FOCUSED SITE ASSESSMENT REPORT

COLLEGE AVENUE STEAM PLANT
PULLMAN, WASHINGTON

Prepared for
PORT OF WHITMAN COUNTY
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The material and data in this report were prepared under the supervision and direction of the undersigned.

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03-30-2022

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ACRONYMS AND ABBREVIATIONS

ACM	asbestos-containing material
AOC	area of concern
AST	aboveground storage tank
CMMP	contaminated media management plan
COC	chemical of concern
CSM	conceptual site model
CUL	cleanup level
DRO	diesel-range organics
EPA	U.S. Environmental Protection Agency
FSA	focused site assessment
ft bgs	feet below ground surface
HBM	hazardous building materials
IHS	indicator hazardous substance
LBP	lead-based paint
MFA	Maul Foster & Alongi, Inc.
MTCA	Model Toxics Control Act
NWTPH	Northwest Total Petroleum Hydrocarbons
PAH	polycyclic aromatic hydrocarbon
Parametrix	Parametrix, Inc.
PCB	polychlorinated biphenyl
Port	Port of Whitman County
the Property	College Avenue Steam Plant
PVC	polyvinyl chloride
RRO	residual-range organics
TerraGraphics	TerraGraphics Environmental Engineering, Inc.
ug/L	micrograms per liter
ug/m^3	micrograms per cubic meter
UST	underground storage tank
VOC	volatile organic compound
WAC	Washington Administrative Code
WSU	Washington State University

1 INTRODUCTION

Maul Foster & Alongi, Inc. (MFA), has prepared this focused site assessment (FSA) report for the Port of Whitman County (the Port). The report describes the field activities and results of the FSA conducted at the College Avenue Steam Plant (the Property) (see Figure 1-1).

1.1 Regulatory Framework

The Port of Whitman County received an Integrated Planning Grant from the Washington State Department of Ecology for property assessment and development of a community-based plan for redevelopment of the Property in the City of Pullman, Washington. The FSA was conducted in general accordance with guidance put forth in the Model Toxics Control Act (MTCA) (Revised Code of Washington 70.105d) and its implementing regulations (Washington Administrative Code [WAC] 173-340).

1.2 Purpose and Objectives

The purpose of the FSA is to evaluate the presence of environmental impacts at selected areas of concern (AOCs) on the Property. The AOCs are discussed in detail in Section 2. Data generated by the FSA will support risk screening and evaluation of potential supplemental Property characterization (if necessary) and cleanup actions (as applicable). The results of the FSA are intended to support the following project objectives:

- Development of a preliminary conceptual site model (CSM)
- Characterization of the presence of potentially hazardous substances in environmental media near potential sources of contamination
- Evaluation of potential risk to current and likely future receptors on the Property
- Evaluation of potential cleanup options for impacted media at the Property

A hazardous building materials (HBM) survey was conducted as part of this scope, and the findings and documentation are included in this submittal. Note, however, remediation and disposal of HBM will be conducted under a program separate from the remedial action for soil, groundwater, and vapor. Therefore, any HBM identified during this FSA will not be evaluated as part of the cleanup action options.

1.3 Property Description

The Property is in section 5, township 14 north, range 45 east of the Willamette Meridian. The Property is located in Whitman County and comprises the following tax parcels (or partial tax parcels as indicated) (see Figures 1-1 and 1-2):

- 1-1230-00-01-01-0001 #369

- 1-1230-00-01-01-0001 #401
- 1-1230-00-08-04-0001 #379 (partial)
- 1-1230-00-08-04-0001 #380 (partial)
- 1-1230-00-08-04-0001 #401
- 8-1460-00-00-00-0067 #22 (partial)
- 1-1230-00-08-04-0001 #17 (partial)

The approximately entire 2.25-acre site is located within the Washington State University (WSU) comprehensive plan designation, which is placed upon all WSU-owned property within the Pullman city limits and is subject to the development regulations imposed therein. Only a portion of the site will be reused by the Port, which is outlined in yellow on Figure 1-2. The area selected for reuse is the area addressed by this FSA and will referred to as "the Property" for the remainder of this report.

The approximately 20,000-square-foot building on the southeast corner of the Property comprises three sections described here from north to south: the campus heating system (natural gas-powered boilers), the boiler control room and shop area, and the former steam plant operations area. The former steam plant operations area is proposed for reuse by the Port, as shown in Figure 1-3, and has a building footprint that is approximately 12,365 square feet. Two aboveground storage tanks (ASTs) formerly containing diesel (i.e., bunker C fuel), and an Avista Corporation electrical substation (Avista electrical substation) are located north and west of the main building. The ASTs are on the Property and the substation is off the Property.

Other features include supply well pump houses (only one is active) and phone and internet communications buildings, located off the Property. The gravel lot that occupies the west portion of the Property was used for bulk coal storage during steam plant operations. The surrounding area, including the WSU campus, is a mix of commercial and residential properties.

1.4 Geology and Hydrogeology

The Property is located in an area of southeastern Washington referred to as "The Palouse," is characterized by rolling hills and farmland. Palouse geology is characterized by thick (up to 250 feet) wind-deposited loess (silt and clay) underlain by Miocene basalt (USGS and AASG, 1980). Subsurface investigation results indicate that subsurface soil at the Property consists generally of silt and clay underlain by basalt.

The depth to groundwater at the Property is shallow, less than 15 feet below ground surface (ft bgs), perched upon thick layers of basalt, as described above. A groundwater supply well operated by WSU is located at the Property. According to WSU, the supply well intake is 165 feet bgs within fractured basalt. Given the depth and typical hydrogeologic conductivity of basalt, it is unlikely that there is a hydrogeologic connection between the shallow perched water table and the deeper water supply. Based on local topography and surface water location and flow direction, the groundwater gradient at the Property likely is west-southwest toward the South Fork of the Palouse River.

1.5 Property History

The original Steam Plant on the Property, located at 800 NE College Avenue, Pullman, Washington, was constructed by the WSU and operational in 1927. It underwent several additions and major modifications. The original six boilers were shut down in 2003 while two natural gas boilers in the newer, northern portion of the building continue to operate. While originally using coal for fuel, the facility was upgraded with newer technology that uses natural gas to generate steam. The building houses two gas-fired boilers and a small electrical substation, but there is substantial space for redevelopment in the building and associated grounds.

1.6 Previous Investigations

MFA was provided the following historical environmental reports for the Property:

- **Independent remedial action report, WSU power plant oil storage area** (Parametrix, Inc. [Parametrix], 1997)—In 1996, a remedial action was conducted in the area identified as previously storing diesel, oil, and other lubricants where petroleum and polychlorinated biphenyl (PCB) contamination was identified by WSU. Soil impacted with petroleum and PCBs was excavated to the extent possible during this remediation. Confirmation samples showed that impacted soil remained in two areas that could not be excavated, beneath a concrete pad and beneath the eastern retaining wall. Excavation beneath these structures was not feasible and the remaining impacted soil was left in place.
- **Former Steam Plant Coal Storage Site, Subsurface Boring Event** (TerraGraphics Environmental Engineering, Inc. [TerraGraphics], 2007)—In 2007, a subsurface investigation was conducted in the bulk coal storage area to assess potential impacts to soil. Sixteen soil borings were advanced up to 15 ft bgs in the coal stockpile area. Soil samples were analyzed for polycyclic aromatic hydrocarbons (PAHs), PCBs, and metals. The investigation showed that up to 1 foot of coal material remained on the surface of the coal bulk storage area. Beneath that, the subsurface consisted of native silt and clay. Only one soil sample showed exceedances of MTCA Method A cleanup levels (CULs) for unrestricted land use for PAHs.
- **Line and Tank Cleaning** (CCS, 2007)—A letter proposal describing asbestos abatement, cleaning, and flushing of ASTs, and product lines. A report containing results of this work was not provided. The facility manager confirmed that the work was completed.
- **Asbestos Inspection** (Strata Geotechnical, 2008)—In 2008, an asbestos inspection of the College Avenue steam tunnel was conducted as part of a campus lighting and wiring project. The inspection included sampling of wiring, conduit pipe, and insulation in the tunnel beneath College Avenue for asbestos-containing materials (ACM). Three of the analyzed samples, all associated with wire insulation in the junction box at the Fulmer Spur of the tunnel, contained ACM. The report did not include a figure showing the locations of the samples or the spur.
- **Lead and Asbestos Inspection** (TerraGraphics, 2008)—A lead and asbestos survey was conducted in 2008 as part of a restroom improvement project at the College Avenue Steam

Plant. Samples were collected from the restrooms (rooms 19 and 107), the boiler room basement, and the main floor north wall at the water fountain. ACM was identified in insulation, fittings, and hard pipe associated with the thermal insulation system located in the basement boiler room. Lead coatings were identified in five samples collected from the plaster wall in room 107, the wall and ceiling in room 19, and the boiler and orange piping in the boiler room.

- **Asbestos Management Program, shops good faith survey summary** (WSU, 2014)—Samples of roofing material were collected and analyzed in 2014. ACM was found in silver paint, black tar-like substances, and roofing felt over the southern portion of the steam plant building.

Stand-alone laboratory reports were also provided showing that ACM was identified in several locations in the steam plant.:

- First floor transite panel wall
- First floor bank and white rope
- First floor yellow/brown floor tile
- First floor west wall joint compound (room 102)
- First floor tile and mastic (room 102)
- First floor restroom brown tile mastic and grout
- Second floor ceiling (room 2L)
- Fourth floor black mastic (room 405L)
- Water heater gaskets (floor and room not specified)

2 AREAS OF CONCERN

This section discusses known and suspected areas of contamination at the Property, based on identified features of interest associated with historical operations, areas of contamination identified during previous sampling activities, and the nature and extent of contaminants of concern (COCs).

AOCs have been identified based on activities, conveyances, and physical features (e.g., equipment, tanks, and vaults), associated with current features and former steam plant operations, which may have resulted in a release of hazardous substances to environmental media at the Property (see Figure 1-3).

2.1 AOC 1: Former Steam Plant Operations Building

The former steam plant operations building is an AOC, based on the use of coal in the plant. Additionally, soil vapors associated with coal and diesel in the subsurface may be present. Historical reports also indicate that ACM and lead-based paint (LBP) are present inside the steam plant building.

2.2 AOC 2: Coal Bulk Storage and Transport Area

During steam plant operations, coal was transported via railcar to the Property where it was offloaded and stored in the area shown in Figure 1-3. Heavy equipment was used to transport the material from the railcar for storage and use at the Property. PAHs were identified in historical borings (TerraGraphics, 2007) in the bulk storage area. PAHs, volatile organic compounds (VOCs), and diesel-range organics (DRO) may be present in soil and groundwater at the Property due to storage and transport of coal at the Property.

2.3 AOC 3: Former Diesel Tank Farm

Two diesel ASTs are located at the Property. The ASTs have been decommissioned and are not in use. Historical use and potential leaks or surface spills may have occurred at the Property and diesel- and heavy-oil-range hydrocarbons and their associated constituents may be present in the subsurface soil and groundwater.

2.4 AOC 4: Avista Electrical Substation

An electrical substation is adjacent to the Property. Historically, transformers used at the substation held PCB-containing oil. PCBs may be present in the subsurface as a result of leaking or spillage during operations.

2.5 AOC 5: Historical Oil Storage Area

This area is identified in an independent remedial action report (Parametrix, 1997) as an area of historical petroleum and PCB contamination. Confirmation samples taken within the extent of the excavation showed that impacted soil remained in two areas: beneath a concrete pad and beneath the eastern retaining wall. Excavation beneath these structures was not feasible and the remaining impacted soil was left in place.

In 2001, WSU constructed an addition to the steam plant building to house boilers for campus heating. The footprint of the addition occupies the location of the historical contamination and the former concrete pad. It is unknown whether the remaining contamination was removed during construction activities and or whether petroleum and PCBs may still be present in this area.

3 FIELD AND ANALYTICAL METHODS

The FSA field investigation was conducted in general accordance with the methods and protocol described in the work plan (MFA, 2021). Standard field operating procedures for collecting soil samples, scheduling analyses, decontaminating equipment, and managing waste are described in the sampling and analysis plan, included as Appendix A of the work plan. As described in the work plan,

the FSA objectives as they relate to hazardous substances potentially present at the Property include the following:

- Characterization of potential source areas through the collection of environmental samples for observation, field screening, and chemical analyses
- Evaluation of the nature and distribution of COCs in media surrounding the selected AOCs
- Evaluation of the nature and distribution of COCs in building materials in the selected steam plant building areas
- Evaluation of risk to current and reasonably likely future human and ecological receptors
- Evaluation of potential cleanup options, if deemed necessary

To achieve these objectives, the FSA field investigation of the AOCs included the following elements:

- Soil sampling
- Groundwater sampling
- Sub-slab soil vapor sampling
- Hazardous building materials survey

The elements of the investigation are described in the following sections.

3.1 Soil

On October 19, 2021, MFA conducted the FSA subsurface investigation to identify the potential or residual impacts to soil at the AOCs, as described in Section 2. Six continuous soil cores (SB-1, SB-2, SB-3, SB-5, SB-6, and SB-7) were advanced from ground surface to the boring completion depth, using direct-push drilling methods.

Visual and olfactory observations were recorded on the soil boring log. Due to a malfunction of the photoionization detector, not all soil samples were screened during field work. The locations of the seven borings are shown in Figure 1-3. Some boring locations indicated in the work plan were moved or combined because of underground utilities identified by ground-penetrating radar. Location SB-4 was not completed due to the location of underground utilities. Boring logs for each location are included in Appendix A. Appendix B presents field sampling data sheets summarizing soil samples collected from each boring location.

Boring locations SB-1, SB-2, and SB-3 were advanced along the western boundary of the Property, within the bulk coal storage area, and inferred downgradient direction of the former diesel ASTs and storage areas. The borings were advanced to 16, 17, and 16 ft bgs, respectively. Subsurface soil consisted of grayish brown, silty sand and gravel with coal and trace woody or brick debris. Soil was field screened for the potential presence of VOCs commonly associated with petroleum fuel products. Two soil samples from each boring were collected from these locations and analyzed for the following:

- Total metals by U.S. Environmental Protection Agency (EPA) Method 6020B

- Total mercury by EPA Method 7470A/7471B
- VOCs by EPA Method 8260C
- PAHs by EPA 8270E-SIM (2.0 and 2.5 ft bgs sample depths only)
- DRO by the Northwest Total Petroleum Hydrocarbons (NWTPH)-Dx Method
- Residual oil-range organics (RRO) by the NWTPH-Dx Method

Boring location SB-5 was advanced downgradient of the location of the former diesel AST tank farm and the Avista electrical substation (see Figure 1-3). The boring was advanced to 20 ft bgs. Subsurface soil consisted of silty sand and sandy silt, with coal fragments from 3.0-3.8 ft bgs. Soil was field screen using a photoionization detector. Soil samples were collected from depths of 5 and 15 ft bgs. Soil samples collected from location SB-5 were analyzed for the following:

- Total metals by EPA Method 6020B
- Total mercury by EPA Method 7470A/7471B
- PCBs by EPA Method 8082A (for the sample collected at 15 ft bgs only)
- VOCs by EPA Method 8260C
- PAHs by EPA 8270E-SIM
- DRO by the NWTPH-Dx Method
- RRO by the NWTPH-Dx Method

Boring location SB-6 was completed adjacent to a former concrete underground storage tank (UST) on the east side of the steam plant building (see Figure 1-3). The boring initially advanced to 2.5 ft bgs where refusal was met. A second attempt was made, and refusal was met a 3.0 ft bgs. The boring was not advanced deep enough to collect soil from a similar depth as the UST therefore, soil from this boring was neither screened nor sampled.

Boring location SB-7 was completed downgradient of the historical oil storage area and Avista electrical substation (see Figure 1-3). The boring was advanced to 21 ft bgs. Soils were screened in approximately 3-foot intervals, when recovered. Dark brown gravelly sand with silt and trace coal fragments were observed from the surface to a depth of 5.4 ft bgs, when recovered. Below that, brown silt was observed, becoming sandy from 12.5 to 20 ft bgs. Samples were collected at 7.5 and 18.5 ft bgs. Samples were analyzed for the following:

- Total metals by EPA Method 6020B
- Total mercury by EPA Method 7471B
- PCBs by EPA Method 8082A
- VOCs by EPA Method 8260C
- PAHs by EPA 8270E-SIM
- DRO by the NWTPH-Dx Method
- RRO by the NWTPH-Dx Method

3.2 Groundwater

Reconnaissance groundwater samples were collected from borings SB-1, SB-2, SB-3, SB-5, and SB-7 to evaluate the potential for COCs. Groundwater sampling was conducted using the methods and protocol outlined in the FSA work plan (MFA, 2021). Appendix B includes field sampling data sheets detailing groundwater sampling activities.

At boring SB-1, groundwater was encountered at 14.1 ft bgs during drilling activities and stabilized at 12.95 ft bgs. A temporary well was installed in this boring, constructed of 2-inch-diameter schedule 40 polyvinyl chloride (PVC) casing and screened with a 0.01 slot, prepacked, schedule 40 PVC screen from 11 to 16 ft bgs. Groundwater was purged using a submersible pump, and a water quality meter was used to record water quality parameters. A groundwater sample was collected when the field parameters had stabilized and was submitted for the following laboratory analyses:

- Total metals by EPA Method 6020B
- Total mercury by EPA Method 7470A
- VOCs by EPA Method 8260D
- PAHs by EPA Method 8270E-SIM
- DRO by the NWTPH-Dx Method
- RRO by the NWTPH-Dx Method

At boring location SB-2, groundwater was first encountered at 15.1 ft bgs and stabilized at 12.95 ft bgs. The temporary well was screened from 12 to 17 ft bgs. Groundwater was purged using a submersible pump, and a water quality meter was used to record water parameters until stabilization was reached. A groundwater sample was collected for the following laboratory analyses:

- Total metals by EPA Method 6020B
- Total mercury by EPA Method 7470A
- VOCs by EPA Method 8260D
- PAHs by EPA Method 8270E-SIM
- DRO by the NWTPH-Dx Method
- RRO by the NWTPH-Dx Method

At boring location SB-3, groundwater was first encountered at 13.3 ft bgs and stabilized at 12.42 ft bgs. A temporary well was constructed with a screened interval from 11.0 to 16.0 ft bgs. Groundwater was purged using a peristaltic pump. Water quality parameters were recorded until stabilization was reached. A groundwater sample was collected for the following laboratory analyses:

- Total metals by EPA Method 6020B
- Total mercury by EPA Method 7470A
- VOCs by EPA Method 8260D
- PAHs by EPA Method 8270E-SIM
- DRO by the NWTPH-Dx Method
- RRO by the NWTPH-Dx Method

At boring location SB-5, groundwater was first encountered at 16.0 ft bgs and stabilized at 15.5 ft bgs. The temporary well was constructed and screened from 15.0 to 20.0 ft bgs. Groundwater was purged, using a peristaltic pump. Water quality parameters were recorded until stabilization was reached. A groundwater sample was collected for the following laboratory analyses:

- Total metals by EPA Method 6020B
- Total mercury by EPA Method 7470A
- VOCs by EPA Method 8260D
- PAHs by EPA Method 8270E-SIM
- DRO by the NWTPH-Dx Method
- RRO by the NWTPH-Dx Method

At boring location SB-7, groundwater was first encountered at 18.7 ft bgs and stabilized at 16.57 ft bgs. The temporary well was constructed and screened from 16.0 to 21.0 ft bgs. Groundwater was purged, using a peristaltic pump. Water quality parameters were recorded until stabilization was reached. A groundwater sample was collected for the following laboratory analyses:

- VOCs by EPA Method 8260D
- PAHs by EPA Method 8270E-SIM
- PCBs by EPA Method 8082A
- DRO by the NWTPH-Dx Method
- RRO by the NWTPH-Dx Method

Metals analysis was inadvertently omitted from the analysis request for the groundwater sample collected from boring SB-7.

3.3 Sub-Slab Soil Vapor

On November 12, 2021, MFA conducted sub-slab soil vapor sampling to identify the potential or residual impacts to soil vapor beneath the steam plant building, as described in Section 2. Three soil vapor sampling points (VP-1, VP-2, and VP-3) were installed in the concrete slab of the portion of the building intended for reuse (see Figure 1-3). Sub-slab samples were collected by installing temporary sampling ports through the concrete floor. The sampling ports were sealed, and vapor samples were collected in Summa canisters for analytical testing. A plastic shroud was placed over the sample train and filled with helium as a leak-check compound. The sample train was purged with a peristaltic pump before sample collection and the lines were monitored for leaks using a helium detection meter. Field sampling data sheets for sub-slab soil vapor sampling are included in Appendix B. Each of the soil vapor samples were submitted for the following laboratory analyses:

- VOCs by Method TO-15
- Helium by Method ASTM 1946

3.4 Hazardous Building Materials Survey

In October 2021, MFA conducted an HBM survey for the area of the steam plant building that is planned for reuse (see Figure 1-2). The survey was conducted by certified Asbestos Hazard Emergency Act building inspectors.

The survey included the use of a portable X-ray fluorescence device to screen materials for the presence of LBP; sampling and analysis of suspected ACM; and visual inspection and tracking of suspected PCB-containing fixtures, mercury-containing fixtures, and other potentially hazardous materials. Field and analytical methods are further described in the hazardous materials survey report included in Appendix C.

4 ANALYTICAL RESULTS

Soil and groundwater analytical results were compared to the MTCA Method A CULs. When chemicals were detected that are not included in the Method A list, then the MTCA Method B soil and/or groundwater CULs for unrestricted land use were used. Soil vapor analytical results were compared to MTCA Method B for indoor air. Analytical results are included in Tables 4-1 (soil), 4-2 (groundwater), and 4-3 (soil vapor). Detections below the reporting limits are recorded as the respective method reporting limit on the analytical tables and denoted with a "U" qualifier. Analytical reports are included in Appendix D. The data validation memorandum is included in Appendix E.

4.1 Soil Borings

The soil samples collected from SB-1, SB-2, and SB-3 were analyzed to determine whether metals, VOCs, PAHs, DRO, and RRO associated with bulk coal storage and former diesel use and storage at the Property were present. Concentrations for all analytes were below the reporting limit or less than the CULs in all samples collected from borings SB-1, SB-2, and SB-3.

At location SB-5, samples were analyzed to determine whether metals, VOCs, PCBs, PAHs, DRO, and RRO associated with the substation or former diesel use and storage at the Property were present. Concentrations for all analytes were below the reporting limit or less than the CULs in all samples collected from boring SB-5.

At location SB-7, samples were analyzed to determine whether metals, VOCs, PCBs, PAHs, DRO, and RRO associated with the substation or former diesel use and storage at the Property were present. Concentrations for all analytes were below the reporting limit or less than the CULs in all samples collected from boring SB-7.

4.2 Groundwater

A groundwater sample was collected from borings SB-1, SB-2, SB-3, SB-5, and SB-7 to determine whether the COCs associated with the former operations at each AOC were present. COCs were

below the reporting limit or less than the CULs (see Table 4-2), with exception of the sample collected from SB-7.

Groundwater collected from SB-7 had a concentration DRO of 512 micrograms per liter (ug/L), exceeding the MTCA Method A CUL of 500 ug/L. Reconnaissance groundwater samples are not relied upon for characterization purposes due to possible matrix interference; therefore, they may not represent groundwater quality. The diesel concentration may be biased high due to matrix interference in sample SB-7. Groundwater quality is unknown and is considered a data gap.

4.3 Soil Vapor

Soil vapor was collected at sample points VP-1, VP-2, and VP-3 (Figure 1-3). Each of the soil vapor samples were analyzed for VOCs and helium (Table 4-3). Helium analysis was completed to determine whether the sample train was sealed and confirm that only vapor from beneath the concrete slab was collected in each sample. All three samples were non-detect for helium.

Sample VP-1 was collected from beneath the concrete slab on the southwest corner of the area proposed for reuse. Analytical results showed that 1,4-dioxane and benzene were above MTCA Method B CULs, with concentrations of 0.84 and 7.12 micrograms per cubic meter (ug/m^3), respectively.

Sample VP-2 was collected from beneath the concrete slab on the northwest corner of the area proposed for reuse. Analytical results did not show VOCs above CULs in sub-slab vapor collected from this location.

Sample VP-3 was collected from beneath the concrete slab on the northeast corner of the area proposed for reuse. Analytical results showed that benzene was above the MTCA Method B CUL with a concentration of 0.747 ug/m^3.

4.4 Hazardous Building Materials Survey

ACM and LBP were identified within the building area proposed for reuse. Additionally, fixtures potentially containing PCBs, mercury, and other hazardous materials were identified at the Property. The hazardous building materials survey report, included in Appendix C, details these findings.

5 CONCEPTUAL SITE MODEL

5.1 Summary

The CSM describes potential chemical sources, release mechanisms, environmental transport processes, exposure pathways, and receptors. Development of a CSM is dynamic and iterative and may be refined as additional information becomes available. The primary purpose of the CSM is to describe pathways by which human and ecological receptors could be exposed to Property-related

chemicals. A complete exposure pathway consists of four necessary elements: (1) a source and mechanism of chemical release to the environment, (2) an environmental transport medium for a released chemical, (3) a point of potential contact with the impacted medium (referred to as the exposure point), and (4) an exposure route (e.g., soil ingestion) at the exposure point. The CSM describes potential exposure scenarios based on information collected during the Property assessment. All components and the relationships between them are fundamental in determining potential adverse effects that could be posed by COCs at the Property. Elements of potentially complete exposure scenarios relevant to human health and ecological receptors are discussed below and are presented in Figure 5-1.

5.2 Source Characterization

Historically, the Property operated as coal fired steam plant. COCs for the Property include metals, VOCs, PCBs, PAHs, DRO, and RRO. Based on current and previous investigations, sources of COCs at the Property include the historical use and storage of petroleum products, historical use and storage of bulk coal material, and operation of an electrical substation adjacent to the Property. The release mechanism from these sources is likely related to potential spills while transporting and unloading of process materials, petroleum fuel refueling for the USTs, petroleum fuel leakage from heavy equipment used to transport process materials, and potential leakage of PCB oil from transformers.

Based on the 2021 investigation results, it appears that historical operations have adversely impacted groundwater at the Property. Specific impacted areas and COCs are described below:

- Soil beneath the 2001 boiler room addition potentially remains impacted, per the findings of the 1997 Parametrix investigation.
- Groundwater on the northwest side of the steam plant building has impacts from DRO. This impact is likely related to a historical diesel spill in the area beneath the current boiler room, prior to the addition of this portion of the building.
- Soil vapor beneath the original steam plant building is impacted with VOCs likely associated historical operations. The source of these impacts has not been determined.

5.3 Fate and Transport Processes

Contaminant releases to the surface or subsurface have the potential to migrate vertically and laterally to the water table, resulting in impacts to subsurface soil and shallow groundwater beneath the Property. Contaminants in surface and subsurface soil may also partition to the vapor phase, which could impact indoor and/or outdoor air quality.

Dissolved-phase groundwater contamination in the underlying groundwater may volatize into soil vapor in the overlying vadose zone after migration via groundwater transport. Contaminant vapors partitioned from contaminated groundwater could impact indoor and/or outdoor air quality.

The primary mechanisms likely to influence the fate and transport of chemicals at the Property include natural biodegradation of organic chemicals, sorption to soil, advection and dispersion in groundwater,

volatilization from soil or groundwater to air, and leaching of chemicals from soil to groundwater. The relative importance of these processes varies, depending on the chemical and physical properties of a released contaminant. The properties of soil and the dynamics of groundwater flow also shape contaminant fate and transport.

Chemicals with sufficiently high solubility could leach from soil to groundwater, and dissolved chemicals could be transported downward to local groundwater. In the dissolved phase, volatilization, dispersion, retardation, and biodegradation may further reduce concentrations of chemicals in groundwater downgradient of a source area.

Volatile chemicals in groundwater or in soil in the vadose zone have the potential to volatilize and migrate in the vapor phase.

5.4 Potential Exposure Scenarios

The following are potentially current exposure pathways:

- Incidental ingestion of, and dermal contact with, chemicals in surface and/or subsurface soil and groundwater
- Inhalation of fugitive dust generated from surface and/or subsurface soil
- Inhalation of outdoor air vapors that have emanated from soil or groundwater
- Inhalation of groundwater or subsurface soil vapors that have intruded into buildings
- Ingestion, dermal contact, and inhalation of chemicals in groundwater used as drinking water
- Inhalation of indoor air vapors that have emanated from soil or groundwater

The following are potentially complete human health exposure pathways:

- **Commercial/construction workers**—there are petroleum impacts to shallow groundwater at the Property. When construction activities are conducted as part of Property redevelopment, construction workers could contact the aforementioned substances, which are identified as indicator hazardous substances (IHSs) because of their elevated detections above MTCA Method A CULs. An IHS is defined as a chemical exceeding a CUL at one or more locations. Because future construction workers may be exposed to the impacted shallow groundwater through ingestion, dermal contact, and inhalation of chemicals volatilizing from groundwater, appropriate protection of construction workers is warranted.
- **Building occupants**—there are VOC impact to soil vapor beneath the building. Upon occupation of the building, occupants could potentially be exposed to IHS via vapor intrusion pathways. Because future occupants may be exposed to the impacted vapor through inhalation of chemicals volatilizing from soil or groundwater, appropriate protection of building occupants is warranted.

5.5 Potential Receptors

The following current and future human receptors may potentially be exposed to chemicals originating from the Property:

- Occupational workers/residents
- Construction workers

6 RISK SCREENING

The soil, groundwater, and soil vapor sample analytical results were compared to the MTCA Method A CULs for unrestricted land use, or MTCA Method B CULs when MTCA Method A CUL values were unavailable. IHSs are evaluated below by comparing the concentrations found in soil, groundwater, and soil vapor to their respective CULs.

6.1 Soil

Soil analytical data for this FSA are included in Table 4-1.

During the 2021 investigation, the soil sample collected from each of the borings did not exceed MTCA CULs.

In 1997, petroleum and PCB impacts to soil were encountered on the Property beneath a concrete pad and beneath the eastern retaining wall. (Parametrix, 1997). Excavation beneath these structures was not feasible and the remaining impacted soil was left in place.

In 2001, WSU constructed an addition to the steam plant building to house boilers for campus heating. The footprint of the addition occupies the location of the historical contamination and the former concrete pad. It is possible that contamination may still be present beneath the addition footprint.

In 2007, TerraGraphics, conducted a subsurface investigation in the bulk coal storage area to assess potential impacts to soil. The investigation showed that up to 1 foot of coal material remained on the surface of the coal bulk storage area. One soil sample showed exceedances of MTCA Method A CULS for PAHs.

Petroleum, PAHs, and PCBs are considered as IHSs for the investigation area where detections had exceeded their respective CULs. Additionally, the remaining coal layer in the former bulk coal storage area is a potential source of PAH impacts to soil.

6.2 Groundwater

Groundwater analytical data for this FSA are included in Table 4-2.

In the groundwater samples collected during this investigation, DRO was detected above the 500 ug/L MTCA Method A CUL in the samples collected from location SB-7 (512 milligrams per kilogram). Remaining COCs were below the MTCA Method A CULs or below reporting limits.

Petroleum is considered a potential groundwater IHS for the Property because of elevated detections in a reconnaissance sample. Additionally, the remaining coal layer in the former bulk coal storage area is a potential source of PAH impacts to groundwater. Groundwater samples will need to be collected from monitoring wells to assess chemical impacts, if any.

6.3 Vapor

Sub-slab soil vapor analytical data for this FSA are included in Table 4-3.

In the soil vapor samples collected during this investigation, VOCs were detected above their respective MTCA Method B CULs. In VP-1, 1,4-dioxane was above the MTCA Method B CUL of 0.5 ug/m^3, with a concentration of 0.84 ug/m^3. Benzene was also above the MTCA Method B CUL of 0.32 ug/m^3 in samples collected from VP-1 and VP-3, with concentrations of 7.12 ug/m^3 and 0.747 ug/m^3, respectively.

VOCs, namely 1,4-dioxane and benzene, are considered soil vapor IHSs for the investigation area because of their elevated detections.

6.4 Summary

Petroleum and PCBs are the common IHSs identified in the soil media at the Property. Petroleum is the a potential IHS in the groundwater at the Property. VOCs (1,4-dioxane and benzene) are the common IHSs identified in soil vapor at the Property

The impacted soil identified in the 1997 investigation is associated with the former diesel and oil storage area. However, the impacts are beneath the footprint of the boiler room addition, and therefore the likelihood is low for the residual petroleum-contaminated soil to pose environmental concerns or risks to human health.

7 CLEANUP OPTION DEVELOPMENT

One of the objectives of this FSA is to identify and evaluate cleanup options that reduce contaminant exposure to levels that are protective of human health and the environment and are appropriate for meeting the CULs at the Property. As previously noted, this section identifies feasible cleanup technologies to address exceedances of MTCA Method A CULs in soil, groundwater, and sub-slab vapor and assembles those technologies into potential options.

Applicable remedial technologies to address contaminants in each medium are independent of each other. For this reason, cleanup options were developed for individual media and then combined into larger combined cleanup alternatives.

7.1 Cleanup Technologies

Prior to the development of cleanup options, various technologies were evaluated for applicability to address exceedances of established COCs. Technologies that were unlikely to be effective or significantly cost prohibitive were not considered further.

7.1.1 Groundwater Cleanup Technologies

The following technologies were initially considered for addressing groundwater on the Property with concentrations of DRO above CULS:

- Institutional controls
- In situ bioremediation
- In situ chemical oxidation
- Pump and treat
- Monitored natural attenuation

The density of silts observed during subsurface investigation on the Property prevents effective dispersion of chemical treatments in the subsurface and restricts the rate of groundwater flow. For this reason, in situ chemical oxidation, in situ bioremediation, and pump and treat were not considered further.

7.1.2 Soil Cleanup Technologies

The following technologies were initially considered for addressing coal and coal impacted soils on the Property:

- Capping
- Excavation and offsite disposal

Both technologies were retained for further analysis.

7.1.3 Vapor Cleanup Technologies

The following technologies were initially considered for addressing sub-slab vapor on the Property:

- Institutional controls
- Passive venting
- Active venting
- Crack sealing

- Heating, ventilation, and air conditioning improvements

The building slab is thick and assumed to have minimal points of potential vapor intrusion. With the intended building use, the basement will have limited occupation and the sub-basement will not be occupied. Active venting was determined to be not necessary based on the analytical data and building configuration and was not retained for further analysis.

7.2 Preliminary Cleanup Options

7.2.1 Groundwater

The following options were considered to address concentrations of DRO above CULs in groundwater in the Property assuming follow up monitoring well samples confirm elevated detections: institutional controls and monitored natural attenuation.

7.2.1.1 Groundwater Option 1: Institutional Controls

Groundwater Option 1 does not include any active remediation or monitoring and instead relies on institutional controls to remain protective.

Institutional Controls: Prepare an environmental covenant for the Property prohibiting the use of groundwater. Groundwater monitoring is not proposed for the Property under this option.

7.2.1.2 Groundwater Option 2: Monitored Natural Attenuation

Groundwater Option 2 consists of monitored natural attenuation using groundwater monitoring wells to reduce direct-contact exposure risks for current and future occupants of the Property.

Groundwater Monitoring: Install three groundwater monitoring wells to a depth of 15 ft bgs. Groundwater will be monitored quarterly for up to five years. The monitoring period may be increased or decreased depending on the attainment of CULs.

7.2.2 Soil

The following options were considered to address coal impacts in soil on the Property: gravel cap, asphalt cap, and excavation and offsite disposal.

7.2.2.1 Soil Option 1: Gravel Cap

Soil Option 1 consists of installing a gravel cap over the area outside of the building footprint to reduce direct-contact exposure risks for current and future occupants of the Property. Soil Option 1 includes the following elements:

Rough Grading: Grade site prior to cap installation to even out any potholes or low spots that could prevent proper drainage.

Capping: Place a non-woven geotextile demarcation fabric over the former coal stockpile footprint and cap with a one-foot-thick lift of imported gravel. Proposed cap is assumed to be 4,000 square yards.

Inspection and Maintenance: Inspect gravel cap annually for erosion and other damage. Observations from the inspection will be documented in a cap inspection report. Maintenance will consist of bringing additional material onto the site and regrading, as necessary. For comparative purposes, the lifetime of the remedy is considered to be 30 years and it is assumed that repairs are required every five years.

Institutional Controls: Prepare an environmental covenant for the Property requiring the development and application of a contaminated media management plan (CMMP), addressing the management and disposal of contaminated soils during excavation, repairs, or other subsurface work.

7.2.2.2 Soil Option 2: Asphalt Cap

Soil Option 2 consists of installing an asphalt cap to reduce direct-contact exposure risks for current and future occupants of the Property.

Rough Grading: Grade site prior to cap installation to even out any potholes or low spots that could prevent proper drainage.

Capping: Place demarcation fabric over former coal stockpile footprint, place 8-inch aggregate base layer, and cap with 4 inches of asphalt.

Inspection and Maintenance: Inspect asphalt cap annually for erosion and other damage. Observations from the inspection will be documented in a cap inspection report. Maintenance will consist of patching wear areas and applying a slurry, as necessary. For comparative purposes, the lifetime of the remedy is considered to be 30 years and it is assumed that repairs are required every ten years.

Institutional Controls: Prepare an environmental covenant for the Property requiring the development and application of a CMMP as described in Section 7.2.2.1.

7.2.2.3 Soil Option 3: Excavation and Offsite Disposal

Soil Option 3 consists of excavating and disposing of coal and soil with visual coal impacts to reduce direct-contact exposure for current and future occupants of the Property.

Pre-design Investigation: Conduct additional sampling in proposed excavation are to identify the extent of coal impacts and inform excavation design.

Excavation: Coal and soil with visual coal impacts will be selectively excavated, characterized, and disposed of offsite at a licensed Subtitle D landfill. Excavation volumes will depend on the extent of impacted material identified during the pre-design investigation and onsite observations.

Backfill: Backfill site with clean import material and grade to restore site to initial grade.

Institutional Controls: Prepare an environmental covenant for the Property requiring the development and application of a CMMP, as described in Section 7.2.2.1, for use in the event contaminated soil remains after removal is complete and is later discovered during subsurface work.

7.2.3 Vapor

The following options were considered to address sub-slab vapor exceedances underneath the building: institutional controls and crack sealing, passive venting, and door improvements.

7.2.3.1 Vapor Option 1: Institutional Controls

Vapor Option 1 relies on building upgrades and an environmental covenant to reduce vapor-contact exposure risks to current and future occupants of the Property.

Heating, Ventilation, and Air Conditioning: Under Vapor Option 1 it is assumed that building upgrades will include modifications and improvements to the existing heating, ventilation, and air conditioning system that will keep the building properly pressurized and prevent vapor intrusion.

Institutional Controls: Prepare an environmental covenant for the Property documenting vapor impacts.

7.2.3.2 Vapor Option 2: Crack Sealing, Passive Venting, and Door Improvements

It is our understanding that the sub-basement does not currently have occupancy, nor is expected to have in occupants in the future. Consequently, this option involves sealing the door and providing some air transfer outdoors in the event minor emissions from the vadose zone occur within the sub-basement. Vapor Option 2 consists of sealing cracks in the building slab, installation of a gas-tight door from the basement to the sub-basement, and construction of a sub-slab passive vent pipe in the sub-basement to reduce vapor-contact exposure risks to current and future occupants of the Property.

Pre-design Inspection: Conduct inspection of basement and sub-slab basement to assess cracks and areas of potential vapor intrusion.

Crack Sealing: Seal cracks and seams in the concrete building slab with a chemically compatible sealant.

Passive Venting: Install a sub-slab passive vent pipe from below the sub-basement floor to near the roofline.

Sub-Basement Door: Install a new gas-tight door or retrofit the existing door that leads to the sub-basement to limit potential vapor intrusion into the basement from the sub-basement.

Inspections: Inspect basement annually for sealant damage, new cracks, or other changes that could lead to vapor intrusions. Observations from the inspection will be documented in a basement inspection report. Maintenance may consist of reapplying sealant or repairing damage to the door

seal. For comparative purposes, the lifetime of the remedy is considered to be 30 years and it is assumed that repairs are required every ten years.

Institutional Controls: Prepare an environmental covenant for the Property prohibiting occupancy in the sub-basement and requiring annual inspection and maintenance of the vapor remedies.

8 EVALUATION OF CLEANUP ALTERNATIVES

8.1 Model Toxics Control Act Requirements

The criteria used to evaluate cleanup alternatives are defined in the MTCA regulation (WAC 173-340-360). These criteria are as follows:

- **Threshold requirements:**
  - Protect human health and the environment
  - Comply with cleanup standards (WAC 173-340-700 through 173-340-760)
  - Comply with applicable state and federal laws (WAC 173-340-710)
  - Provide for compliance monitoring (WAC 173-340-410 and 173-340-720 through 173-340-760)

- **Other requirements:**
  - Use permanent solutions to the maximum extent practicable
  - Provide for a reasonable restoration time frame
  - Consider public concerns (WAC 173-340-600)

Regarding the threshold requirements, all cleanup options except for Groundwater Option 1 and Vapor Option 1:

- Protect human health and the environment
- Are expected to comply with the CULs
- Include appropriate compliance monitoring
- Would be designed to comply with applicable state and federal laws

8.2 Combined Cleanup Options and Costs

Cleanup options for the separate environmental media were combined into three cleanup alternatives. Groundwater Option 1 and Vapor Option 1 were not incorporated into final cleanup alternatives because it was determined that they would not meet the minimum threshold requirements.

8.2.1 Alternative 1: Gravel Capping, Vapor Sealing, and Monitored Natural Attenuation

Alternative 1 includes all elements from Soil Option 1, Vapor Option 2 and Groundwater Option 2. The probable cost of Alternative 1 is $512,000. This estimate includes a 30 percent contingency for all primary capital costs and a 10 percent contingency for long-term monitoring and maintenance. The estimate is considered to have a confidence level of -30%/+50%. A detailed breakdown of costs and assumptions are provided in Table 8-1.

8.2.2 Alternative 2: Asphalt Capping, Vapor Sealing, and Monitored Natural Attenuation

Alternative 2 includes all elements from Soil Option 2, Vapor Option 2, Groundwater Option 2. The probable cost of Alternative 2 is $587,000. This estimate includes a 30 percent contingency for all primary capital costs and a 10 percent contingency for long-term monitoring and maintenance. The estimate is considered to have a confidence level of -30%/+50%. A detailed breakdown of costs and assumptions are provided in Table 8-2.

8.2.3 Alternative 3: Excavation and Disposal, Vapor Sealing, and Monitored Natural Attenuation

Alternative 3 includes all elements from Soil Option 3, Vapor Option 2, Groundwater Option 2. The probable cost of Alternative 3 is $845,000. This estimate includes a 30 percent contingency for all primary capital costs and a 10 percent contingency for long-term monitoring and maintenance. The estimate is considered to have a confidence level of -30%/+50%. A detailed breakdown of costs and assumptions are provided in Table 8-3.

8.3 Comparison of Alternatives

All three alternatives meet the minimum threshold requirements as defined in MTCA and were retained for further evaluation. Under all alternatives, groundwater CULs will be achieved through monitored natural attenuation. Groundwater concentrations are not significantly higher than the CULs and it is believed that natural degradation will bring concentrations below CULs within a reasonable time frame. The vapor remedy included with the cleanup alternatives effectively prevents exposure by sealing off intrusion pathways and passively venting sub-slab vapors from the sub-basement. Annual inspections of the slab will maintain the integrity of the proposed remedy.

Alternative 3 involves source removal to eliminate exposure risk with coal impacted soils on the Property. While Alternative 3 is the most permanent alternative, it has the highest short-term risks associated with implementation and is more expensive than Alternatives 1 and 2. Current data for the Property around the extent and depths of coal is limited and the scope of excavation required to effectively remove the impacted material may increase significantly. Alternatives 1 and 2 both use capping to prevent direct-contact exposure with coal impacted soils on the Property. While Alternative 2 costs slightly more than Alternative 1, the asphalt cap requires less frequent repairs and prevents

stormwater infiltration through contaminated material. Additionally, Alternative 2 aligns with proposed future use of the Property and could be incorporated into redevelopment costs. While Alternative 3 is more permanent than Alternative 2, the uncertainty associated with the extent of excavation and the increased costs makes Alternative 2 the preferred remedy.

9 CONCLUSIONS AND RECOMMENDATIONS

Alternative 2 is the preferred remedy for the Property. Recommendations for the remediation and redevelopment in the FSA are as follows:

- Install monitoring wells near SB-7 and the boiler room addition and monitor groundwater for natural attenuation.
- Install asphalt cap over the bulk storage area and inspect annually to prevent direct contact with coal material, which may be a chemical and visual concern.
- Seal cracks and seams in the concrete building slab to prevent vapor intrusion.
- Install a passive venting system to capture sub-slab vapors near the sub-basement and direct them to an outdoor vent.
- Seal door that leads from the sub-basement to the basement to prevent potential vapor migration into occupied spaces of the building.

Groundwater data used in remedy development were from reconnaissance samples collected from temporary wells. This data is assumed to be representative of subsurface conditions. However, if groundwater data from monitoring wells indicates the plume has not been adequately characterized, the proposed groundwater remedy may warrant adjustment. The asphalt cap design can be incorporated into site development plans but should be designed to effectively prevent contact with coal material.

LIMITATIONS

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

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TABLES

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Table 4-1
Summary of Soil Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA A, Soil, Unrestricted Land Use[1]	SB-1	SB-1	SB-2	SB-2	SB-3	SB-3	SB-5	SB-5	SB-7	SB-7
Sample Name:		SB-1-2.5	SB-1-15	SB-2-2.0	SB-2-15.0	SB-3-5.0	SB-3-13.0	SB-5-5.0	SB-5-15.0	SB-7-5.5	SB-7-18.5
Collection Date:		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
Collection Depth (ft bgs):		2.5	15.0	2.0	15.0	5.0	13.0	5.0	15.0	5.5	18.5
Total Metals (mg/kg)											
Arsenic	20	4.82	2.97	3.86	3	2.98	4.13	3.42	4.01	3.41	3.3
Barium	NV	190	115	94	114	145	603	237	127	140	100
Cadmium	2	0.224 J	0.102 U	0.288 J	0.103 U	0.284 J	0.382 J	0.473 J	0.153 J	0.117 U	0.11 U
Chromium	2,000[a]	20.3	18.7	20.2	13.9	18.3	11	19	14.9	16.8	21.9
Lead	250	11.7	8.13	13.3	6.01	71.2	7.26	33.5	9.42	6.83	5.86
Mercury	2	0.0206 U	0.0216 U	0.0207 U	0.0217 U	0.0295 J	0.0212 U	0.0511 J	0.0214 U	0.0247 U	0.0231 U
Selenium	NV	0.331 J	0.216 U	0.372 J	0.266 J	0.3 J	0.212 U	0.315 J	0.224 J	0.247 U	0.271 J
Silver	NV	0.0988 U	0.104 U	0.0996 U	0.104 U	0.233 J	0.102 U	0.115 J	0.103 U	0.119 U	0.111 U
PCBs (mg/kg)											
Aroclor 1016	NV	--	--	--	--	--	--	--	0.014 U	0.0162 U	0.0151 U
Aroclor 1221	NV	--	--	--	--	--	--	--	0.014 U	0.0162 U	0.0151 U
Aroclor 1232	NV	--	--	--	--	--	--	--	0.014 U	0.0162 U	0.0151 U
Aroclor 1242	NV	--	--	--	--	--	--	--	0.014 U	0.0162 U	0.0151 U
Aroclor 1248	NV	--	--	--	--	--	--	--	0.00876 U	0.0101 U	0.00947 U
Aroclor 1254	NV	--	--	--	--	--	--	--	0.00876 U	0.0101 U	0.00947 U
Aroclor 1260	NV	--	--	--	--	--	--	--	0.00876 U	0.0101 U	0.00947 U
Total PCBs[b]	1	--	--	--	--	--	--	--	0.014 U	0.0162 U	0.0151 U
VOCs (mg/kg)											
1,1,1,2-Tetrachloroethane	NV	0.00123 U	0.00135 U	0.00138 U	0.00138 U	0.0014 U	0.00129 U	0.00179 U	0.00136 U	0.00168 U	0.00152 U
1,1,1-Trichloroethane	2	0.0012 U	0.00131 U	0.00134 U	0.00134 U	0.00136 U	0.00126 U	0.00174 U	0.00132 U	0.00164 U	0.00148 U
1,1,2,2-Tetrachloroethane	NV	0.000901 U	0.000987 U	0.00101 U	0.00101 U	0.00102 U	0.000948 U	0.00131 U	0.000994 U	0.00123 U	0.00112 U
1,1,2-Trichloroethane	NV	0.000774 U	0.000848 U	0.000868 U	0.000868 U	0.00088 U	0.000814 U	0.00112 U	0.000854 U	0.00106 U	0.000958 U
1,1-Dichloroethane	NV	0.000636 U	0.000697 U	0.000713 U	0.000714 U	0.000723 U	0.00067 U	0.000924 U	0.000702 U	0.000871 U	0.000788 U
1,1-Dichloroethene	NV	0.000785 UJ	0.00086 UJ	0.00088 UJ	0.000881 UJ	0.000893 UJ	0.000827 UJ	0.00114 UJ	0.000866 UJ	0.00108 UJ	0.000972 UJ
1,1-Dichloropropene	NV	0.00105 U	0.00115 U	0.00117 U	0.00118 U	0.00119 U	0.0011 U	0.00152 U	0.00116 U	0.00144 U	0.0013 U
1,2,3-Trichlorobenzene	NV	0.0095 U	0.0104 U	0.0106 U	0.0107 U	0.0108 U	0.01 U	0.0138 U	0.0105 U	0.013 U	0.0118 U
1,2,3-Trichloropropane	NV	0.0021 U	0.0023 U	0.00235 U	0.00235 U	0.00239 U	0.00221 U	0.00304 U	0.00232 U	0.00287 U	0.0026 U
1,2,3-Trimethylbenzene	NV	0.0426	0.00224 U	0.0023 U	0.0023 U	0.0317	0.04	0.0321	0.00226 U	0.0028 U	0.00254 U
1,2,4-Trichlorobenzene	NV	0.0057 U	0.00625 U	0.00639 U	0.00639 U	0.00648 U	0.006 U	0.00828 U	0.00629 U	0.00781 U	0.00706 U
1,2,4-Trimethylbenzene	NV	0.0485 J	0.00224 U	0.0023 U	0.0023 U	0.0318	0.0449	0.034	0.00226 U	0.0028 U	0.00254 U
1,2-Dibromo-3-chloropropane	NV	0.00505 U	0.00554 U	0.00567 U	0.00567 U	0.00575 U	0.00532 U	0.00734 U	0.00558 U	0.00692 U	0.00626 U
1,2-Dibromoethane	0.005	0.00084 U	0.00092 U	0.000941 U	0.000942 U	0.000955 U	0.000884 U	0.00122 U	0.000927 U	0.00115 U	0.00104 U
1,2-Dichlorobenzene	NV	0.000551 U	0.000603 U	0.000617 U	0.000618 U	0.000626 U	0.00058 U	0.0008 U	0.000608 U	0.000754 U	0.000682 U
1,2-Dichloroethane	NV	0.000841 U	0.000922 U	0.000942 U	0.000943 U	0.000956 U	0.000885 U	0.00122 U	0.000928 U	0.00115 U	0.00104 U
1,2-Dichloropropane	NV	0.00184 U	0.00202 U	0.00206 U	0.00206 U	0.00209 U	0.00194 U	0.00268 U	0.00203 U	0.00252 U	0.00228 U
1,3,5-Trimethylbenzene	NV	0.0122 J	0.00284 U	0.0029 U	0.00291 U	0.00907	0.0106	0.0161	0.00286 U	0.00355 U	0.00321 U
1,3-Dichlorobenzene	NV	0.000778 U	0.000852 U	0.000871 U	0.000872 U	0.000884 U	0.000818 U	0.00113 U	0.000858 U	0.00106 U	0.000963 U
1,3-Dichloropropane	NV	0.000649 U	0.000711 U	0.000728 U	0.000728 U	0.000738 U	0.000683 U	0.000943 U	0.000716 U	0.000889 U	0.000804 U
1,4-Dichlorobenzene	NV	0.000907 U	0.000994 U	0.00102 U	0.00102 U	0.00103 U	0.000955 U	0.00132 U	0.001 U	0.00124 U	0.00112 U
2,2-Dichloropropane	NV	0.00179 UJ	0.00196 UJ	0.00201 UJ	0.00201 UJ	0.00203 UJ	0.00188 UJ	0.0026 UJ	0.00197 UJ	0.00245 UJ	0.00221 UJ
2-Butanone	NV	0.0823 U	0.0902 U	0.0923 U	0.0923 U	0.0935 U	0.0866 U	0.12 U	0.0908 U	0.113 U	0.102 U
2-Chlorotoluene	NV	0.00112 U	0.00123 U	0.00126 U	0.00126 U	0.00127 U	0.00118 U	0.00162 U	0.00124 U	0.00154 U	0.00139 U
4-Chlorotoluene	NV	0.000583 U	0.000639 U	0.000654 U	0.000654 U	0.000663 U	0.000614 U	0.000848 U	0.000643 U	0.000799 U	0.000722 U
4-Isopropyltoluene	NV	0.0152 J	0.00362 U	0.0037 U	0.00371 U	0.00891	0.0164	0.0137	0.00365 U	0.00453 U	0.00409 U
4-Methyl-2-pentanone	NV	0.0174 J	0.00324 U	0.00332 U	0.00331 U	0.00336 U	0.0103 J	0.00428 U	0.00326 U	0.00405 U	0.00366 U
Acetone	NV	0.0473 U	0.0518 U	0.053 U	0.053 U	0.0538 U	0.0498 U	0.0941 U	0.0522 U	0.0648 U	0.0586 U
Acrylonitrile	NV	0.00468 U	0.00513 U	0.00524 U	0.00525 U	0.00532 U	0.00492 U	0.00679 U	0.00516 U	0.00641 U	0.00579 U

Table 4-1
Summary of Soil Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA A, Soil, Unrestricted Land Use[1]	SB-1	SB-1	SB-2	SB-2	SB-3	SB-3	SB-5	SB-5	SB-7	SB-7
Sample Name:		SB-1-2.5	SB-1-15	SB-2-2.0	SB-2-15.0	SB-3-5.0	SB-3-13.0	SB-5-5.0	SB-5-15.0	SB-7-5.5	SB-7-18.5
Collection Date:		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
Collection Depth (ft bgs):		2.5	15.0	2.0	15.0	5.0	13.0	5.0	15.0	5.5	18.5
Benzene	0.03	0.00527 J	0.000663 U	0.000679 U	0.000679 U	0.0058	0.0341	0.0113	0.000744 J	0.000829 U	0.000749 U
Bromobenzene	NV	0.00117 U	0.00128 U	0.00131 U	0.00131 U	0.00133 U	0.00123 U	0.0017 U	0.00129 U	0.0016 U	0.00144 U
Bromodichloromethane	NV	0.00094 U	0.00103 U	0.00105 U	0.00105 U	0.00107 U	0.000989 U	0.00136 U	0.00104 U	0.00129 U	0.00116 U
Bromoform	NV	0.00152 U	0.00166 U	0.0017 U	0.0017 U	0.00172 U	0.0016 U	0.0022 U	0.00167 U	0.00208 U	0.00188 U
Bromomethane	NV	0.00255 U	0.0028 U	0.00287 U	0.00286 U	0.0029 U	0.00269 U	0.0037 U	0.00282 U	0.0035 U	0.00316 U
Carbon tetrachloride	NV	0.00116 U	0.00128 U	0.0013 U	0.00131 U	0.00132 U	0.00122 U	0.00168 U	0.00128 U	0.00159 U	0.00144 U
Chlorobenzene	NV	0.000272 U	0.000298 U	0.000305 U	0.000305 U	0.000309 U	0.000286 U	0.000395 U	0.0003 U	0.000373 U	0.000337 U
Chloroethane	NV	0.0022 U	0.00241 U	0.00247 U	0.00247 U	0.0025 U	0.00232 U	0.0032 U	0.00243 U	0.00302 U	0.00273 U
Chloroform	NV	0.00133 U	0.00146 U	0.00149 U	0.0015 U	0.00152 U	0.0014 U	0.00194 U	0.00147 U	0.00183 U	0.00165 U
Chloromethane	NV	0.00564 UJ	0.00618 UJ	0.00632 UJ	0.00632 UJ	0.00641 UJ	0.00593 UJ	0.00819 UJ	0.00622 UJ	0.00772 UJ	0.00698 UJ
cis-1,2-Dichloroethene	NV	0.000951 U	0.00104 U	0.00107 U	0.00107 U	0.00108 U	0.001 U	0.00138 U	0.00105 U	0.0013 U	0.00118 U
cis-1,3-Dichloropropene	NV	0.000981 U	0.00107 U	0.0011 U	0.0011 U	0.00112 U	0.00103 U	0.00142 U	0.00108 U	0.00134 U	0.00121 U
Dibromochloromethane	NV	0.000793 U	0.000869 U	0.000889 U	0.000889 U	0.000902 U	0.000835 U	0.00115 U	0.000875 U	0.00109 U	0.000982 U
Dibromomethane	NV	0.000972 U	0.00106 U	0.00109 U	0.00109 U	0.0011 U	0.00102 U	0.00141 U	0.00107 U	0.00133 U	0.0012 U
Dichlorodifluoromethane (Freon 12	NV	0.00209 U	0.00229 U	0.00234 U	0.00234 U	0.00237 U	0.0022 U	0.00303 U	0.0023 U	0.00286 U	0.00258 U
Diisopropyl Ether	NV	0.000531 U	0.000582 U	0.000595 U	0.000596 U	0.000604 U	0.000559 U	0.000771 U	0.000586 U	0.000728 U	0.000658 U
Ethylbenzene	6	0.0172 J	0.00105 U	0.00107 U	0.00107 U	0.0122	0.0185	0.00139 U	0.00105 U	0.00131 U	0.00118 U
Freon 113	NV	0.000977 UJ	0.00107 UJ	0.0011 UJ	0.0011 UJ	0.00111 UJ	0.00103 UJ	0.00142 UJ	0.00108 UJ	0.00134 UJ	0.00121 UJ
Hexachlorobutadiene	NV	0.00778 U	0.00852 U	0.00871 U	0.00872 U	0.00884 U	0.00818 U	0.0113 U	0.00858 U	0.0106 U	0.00963 U
Isopropylbenzene	NV	0.00503 J	0.000603 U	0.000617 U	0.000618 U	0.00324 J	0.00374	0.00301 J	0.000608 U	0.000754 U	0.000682 U
Methyl tert-butyl ether	0.1	0.000454 U	0.000497 U	0.000509 U	0.000509 U	0.000516 U	0.000477 U	0.000659 U	0.0005 U	0.000621 U	0.000562 U
Methylene chloride	0.02	0.0086 U	0.00943 U	0.00964 U	0.00965 U	0.00978 U	0.00906 U	0.0125 U	0.00949 U	0.0118 U	0.0107 U
Naphthalene	5	0.0577	0.00693 U	0.00708 U	0.00709 U	0.0436	0.0536	0.043	0.00698 U	0.00866 U	0.00783 U
n-Butylbenzene	NV	0.00877 J	0.00745 U	0.00762 U	0.00763 U	0.00773 U	0.00716 U	0.00988 U	0.00751 U	0.00932 U	0.00842 U
n-Propylbenzene	NV	0.00566 J	0.00135 U	0.00138 U	0.00138 U	0.00414 J	0.00367 J	0.00395 J	0.00136 U	0.00169 U	0.00152 U
sec-Butylbenzene	NV	0.00373 U	0.00409 U	0.00418 U	0.00419 U	0.00424 U	0.00393 U	0.00542 U	0.00412 U	0.00511 U	0.00462 U
Styrene	NV	0.000297 U	0.000325 U	0.000333 U	0.000333 U	0.000337 U	0.000312 U	0.000431 U	0.000327 U	0.000406 U	0.000367 U
tert-Butylbenzene	NV	0.00253 U	0.00277 U	0.00283 U	0.00283 U	0.00287 U	0.00266 U	0.00367 U	0.00279 U	0.00346 U	0.00313 U
Tetrachloroethene	0.05	0.00116 U	0.00127 U	0.0013 U	0.0013 U	0.00132 U	0.00122 U	0.00168 U	0.00128 U	0.00159 U	0.00144 U
Toluene	7	0.061	0.00192 J	0.00338 J	0.00189 U	0.0687	0.143	0.0762	0.003 J	0.00231 U	0.00209 U
trans-1,2-Dichloroethene	NV	0.00135 U	0.00148 U	0.00152 U	0.00151 U	0.00153 U	0.00142 U	0.00196 U	0.00149 U	0.00185 U	0.00167 U
trans-1,3-Dichloropropene	NV	0.00148 U	0.00162 U	0.00166 U	0.00166 U	0.00168 U	0.00155 U	0.00214 U	0.00163 U	0.00202 U	0.00183 U
Trichloroethene	0.03	0.000757 U	0.000829 U	0.000848 U	0.000849 U	0.00086 U	0.000797 U	0.0011 U	0.000835 U	0.00104 U	0.000937 U
Trichlorofluoromethane (Freon 11)	NV	0.00107 UJ	0.00117 UJ	0.0012 UJ	0.0012 UJ	0.00122 UJ	0.00113 UJ	0.00156 UJ	0.00118 UJ	0.00147 UJ	0.00133 UJ
Vinyl chloride	NV	0.0015 UJ	0.00165 UJ	0.00168 UJ	0.00169 UJ	0.00171 UJ	0.00158 UJ	0.00219 UJ	0.00166 UJ	0.00206 UJ	0.00186 UJ
Xylenes (total)[c]	9	0.112 J	0.00125 U	0.00585 J	0.00128 U	0.0959	0.149	0.105	0.00182 J	0.00156 U	0.00141 U
PAHs (mg/kg)											
1-Methylnaphthalene	NV	0.129	--	0.0268	--	0.217	--	0.138 J	--	0.00616 U	--
2-Chloronaphthalene	NV	0.00532 U	--	0.00536 U	--	0.00569 U	--	0.00602 U	--	0.00639 U	--
2-Methylnaphthalene	NV	0.183	--	0.0284	--	0.276	--	0.195 J	--	0.00586 U	--
Acenaphthene	NV	0.00516 J	--	0.00241 U	--	0.00409 J	--	0.00547 J	--	0.00287 U	--
Acenaphthylene	NV	0.00247 U	--	0.00249 U	--	0.00264 U	--	0.00279 U	--	0.00296 U	--
Anthracene	NV	0.00481 J	--	0.00439 J	--	0.011	--	0.00634 J	--	0.00316 U	--
Benzo(a)anthracene	NV	0.00895	--	0.006 J	--	0.00997	--	0.0131	--	0.00237 U	--
Benzo(a)pyrene	NV	0.00489 J	--	0.00403 J	--	0.00491 J	--	0.00779	--	0.00246 U	--
Benzo(b)fluoranthene	NV	0.00993	--	0.00583 J	--	0.00525 J	--	0.0136	--	0.0021 U	--
Benzo(ghi)perylene	NV	0.00656 J	--	0.00368 J	--	0.00238 J	--	0.00681 J	--	0.00243 U	--
Benzo(k)fluoranthene	NV	0.00246 U	--	0.00248 U	--	0.00262 U	--	0.00293 J	--	0.00295 U	--

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Table 4-1
Summary of Soil Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA A, Soil, Unrestricted Land Use[1]	SB-1	SB-1	SB-2	SB-2	SB-3	SB-3	SB-5	SB-5	SB-7	SB-7
Sample Name:		SB-1-2.5	SB-1-15	SB-2-2.0	SB-2-15.0	SB-3-5.0	SB-3-13.0	SB-5-5.0	SB-5-15.0	SB-7-5.5	SB-7-18.5
Collection Date:		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
Collection Depth (ft bgs):		2.5	15.0	2.0	15.0	5.0	13.0	5.0	15.0	5.5	18.5
Chrysene	NV	0.0117	--	0.00634 J	--	0.0102	--	0.0176	--	0.00318 U	--
Dibenzo(a,h)anthracene	NV	0.00197 U	--	0.00198 U	--	0.0021 U	--	0.00222 U	--	0.00236 U	--
Fluoranthene	NV	0.00979	--	0.011	--	0.00748	--	0.0194	--	0.00311 U	--
Fluorene	NV	0.00932	--	0.00311 J	--	0.00587 J	--	0.0083	--	0.00281 U	--
Indeno(1,2,3-cd)pyrene	NV	0.00296 J	--	0.00374 J	--	0.00221 U	--	0.00655 J	--	0.00248 U	--
Naphthalene	5	0.0772	--	0.0125 J	--	0.144	--	0.105 J	--	0.0056 U	--
Phenanthrene	NV	0.0652	--	0.0195	--	0.063	--	0.0817	--	0.00317 U	--
Pyrene	NV	0.0126	--	0.0107	--	0.0115	--	0.0203	--	0.00274 U	--
Total naphthalenes[d]	5	0.389	--	0.0677 J	--	0.637	--	0.438 J	--	0.00616 U	--
cPAH TEQ[e][2]	0.1	0.00641 J	--	0.0304 J	--	0.03726 J	--	0.06379 J	--	0.00318 U	--
TPH (mg/kg)											
Diesel Range Hydrocarbons	2,000	25.4	1.59 U	7.56	1.6 U	16.1	19.2	24	1.58 U	1.82 U	1.71 U
Residual Range Hydrocarbons	2,000	46	3.99 U	19.1	4.01 U	22.1	45.1	55.2	3.95 U	4.57 U	4.27 U

Table 4-1
Summary of Soil Analytical Results
WSU Steam Plant
Port of Whitman County

NOTES:
Analytical results compared to screening criteria. There were no exceedances. Non-detects ("U" or "UJ") were not compared with screening criteria.
-- = not analyzed.
cPAH TEQ = carcinogenic PAH toxicity equivalence.
Ecology = Washington State Department of Ecology.
ft bgs = feet below ground surface.
J = result is estimated.
mg/kg = milligrams per kilogram.
MTCA = Model Toxics Control Act.
NV = no value.
PAH = polycyclic aromatic hydrocarbon.
PCB = polychlorinated biphenyl.
TEQ = toxicity equivalence.
TPH = total petroleum hydrocarbons.
U = result is non-detect to method detection limit or method reporting limit.
UJ = result is non-detect with an estimated method detection limit or method reporting limit.
VOC = volatile organic compound.
WSU = Washington State University.
[a]Cleanup level is for trivalent chromium, as a value for total chromium is not available.
[b]Total PCBs is the sum of all Aroclors. When all results are non-detect, the highest value is shown.
[c]Total xylenes are reported by the laboratory.
[d]Total naphthalenes is the sum of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. When all results are non-detect, the highest value is shown.
[e]cPAH TEQ calculated with non-detect results multiplied by one-half. When all cPAHs are non-detect, the highest product of toxicity equivalence factor and detection limit is provided.
REFERENCES:
[1]Ecology. 2021. Cleanup Levels and Risk Calculation (CLARC) Table. Washington State Department of Ecology. February.
[2]Ecology. 2015. Washington State Department of Ecology Implementation Memorandum #10 (Evaluating the Human Health Toxicity of Carcinogenic PAHs [cPAHs] Using Toxicity Equivalency Factors [TEFs]). Washington State Department of Ecology. April 20, 2015.

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Table 4-2
Summary of Groundwater Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA A, Groundwater[1]	SB-1	SB-2	SB-3	SB-5	SB-7
Sample Name:		SB-1-GW	SB-2-GW	SB-3-GW	SB-5-GW	SB-7-GW
Collection Date:		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
Collection Depth (ft bgs):		16	17	16	16	21
Total Metals (ug/L)						
Arsenic	5	1.15 J	0.756 J	1.15 J	1.19 J	--
Barium	NV	169	171	92.7	97.1	--
Cadmium	5	0.222 J	0.359 J	0.15 U	0.15 U	--
Chromium	50	3.32 J+	4.32 J+	2.45 J+	7.09 J+	--
Lead	15	11.4	7.66	0.849 U	4.45	--
Mercury	2	0.1 U	0.1 U	0.1 U	0.1 U	--
Selenium	NV	0.3 U	0.3 U	0.792 J	0.583 J	--
Silver	NV	0.115 J	0.07 U	0.07 U	0.0736 J	--
PCB Aroclors (ug/L)						
Aroclor 1016	NV	--	--	--	0.27 U	0.27 U
Aroclor 1221	NV	--	--	--	0.27 U	0.27 U
Aroclor 1232	NV	--	--	--	0.27 U	0.27 U
Aroclor 1242	NV	--	--	--	0.27 U	0.27 U
Aroclor 1248	NV	--	--	--	0.173 U	0.173 U
Aroclor 1254	NV	--	--	--	0.173 U	0.173 U
Aroclor 1260	NV	--	--	--	0.173 U	0.173 U
Total PCBs[a]	0.10	--	--	--	0.27 U	0.27 U
VOCs (ug/L)						
1,1,1,2-Tetrachloroethane	NV	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1,1-Trichloroethane	200	0.011 U	0.011 U	0.011 U	0.011 U	0.011 U
1,1,2,2-Tetrachloroethane	NV	0.0156 U	0.0156 U	0.0156 U	0.0156 U	0.0156 U
1,1,2-Trichloroethane	NV	0.0353 U	0.0353 U	0.0353 U	0.0353 U	0.0353 U
1,1-Dichloroethane	NV	0.023 U	0.023 U	0.023 U	0.023 U	0.023 U
1,1-Dichloroethene	NV	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
1,1-Dichloropropene	NV	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U
1,2,3-Trichlorobenzene	NV	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U
1,2,3-Trichloropropane	NV	0.204 U	0.204 U	0.204 U	0.204 U	0.204 U
1,2,3-Trimethylbenzene	NV	0.046 U	0.046 U	0.046 U	0.046 U	0.046 U
1,2,4-Trichlorobenzene	NV	0.193 U	0.193 U	0.193 U	0.193 U	0.193 U
1,2,4-Trimethylbenzene	NV	0.0464 U	0.0464 U	0.0464 U	0.0464 U	0.0464 U
1,2-Dibromo-3-chloropropane	NV	0.204 UJ	0.204 UJ	0.204 UJ	0.204 UJ	0.204 UJ
1,2-Dibromoethane	0.01	0.021 U	0.021 U	0.021 U	0.021 U	0.021 U
1,2-Dichlorobenzene	NV	0.058 U	0.058 U	0.058 U	0.058 U	0.058 U
1,2-Dichloroethane	5	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
1,2-Dichloropropane	NV	0.0508 U	0.0508 U	0.0508 U	0.0508 U	0.0508 U
1,3,5-Trimethylbenzene	NV	0.0432 U	0.0432 U	0.0432 U	0.0432 U	0.0432 U
1,3-Dichlorobenzene	NV	0.068 U	0.068 U	0.068 U	0.068 U	0.068 U
1,3-Dichloropropane	NV	0.07 U	0.07 U	0.07 U	0.07 U	0.07 U
1,4-Dichlorobenzene	NV	0.0788 U	0.0788 U	0.0788 U	0.0788 U	0.0788 U
2,2-Dichloropropane	NV	0.0317 U	0.0317 U	0.0317 U	0.0317 U	0.0317 U
2-Butanone	NV	0.5 U	0.5 U	0.5 U	0.5 U	1.19
2-Chlorotoluene	NV	0.0368 U	0.0368 U	0.0368 U	0.0368 U	0.0368 U
2-Hexanone	NV	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
4-Chlorotoluene	NV	0.0452 U	0.0452 U	0.0452 U	0.0452 U	0.0452 U
4-Isopropyltoluene	NV	0.0932 U	0.0932 U	0.0932 U	0.0932 U	1.35
4-Methyl-2-pentanone	NV	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
Acetone	NV	3.07 J	2.65 J	1.41 J	2.52 J	20.4 J

Table 4-2
Summary of Groundwater Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA A, Groundwater[1]	SB-1	SB-2	SB-3	SB-5	SB-7
Sample Name:		SB-1-GW	SB-2-GW	SB-3-GW	SB-5-GW	SB-7-GW
Collection Date:		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
Collection Depth (ft bgs):		16	17	16	16	21
Acrylonitrile	NV	0.076 U	0.076 U	0.076 U	0.076 U	0.076 U
Benzene	5	0.016 U	0.098	0.049	0.024 J	0.134
Bromobenzene	NV	0.042 U	0.042 U	0.042 U	0.042 U	0.042 U
Bromodichloromethane	NV	0.0315 U	0.0315 U	0.0315 U	0.0315 U	0.062 J
Bromoform	NV	0.239 U	0.239 U	0.239 U	0.239 U	0.239 U
Bromomethane	NV	0.148 U	0.148 U	0.148 U	0.148 U	0.148 U
Carbon disulfide	NV	0.162 U	0.162 U	0.162 U	0.162 U	0.162 U
Carbon tetrachloride	NV	0.0432 U	0.0432 U	0.0432 U	0.0432 U	0.0432 U
Chlorobenzene	NV	0.0229 U	0.0229 U	0.0229 U	0.0229 U	0.0229 U
Chlorobromomethane	NV	0.0452 U	0.0452 U	0.0452 U	0.0452 U	0.0452 U
Chloroethane	NV	0.0432 U	0.0432 U	0.0432 U	0.0432 U	0.0432 U
Chloroform	NV	0.0166 U	0.0166 U	0.0166 U	0.0166 U	0.205 J
Chloromethane	NV	0.0556 U	0.0556 U	0.0556 U	0.0556 U	0.0556 U
cis-1,2-Dichloroethene	NV	0.0276 U	0.0276 U	0.0276 U	0.0276 U	0.0276 U
cis-1,3-Dichloropropene	NV	0.0271 U	0.0271 U	0.0271 U	0.0271 U	0.0271 U
Dibromochloromethane	NV	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U
Dibromomethane	NV	0.04 U	0.04 U	0.04 U	0.04 U	0.04 U
Dichlorodifluoromethane (Freon 12)	NV	0.0327 U	0.0327 U	0.0327 U	0.0327 U	0.0327 U
Diisopropyl Ether	NV	0.014 U	0.014 U	0.014 U	0.014 U	0.014 U
Ethylbenzene	700	0.0212 U	0.0212 U	0.0212 U	0.0212 U	0.339
Freon 113	NV	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U
Hexachlorobutadiene	NV	0.508 U	0.508 U	0.508 U	0.508 U	0.508 U
Isopropylbenzene	NV	0.0345 U	0.0345 U	0.0345 U	0.0345 U	0.0345 U
Methyl iodide	NV	0.242 U	0.242 U	0.242 U	0.242 U	0.242 U
Methyl tert-butyl ether	20	0.0118 U	0.0118 U	0.0118 U	0.0118 U	0.0118 U
Methylene chloride	5	0.265 U	0.265 U	0.265 U	0.265 U	0.265 U
Naphthalene	160	0.124 UJ	0.124 UJ	0.124 UJ	0.124 UJ	0.124 UJ
n-Butylbenzene	NV	0.153 U	0.153 U	0.153 U	0.153 U	0.153 U
n-Hexane	NV	0.0424 U	0.0424 U	0.0424 U	0.0424 U	0.0424 U
n-Propylbenzene	NV	0.0472 U	0.0472 U	0.0472 U	0.0472 U	0.0472 U
sec-Butylbenzene	NV	0.101 U	0.101 U	0.101 U	0.101 U	0.101 U
Styrene	NV	0.109 U	0.109 U	0.109 U	0.109 U	0.109 U
tert-Butylbenzene	NV	0.062 UJ	0.062 UJ	0.062 UJ	0.062 UJ	0.062 UJ
Tetrachloroethene	5	0.028 U	0.028 U	0.028 U	0.028 U	0.028 U
Toluene	1,000	0.055 J	0.105 J	0.081 J	0.116 J	0.483
trans-1,2-Dichloroethene	NV	0.0572 U	0.0572 U	0.0572 U	0.0572 U	0.0572 U
trans-1,3-Dichloropropene	NV	0.0612 U	0.0612 U	0.0612 U	0.0612 U	0.0612 U
trans-1,4-Dichloro-2-butene	NV	0.056 U	0.056 U	0.056 U	0.056 U	0.056 U
Trichloroethene	5	0.016 U	0.016 U	0.016 U	0.016 U	0.016 U
Trichlorofluoromethane (Freon 11)	NV	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U
Vinyl Acetate	NV	0.141 U	0.141 U	0.141 U	0.141 U	0.141 U
Vinyl chloride	0.2	0.0273 U	0.0273 U	0.0273 U	0.0273 U	0.0273 U
Xylenes (total)[b]	1,000	0.191 U	0.191 U	0.191 U	0.191 U	2
PAHs (ug/L)						
1-Methylnaphthalene	NV	0.0687 U	0.0687 U	0.0687 U	0.0687 U	0.0687 U
2-Chloronaphthalene	NV	0.0682 U	0.0682 U	0.0682 U	0.0682 U	0.0682 U
2-Methylnaphthalene	NV	0.0674 U	0.0674 U	0.0674 U	0.0674 U	0.0674 U
Acenaphthene	NV	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U

Table 4-2
Summary of Groundwater Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA A, Groundwater[1]	SB-1	SB-2	SB-3	SB-5	SB-7
Sample Name:		SB-1-GW	SB-2-GW	SB-3-GW	SB-5-GW	SB-7-GW
Collection Date:		10/19/2021	10/19/2021	10/19/2021	10/19/2021	10/19/2021
Collection Depth (ft bgs):		16	17	16	16	21
Acenaphthylene	NV	0.0171 U	0.0171 U	0.0171 U	0.0171 U	0.0171 U
Anthracene	NV	0.019 U	0.019 U	0.019 U	0.019 U	0.019 U
Benzo(a)anthracene	NV	0.0203 U	0.0203 U	0.0203 U	0.0203 U	0.0203 U
Benzo(a)pyrene	NV	0.0184 U	0.0184 U	0.0184 U	0.0184 U	0.0184 U
Benzo(b)fluoranthene	NV	0.0168 U	0.0168 U	0.0168 U	0.0168 U	0.0168 U
Benzo(ghi)perylene	NV	0.0184 U	0.0184 U	0.0184 U	0.0184 U	0.0184 U
Benzo(k)fluoranthene	NV	0.0202 U	0.0202 U	0.0202 U	0.0202 U	0.0202 U
Chrysene	NV	0.0179 U	0.0179 U	0.0179 U	0.0179 U	0.0179 U
Dibenzo(a,h)anthracene	NV	0.016 U	0.016 U	0.016 U	0.016 U	0.016 U
Fluoranthene	NV	0.027 U	0.027 U	0.027 U	0.027 U	0.027 U
Fluorene	NV	0.0169 U	0.0169 U	0.0169 U	0.0169 U	0.0169 U
Indeno(1,2,3-cd)pyrene	NV	0.0158 U	0.0158 U	0.0158 U	0.0158 U	0.0158 U
Naphthalene	160	0.0917 U	0.0917 U	0.0917 U	0.0917 U	0.0917 U
Phenanthrene	NV	0.018 U	0.018 U	0.018 U	0.018 U	0.018 U
Pyrene	NV	0.0169 U	0.0169 U	0.0169 U	0.0169 U	0.0169 U
Total naphthalenes[c]	160	0.0917 U	0.0917 U	0.0917 U	0.0917 U	0.0917 U
cPAH TEQ[d][2]	0.1	0.00318 U	0.00318 U	0.00318 U	0.00318 U	0.00318 U
TPH (ug/L)						
Diesel Range Hydrocarbons	500	66.7 UJ	66.7 U	66.7 U	155 J	512
Residual Range Hydrocarbons	500	83.3 UJ	83.3 U	83.3 U	287	164 J

Table 4-2
Summary of Groundwater Analytical Results
WSU Steam Plant
Port of Whitman County

NOTES:
Shading (color key below) indicates values that exceed screening criteria; non-detects ("U" or "UJ") were not compared with screening criteria.
MTCA A, Groundwater
-- = not analyzed.
cPAH TEQ = carcinogenic PAH toxicity equivalence.
Ecology = Washington State Department of Ecology.
ft bgs = feet below ground surface.
J = result is estimated.
J+ = result is estimated with a potential high bias.
MTCA = Model Toxics Control Act.
NV = no value.
PAH = polycyclic aromatic hydrocarbon.
PCB = polychlorinated biphenyl.
TEQ = toxicity equivalence.
TPH = total petroleum hydrocarbons.
U = result is non-detect to method detection limit or method reporting limit.
ug/L = micrograms per liter.
UJ = result is non-detect with an estimated method detection limit or method reporting limit.
VOC = volatile organic compound.
WSU = Washington State University.
[a]Total PCBs is the sum of all Aroclors. When all results are non-detect, the highest value is shown.
[b]Total xylenes are reported by the laboratory.
[c]Total naphthalenes is the sum of 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene. When all results are non-detect the highest value is shown.
[d]cPAH TEQ calculated with non-detect results multiplied by one-half. When all cPAHs are non-detect, the highest product of toxicity equivalence factor and detection limit is provided.
REFERENCES:
[1]Ecology. 2021. Cleanup Levels and Risk Calculation (CLARC) Table. Washington State Department of Ecology. February.
[2]Ecology. 2015. Washington State Department of Ecology Implementation Memorandum #10 (Evaluating the Human Health Toxicity of Carcinogenic PAHs [cPAHs] Using Toxicity Equivalency Factors [TEFs]). Washington State Department of Ecology. April 20, 2015.

Table 4-3
Summary of Soil Vapor Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA Method B, Indoor Air CUL[a][1]	VP-1	VP-2	VP-3
Sample Name:		VP-1	VP-2	VP-3
Collection Date:		11/12/2021	11/12/2021	11/12/2021
VOCs (ug/m^3)				
1,1,1-Trichloroethane	2,300	1.09 U	1.09 U	1.09 U
1,1,2,2-Tetrachloroethane	0.043	1.37 U	1.37 U	1.37 U
1,1,2-Trichloroethane	0.091	1.09 U	1.09 U	1.09 U
1,1-Dichloroethane	1.6	0.802 U	0.802 U	0.802 U
1,1-Dichloroethene	91	0.793 U	0.793 U	0.793 U
1,2,4-Trichlorobenzene	0.91	4.66 U	4.66 U	4.66 U
1,2,4-Trimethylbenzene	27	0.982 U	1.23	1.75
1,2-Dibromoethane	0.0042	1.54 U	1.54 U	1.54 U
1,2-Dichlorobenzene	91	1.2 U	1.2 U	1.2 U
1,2-Dichloroethane	0.096	0.81 U	0.81 U	0.81 U
1,2-Dichloropropane	0.68	0.924 U	0.924 U	0.924 U
1,3,5-Trimethylbenzene	27	0.982 U	0.982 U	0.982 U
1,3-Butadiene	0.083	4.43 U	4.43 U	4.43 U
1,3-Dichlorobenzene	NV	1.2 U	1.2 U	1.2 U
1,4-Dichlorobenzene	0.23	1.2 U	1.2 U	1.2 U
1,4-Dioxane	0.5	0.84	0.721 U	0.721 U
2,2,4-Trimethylpentane	NV	0.934 U	0.934 U	0.934 U
2-Butanone	2,300	4.04	3.69 U	5.75
2-Chlorotoluene	NV	1.03 U	1.03 U	1.03 U
2-Hexanone	14	5.11 U	5.11 U	5.11 U
2-Propanol	91	5.31	3.07 U	7.03
4-Ethyltoluene	NV	0.982 U	0.982 U	1.24
4-Methyl-2-pentanone	1,400	5.12 U	5.12 U	5.12 U
Acetone	14,000	30.2	16.1	28.8
Allyl Chloride	0.42	0.626 U	0.626 U	0.626 U
Benzene	0.32	7.12	0.639 U	0.747
Benzyl Chloride	0.051	1.04 U	1.04 U	1.04 U
Bromodichloromethane	0.068	1.34 U	1.34 U	1.34 U
Bromoform	2.3	6.21 U	6.21 U	6.21 U
Bromomethane	2.3	0.776 U	0.776 U	0.776 U
Carbon disulfide	320	0.622 U	0.622 U	2.98
Carbon tetrachloride	0.42	1.26 U	1.26 U	1.26 U
Chlorobenzene	23	0.924 U	0.924 U	0.924 U
Chloroethane	4,600	0.528 U	0.528 U	0.528 U
Chloroform	0.11	0.973 U	0.973 U	0.973 U
Chloromethane	41	0.456	0.413 U	0.413 U

Table 4-3
Summary of Soil Vapor Analytical Results
WSU Steam Plant
Port of Whitman County

Location:	MTCA Method B, Indoor Air CUL[a][1]	VP-1	VP-2	VP-3
Sample Name:		VP-1	VP-2	VP-3
Collection Date:		11/12/2021	11/12/2021	11/12/2021
cis-1,2-Dichloroethene	NV	0.793 U	0.793 U	0.793 U
cis-1,3-Dichloropropene	NV	0.908 U	0.908 U	0.908 U
Cyclohexane	2,700	0.73	0.689 U	0.689 U
Dibromochloromethane	NV	1.7 U	1.7 U	1.7 U
Dichlorodifluoromethane (Freon 12)	46	2.3	2.4	2.44
Ethanol	NV	107	71.6	58.8
Ethylbenzene	460	1.75	1.55	2.24
Freon 113	2,300	1.53 U	1.53 U	1.53 U
Freon 114	NV	1.4 U	4.23	1.4 U
Heptane	180	0.818 U	34.2	1.61
Hexachlorobutadiene	0.11	6.73 U	6.73 U	6.73 U
Isopropylbenzene	180	0.983 U	0.983 U	0.983 U
m,p-Xylene	NV	8.8	5.51	8.11
Methyl methacrylate	320	0.819 U	0.819 U	0.819 U
Methyl tert-butyl ether	9.6	0.721 U	0.721 U	0.721 U
Methylene chloride	66	6.46	0.694 U	0.694 U
Naphthalene	0.074	3.3 U	3.3 U	3.3 U
n-Hexane	320	3.17	52.5	2.96
o-Xylene	46	3.13	1.76	2.81
Propylene	NV	2.15 U	2.15 U	2.15 U
Styrene	460	0.851 U	1.48	2.08
Tetrachloroethene	9.6	1.36 U	1.36 U	1.36 U
Tetrahydrofuran	910	0.59 U	0.59 U	0.59 U
Toluene	2,300	15.2	15.2	14.3
trans-1,2-Dichloroethene	18	0.793 U	0.793 U	0.793 U
trans-1,3-Dichloropropene	NV	0.908 U	0.908 U	0.908 U
Trichloroethene	0.33	1.07 U	1.07 U	1.59
Trichlorofluoromethane (Freon 11)	320	1.16	13.4	1.12 U
Vinyl acetate	91	0.704 U	0.704 U	0.704 U
Vinyl bromide	0.17	0.875 U	0.875 U	0.875 U
Vinyl chloride	0.28	0.511 U	0.511 U	0.511 U
Xylenes, total[b]	46	11.9	7.27	10.9

Table 4-3
Summary of Soil Vapor Analytical Results
WSU Steam Plant
Port of Whitman County

NOTES:
Shading (color key below) indicates values that exceed screening criteria; non-detects ("U") were not compared with screening criteria.
MTCA Method B, Indoor Air CUL
CUL = cleanup level.
Ecology = Washington State Department of Ecology.
MTCA = Model Toxics Control Act.
NV = no value.
U = result is non-detect to method reporting limit.
ug/m^3 = micrograms per cubic meter.
VOC = volatile organic compound.
WSU = Washington State University.
[a]Cleanup level is the lower of available cancer or non-cancer values.
[b]Total xylenes is the sum of m,p-xylene and o-xylene.
REFERENCE:
[1]Ecology. 2021. Cleanup Levels and Risk Calculation (CLARC) Table. Washington State Department of Ecology. February.

Table 8-1
Alternative 1 - Gravel Capping, Vapor Sealing, and Monitored Natural Attenuation
Cost Estimate Summary
Port of Whitman County
Pullman, Washington

Project:	WSU Steam Plant Focused Site Assessment	
Client:	Port of Whitman County	
Project #/Task:	M0457.02.003	Initial
Prepared By:	E. Lundeen	EL
Checked By:	T. Wall	TW
Date:	1/27/2022	
Revision #:	0	

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Cost Estimate Summary—Feasibility Level

Schedule A—Site Preparation		$	13,300
Schedule B—Monitoring Well Installation		$	6,300
Schedule C—Basement Sealing		$	15,375
Schedule D—Gravel Cap Installation		$	66,000
Schedule E—Permitting and Technical Services		$	60,000
Schedule F—Design and Project Management		$	56,300
Schedule G—Monitoring and Periodic Costs		$	222,500
Schedule H—Contingency		$	72,000
	Total:	**$**	**512,000**

Assumptions:

1. Three monitoring wells will be installed on the Property.
2. Groundwater will naturally attenuate to below cleanup levels after five years. Groundwater will be monitored on a quarterly basis for five years, or until groundwater meets cleanup levels. A final year of quarterly monitoring is assumed to demonstrate achievement of cleanup levels.
3. All samples used for remedy design are reconnaissance groundwater and not permanent wells. Data may not be representative of subsurface conditions.
4. Cap will consist of a one-foot-thick layer of gravel over approximately 3,900 square yards outside of the building. Additional materials will be required for repairs every five years.
5. A contaminated media management plan and environmental covenant will be prepared for the Property.
6. Cracks in the basement will be sealed with a vapor resistant sealant and a passive vent will be installed to vent vapors from the sub-basement.
7. Net present value of monitoring and periodic costs was calculated using the ten-year nominal interest rate published by the U.S. Federal Reserve on January 6, 2022.
8. There will be 30 years of post-closure monitoring and maintenance.
9. A 30 percent contingency is included for short-term costs and a 10 percent contingency is included for long-term monitoring and maintenance. Contingency accounts for site and design uncertainty.
10. Probable cost is a decision tool and should be considered to represent a range reflecting -30%/+50%.

Table 8-1
Alternative 1 - Gravel Capping, Vapor Sealing, and Monitored Natural Attenuation Probable Costs
Port of Whitman County
Pullman, Washington

Schedule 'A' - Site Preparation					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
A.1	Predesign basement inspection	1	LS	$ 1,800.00	$ 1,800.00
A.2	Mobilization/demobilization	10%	LS	$ -	$ 8,500.00
A.3	Erosion and sediment control	1	LS	$ 1,000.00	$ 1,000.00
A.4	Preliminary site grading	1	LS	$ 2,000.00	$ 2,000.00
				Subtotal Schedule 'A':	**$ 13,300**

Schedule 'B' - Monitoring Well Installation					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
B.1	Mobilization/drilling rig	1	LS	$ 1,800.00	$ 1,800.00
B.2	Install monitoring well	3	EA	$ 1,500.00	$ 4,500.00
				Subtotal Schedule 'B':	**$ 6,300**

Schedule 'C' - Vapor Sealing					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
C.1	Sealant product	25	EA	$ 25.00	$ 625.00
C.2	Application of sealant	1	LS	$ 2,500.00	$ 2,500.00
C.3	Install gas-tight door	1	LS	$ 1,000.00	$ 1,000.00
C.4	Gas-tight door to sub-basement	1	EA	$ 5,000.00	$ 5,000.00
C.5	Install passive vent from sub-basement	1	LS	$ 4,500.00	$ 4,500.00
C.6	4" PVC solid pipe (vertical)	50	LF	$ 15.00	$ 750.00
C.7	Pipe penetration boot	2	EA	$ 500.00	$ 1,000.00
				Subtotal Schedule 'C':	**$ 15,375**

Schedule 'D' - Gravel Cap Installation					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
D.1	Demarcation fabric and placement	4,000	SY	$ 2.50	$ 10,000.00
D.2	12 inch gravel cap material, import, and placement	4,000	SY	$ 14.00	$ 56,000.00
				Subtotal Schedule 'D':	**$ 66,000**

Schedule 'E' - Permitting and Technical Services					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
E.1	Pre-design material, process, and systems confirmation	1	LS	$ 15,000.00	$ 15,000.00
E.2	Preparation of sampling plan	1	LS	$ 15,000.00	$ 15,000.00
E.3	Praparation of contaminated media management plan and environmnental covenant	1	LS	$ 20,000.00	$ 20,000.00
E.4	Completion reporting	1	LS	$ 5,000.00	$ 5,000.00
E.5	Planning documents	1	LS	$ 5,000.00	$ 5,000.00
				Subtotal Schedule 'E':	**$ 60,000**

Schedule 'F' - Design and Project Management					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
F.1	Project management	10%	LS	-	$ 16,100.00
F.2	Remedial design	15%	LS	-	$ 24,100.00
F.3	Construction management	10%	LS	-	$ 16,100.00
				Subtotal Schedule 'F':	**$ 56,300**

Table 8-1
Alternative 1 - Gravel Capping, Vapor Sealing, and Monitored Natural Attenuation Probable Costs
Port of Whitman County
Pullman, Washington

Schedule 'G' - Monitoring and Periodic Costs							
	10 Year Discount Rate	**1.73%**					
	Total Years	**10**					
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*	
G.1	Annual cap and basement slab inspection (years 1-30)	1	LS	$	69,800.00	$	69,800.00
G.2	Cap repairs (years 5, 10, 15, 20, 25 and 30)	1	LS	$	89,000.00	$	89,000.00
G.3	Sealant repairs (years 10, 20 and 30)	1	LS	$	2,100.00	$	2,100.00
G.4	Semiannual groundwater monitoring (years 1-4)	1	LS	$	41,600.00	$	41,600.00
G.5	Quarterly groundwater monitoring (year 5)	1	LS	$	20,000.00	$	20,000.00
					Subtotal Schedule 'G':	**$**	**222,500**

Schedule 'H' - Contingency						
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*
H.1	Contingency (30% for Schedules A-F, 10% for Schedule G)	30%	LS	-	$	72,000
				Subtotal Schedule 'H':	**$**	**72,000**

Table 8-2
Alternative 2 - Asphalt Capping, Vapor Sealing, and Monitored Natural Attenuation
Cost Estimate Summary
Port of Whitman County
Pullman, Washington

Project:	WSU Steam Plant Focused Site Assessment	
Client:	Port of Whitman County	
Project #/Task:	M0457.02.003	Initial
Prepared By:	E. Lundeen	EL
Checked By:	T. Wall	TW
Date:	1/27/2022	
Revision #:	0	

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Cost Estimate Summary—Feasibility Level

Schedule A—Site Preparation	$	19,100
Schedule B— Monitoring Well Installation	$	6,300
Schedule C—Vapor Sealing	$	15,375
Schedule D—Asphalt Cap Installation	$	139,800
Schedule E—Permitting and Technical Services	$	60,000
Schedule F—Design and Project Management	$	76,000
Schedule G—Monitoring and Periodic Costs	$	163,600
Schedule H—Contingency	$	107,000
Total:	**$**	**587,000**

Assumptions:

1. Three monitoring wells will be installed on the Property.
2. Groundwater will naturally attenuate to below cleanup levels after five years. Groundwater will be monitored on a quarterly basis for five years, or until groundwater meets cleanup levels. A final year of quarterly monitoring is assumed to demonstrate achievement of cleanup levels.
3. All samples used for remedy design are reconnaissance groundwater and not permanent wells. Data may not be representative of subsurface conditions.
4. Cap will consist of an eight-inch-thick layer of aggregate subbase and a four-inch-thick layer of asphalt over approximately 3,900 square yards outside of the building. Cap repairs will be required every ten years.
5. A contaminated media management plan and environmental covenant will be prepared for the Property.
6. Cracks in the basement will be sealed with a vapor resistant sealant and a passive vent will be installed to vent vapors from the sub-basement.
7. Net present value of monitoring and periodic costs was calculated using the ten-year nominal interest rate published by the U.S. Federal Reserve on January 6, 2022.
8. There will be 30 years of post-closure monitoring and maintenance.
9. A 30 percent contingency is included for short-term costs and a 10 percent contingency is included for long-term monitoring and maintenance. Contingency accounts for site and design uncertainty.
10. Probable cost is a decision tool and should be considered to represent a range reflecting -30%/+50%.

Table 8-2
Alternative 2 - Asphalt Capping, Vapor Sealing, and Monitored Natural Attenuation Probable Costs
Port of Whitman County
Pullman, Washington

Schedule 'A' - Site Preparation					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
A.1	Predesign basement inspection	1	LS	$ 1,800.00	$ 1,800.00
A.2	Mobilization/demobilization	10%	LS	$ -	$ 14,300.00
A.3	Erosion and sediment control	1	LS	$ 1,000.00	$ 1,000.00
A.4	Preliminary site grading	1	LS	$ 2,000.00	$ 2,000.00
				Subtotal Schedule 'A':	**$ 19,100**

Schedule 'B' - Monitoring Well Installation					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
B.1	Mobilization/drilling rig	1	LS	$ 1,800.00	$ 1,800.00
B.2	Install monitoring well	3	EA	$ 1,500.00	$ 4,500.00
				Subtotal Schedule 'B':	**$ 6,300**

Schedule 'C' - Vapor Sealing					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
C.1	Sealant product	25	EA	$ 25.00	$ 625.00
C.2	Application of sealant	1	LS	$ 2,500.00	$ 2,500.00
C.3	Install gas-tight door	1	LS	$ 1,000.00	$ 1,000.00
C.4	Gas-tight door to sub-basement	1	EA	$ 5,000.00	$ 5,000.00
C.5	Install passive vent from sub-basement	1	LS	$ 4,500.00	$ 4,500.00
C.6	4" PVC solid pipe (vertical)	50	LF	$ 15.00	$ 750.00
C.7	Pipe penetration boot	2	EA	$ 500.00	$ 1,000.00
				Subtotal Schedule 'C':	**$ 15,375**

Schedule 'D' - Asphalt Cap Installation					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
D.1	Demarcation fabric and placement	4,000	SY	$ 1.09	$ 4,360.00
D.2	8 inch aggregate base	4,000	SY	$ 15.10	$ 60,400.00
D.3	4 inch asphalt cap material and labor	4,000	SY	$ 18.76	$ 75,040.00
				Subtotal Schedule 'C':	**$ 139,800**

Schedule 'E' - Permitting and Technical Services					
Description		*Quantity*	*Unit*	*Unit Cost*	*Total Cost*
E.1	Pre-design material, process, and systems confirmation	1	LS	$ 15,000.00	$ 15,000.00
E.2	Preparation of sampling plan	1	LS	$ 15,000.00	$ 15,000.00
E.3	Praparation of contaminated media management plan and environmnental covenant	1	LS	$ 20,000.00	$ 20,000.00
E.4	Completion reporting	1	LS	$ 5,000.00	$ 5,000.00
E.5	Planning documents	1	LS	$ 5,000.00	$ 5,000.00
				Subtotal Schedule 'D':	**$ 60,000**

Table 8-2
Alternative 2 - Asphalt Capping, Vapor Sealing, and Monitored Natural Attenuation Probable Costs
Port of Whitman County
Pullman, Washington

Schedule 'F' - Design and Project Management						
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*
F.1	Project management	8%	LS	-	$	19,000.00
F.2	Remedial design	15%	LS	-	$	34,000.00
F.3	Construction management	10%	LS	-	$	23,000.00
				Subtotal Schedule 'F':	**$**	**76,000**

Schedule 'G' - Monitoring and Periodic Costs						
	10 Year Discount Rate	**1.73%**				
	Total Years	**10**				
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*
G.1	Annual cap and basement slab inspection (years 1-30)	1	LS	$ 69,800.00	$	69,800.00
G.2	Cap repairs (years 10, 20, and 30)	1	LS	$ 30,100.00	$	30,100.00
G.3	Sealant repairs (years 10, 20 and 30)	1	LS	$ 2,100.00	$	2,100.00
G.4	Semiannual groundwater monitoring (years 1-4)	1	LS	$ 41,600.00	$	41,600.00
G.5	Quarterly groundwater monitoring (year 5)	1	LS	$ 20,000.00	$	20,000.00
				Subtotal Schedule 'G':	**$**	**163,600**

Schedule 'H' - Contingency						
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*
H.1	Contingency (30% for Schedules A-F, 10% for Schedule G)	30%	LS	-	$	107,000.00
				Subtotal Schedule 'H':	**$**	**107,000**

Table 8-3
Alternative 3 - Excavation and Disposal, Vapor Sealing, and Monitored Natural Attenuation
Cost Estimate Summary
Port of Whitman County
Pullman, Washington

Project:	WSU Steam Plant Focused Site Assessment	
Client:	Port of Whitman County	
Project #/Task:	M0457.02.003	Initial
Prepared By:	E. Lundeen	EL
Checked By:	T. Wall	TW
Date:	1/27/2022	
Revision #:	0	

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208.664.7880 (p)
www.maulfoster.com

Cost Estimate Summary—Feasibility Level

Schedule A—Site Preparation		$	45,000
Schedule B—Monitoring Well Installation		$	6,300
Schedule C—Vapor Sealing		$	15,375
Schedule D—Excavation and Disposal		$	310,050
Schedule E—Permitting and Technical Services		$	60,000
Schedule F—Design and Project Management		$	129,500
Schedule G—Monitoring and Periodic Costs		$	98,600
Schedule H—Contingency		$	180,000
	Total:	**$**	**845,000**

Assumptions:

1. Three monitoring wells will be installed on the Property.
2. Groundwater will naturally attenuate to below cleanup levels after five years. Groundwater will be monitored on a quarterly basis for five years, or until groundwater meets cleanup levels. A final year of quarterly monitoring is assumed to demonstrate achievement of cleanup levels.
3. All samples used for remedy design are reconnaissance groundwater and not permanent wells. Data may not be representative of subsurface conditions.
4. Coal material will be excavated from the Property. An additional pre-design investigation is required to delineate the extents of coal impacts.
5. A contaminated media management plan and environmental covenant will be prepared for the Property.
6. Cracks in the basement will be sealed with a vapor resistant sealant and a passive vent will be installed to vent vapors from the sub-basement.
7. Net present value of monitoring and periodic costs was calculated using the ten-year nominal interest rate published by the U.S. Federal Reserve on January 6, 2022.
8. There will be 30 years of post-closure monitoring and maintenance.
9. A 30 percent contingency is included for short-term costs and a 10 percent contingency is included for long-term monitoring and maintenance. Contingency accounts for site and design uncertainty.
10. Probable cost is a decision tool and should be considered to represent a range reflecting -30%/+50%.

Table 8-3
Alternative 3 - Excavation and Disposal, Vapor Sealing, and Monitored Natural Attenuation
Probable Costs
Port of Whitman County
Pullman, Washington

Schedule 'A' - Site Preparation							
Description		*Whitman C*	*Unit*		*Unit Cost*		*Total Cost*
A.1	Predesign basement inspection	1	LS	$	1,800.00	$	1,800.00
A.2	Predesign subsurface investigation	1	LS	$	25,000.00	$	25,000.00
A.3	Mobilization/demobilization	10%	LS	$	-	$	17,200.00
A.4	Erosion and sediment control	1	LS	$	1,000.00	$	1,000.00
					Subtotal Schedule 'A':	**$**	**45,000**

Schedule 'B' - Monitoring Well Installation							
Description		*Quantity*	*Unit*		*Unit Cost*		*Total Cost*
B.1	Mobilization/drilling rig	1	LS	$	1,800.00	$	1,800.00
B.2	Install monitoring well	3	LS	$	1,500.00	$	4,500.00
					Subtotal Schedule 'B':	**$**	**6,300**

Schedule 'C' - Vapor Sealing							
Description		*Quantity*	*Unit*		*Unit Cost*		*Total Cost*
C.1	Sealant product	25	EA	$	25.00	$	625.00
C.2	Application of sealant	1	LS	$	2,500.00	$	2,500.00
C.3	Install gas-tight door	1	LS	$	1,000.00	$	1,000.00
C.4	Gas-tight door to sub-basement	1	EA	$	5,000.00	$	5,000.00
C.5	Install passive vent from sub-basement	1	LS	$	4,500.00	$	4,500.00
C.6	4" PVC solid pipe (vertical)	50	LF	$	15.00	$	750.00
C.7	Pipe penetration boot	2	EA	$	500.00	$	1,000.00
					Subtotal Schedule 'C':	**$**	**15,375**

Schedule 'D' - Excavation and Disposal							
Description		*Quantity*	*Unit*		*Unit Cost*		*Total Cost*
D.1	Excavation and contaminated material management	1,500	BCY	$	30.00	$	45,000.00
D.2	Waste characterization	1	LS	$	1,250.00	$	1,250.00
D.3	Offsite waste transportation and disposal	2,250	TON	$	75.00	$	168,800.00
D.4	Backfill material	1,725	LCY	$	25.00	$	43,200.00
D.5	Backfill and compaction labor	1,725	LCY	$	30.00	$	51,800.00
					Subtotal Schedule 'B':	**$**	**310,050**

Table 8-3
Alternative 3 - Excavation and Disposal, Vapor Sealing, and Monitored Natural Attenuation
Probable Costs
Port of Whitman County
Pullman, Washington

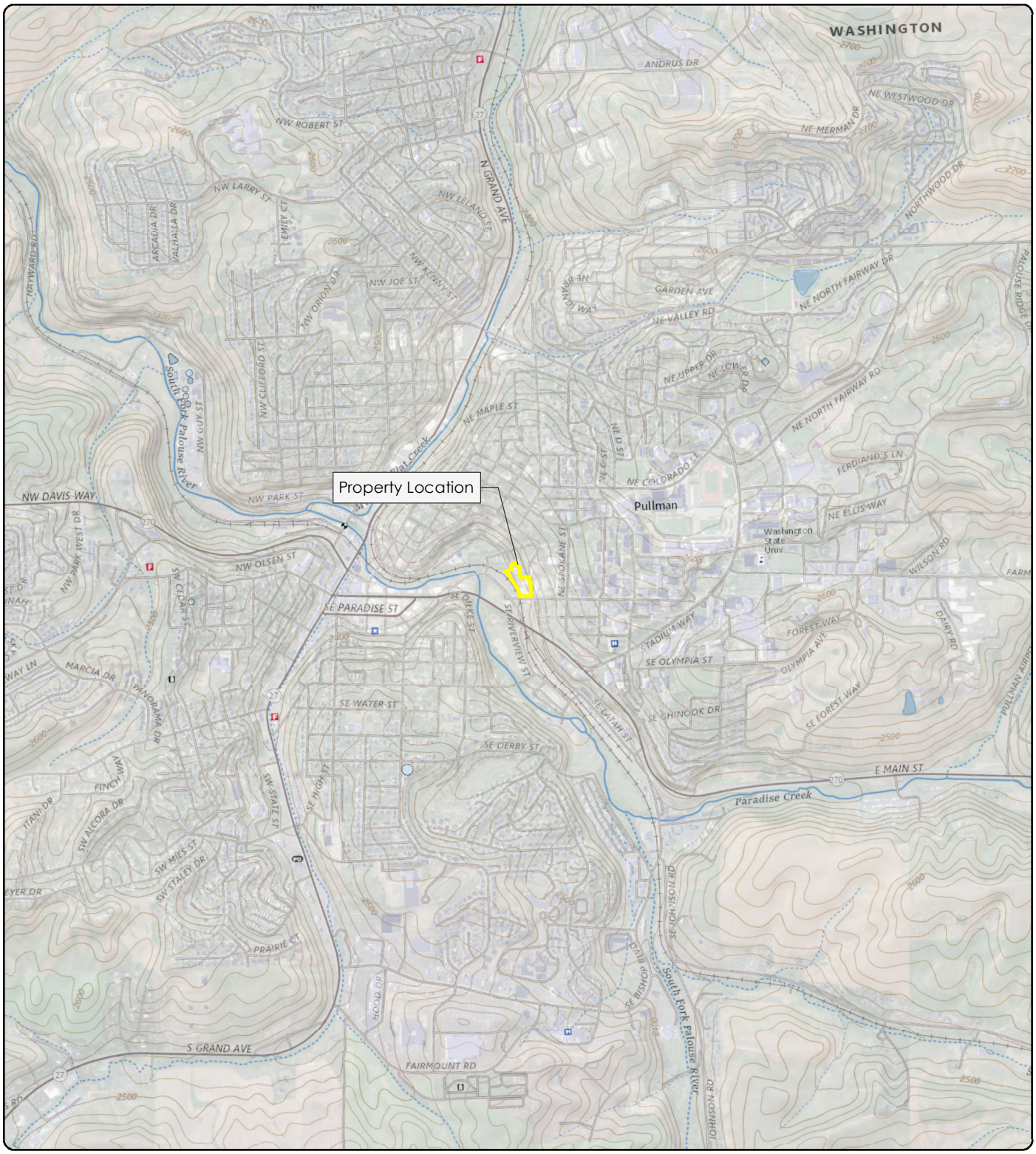
Schedule 'E' - Permitting and Technical Services							
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*	
E.1	Pre-design material, process, and systems confirmation	1	LS	$	15,000.00	$	15,000.00
E.2	Preparation of sampling plan	1	LS	$	15,000.00	$	15,000.00
E.3	Praparation of contaminated media management plan and environmnental covenant	1	LS	$	20,000.00	$	20,000.00
E.4	Completion reporting	1	LS	$	5,000.00	$	5,000.00
E.5	Planning documents	1	LS	$	5,000.00	$	5,000.00
				Subtotal Schedule 'E':		**$**	**60,000**

Schedule 'F' - Design and Project Management							
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*	
F.1	Project management	10%	LS	-		$	37,000.00
F.2	Remedial design	15%	LS	-		$	55,500.00
F.3	Construction management	10%	LS	-		$	37,000.00
				Subtotal Schedule 'F':		**$**	**129,500**

Schedule 'G' - Monitoring and Periodic Costs							
	10 Year Discount Rate	**1.73%**					
	Total Years	**10**					
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*	
G.1	Annual basement slab inspection (years 1-30)	1	LS	$	34,900.00	$	34,900.00
G.2	Sealant repairs (years 10, 20 and 30)	1	LS	$	2,100.00	$	2,100.00
G.3	Semiannual groundwater monitoring (years 1-4)	1	LS	$	41,600.00	$	41,600.00
G.4	Quarterly groundwater monitoring (year 5)	1	LS	$	20,000.00	$	20,000.00
				Subtotal Schedule 'G':		**$**	**98,600**

Schedule 'H' - Contingency							
Description		*Quantity*	*Unit*	*Unit Cost*		*Total Cost*	
H.1	Contingency (30% for Schedules A-F, 10% for Schedule G)	30%	LS	-		$	180,000.00
				Subtotal Schedule 'H':		**$**	**180,000**

FIGURES



Source:
U.S. Geological Survey (2021) 7.5-minute topographic quadrangle: Pullman.
Township 14 North, Range 45 East, Section 5.

Legend

Property Boundary

Figure 1-1
Property Location

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

0 1,000 2,000
Feet

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Path: X:\0457_02\Projects\Fig1_1_Property_Location.mxd
Print Date: 2/11/2022
Reviewed By:
Produced By: jelstrott
Project: M0457.02

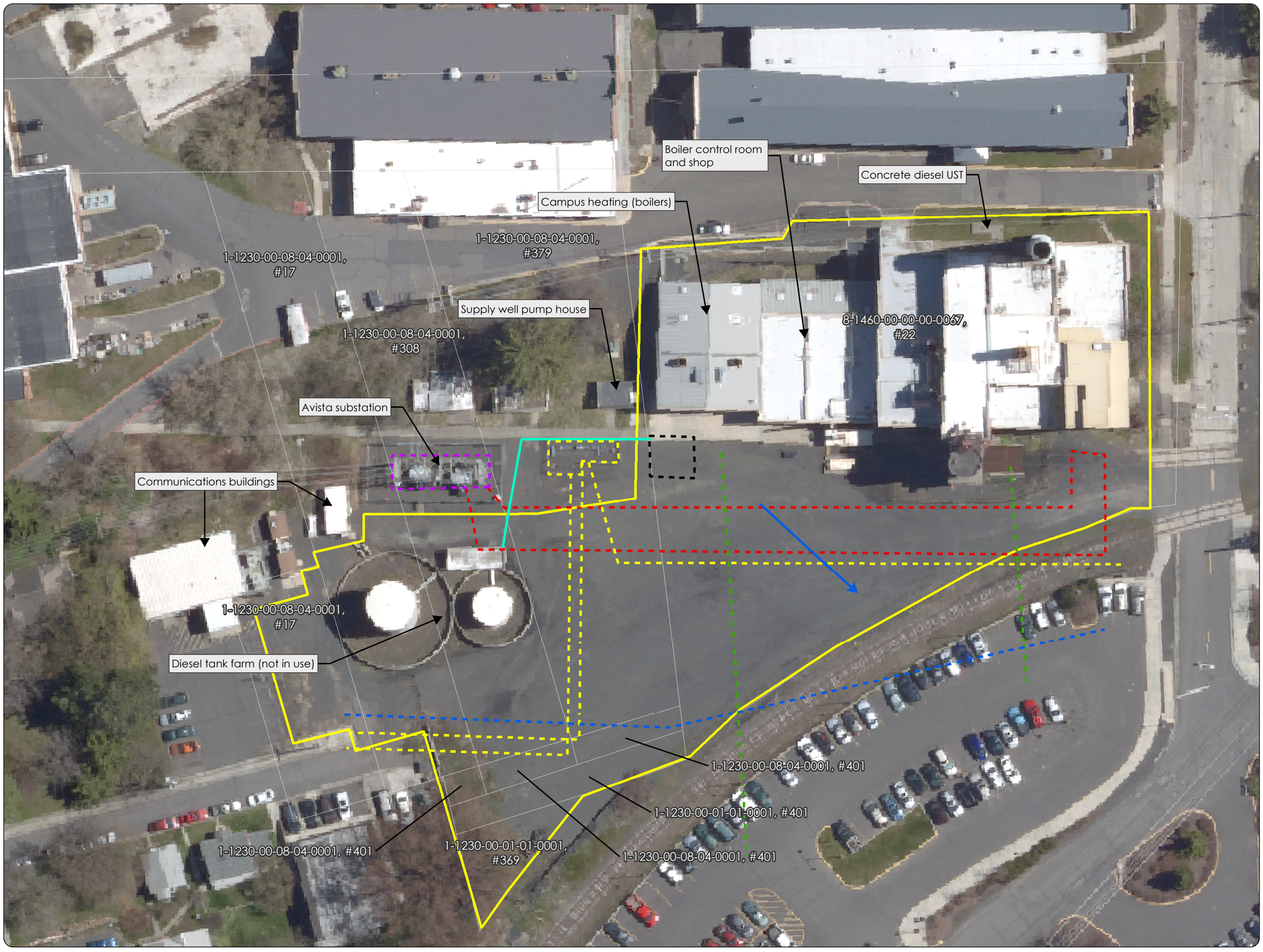

Figure 1-2
Property Features

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Inferred Grounwater Flow Direction

Utility lines (approximate)

- Diesel tank
- Electrical duct
- Gas line
- Sewer line
- Transformer
- Water line
- Subsurface diesel piping (approximate)
- Property boundary
- Parcels

NOTES:
UST = Underground storage tank.

0 25 50
Feet

Source:
Aerial photograph obtained from City of Pullman.

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Path: X:\0457.02\Projects\Fig1_2_Site Features.mxd
Print Date: 2/11/2022
Reviewed By:
Produced By: agsue
Project: M0457.02

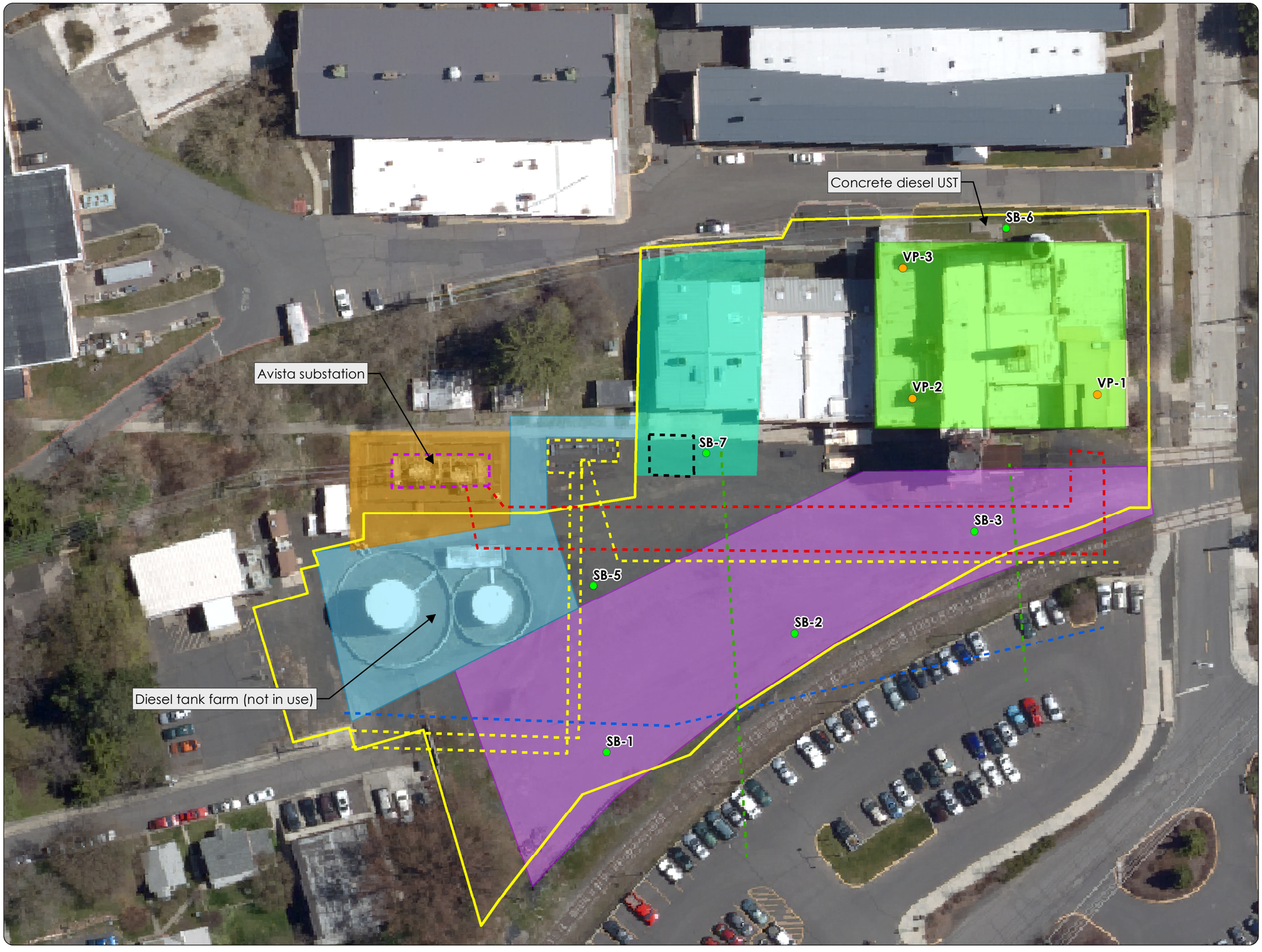

Figure 1-3
Sample Locations

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Boring locations
- Sub-slab soil vapor sample locations

Utility Lines (Approximate)

- Diesel tank
- Electrical duct
- Gas line
- Sewer line
- Transformer
- Water line

- AOC 1: Steam plant operations area/area proposed for reuse
- AOC 2: Coal storage and transport area
- AOC 3: Former diesel tank farm and associated piping
- AOC 4: Avista substation
- AOC 5 : Historical oil storage area
- Property boundary

NOTES:
Boring location SB-4 was not completed due to the presence of subsurface utilities.
AOC = Area of concern.
UST = Underground storage tank.

0 25 50
Feet

Source:
Aerial photograph obtained from City of Pullman.

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Path: X:\0457_02\Projects\Fig2_1_Sample_Locations.mxd
Print Date: 2/11/2022
Reviewed By: lpritzl
Produced By: jelstrott
Project: M0457.02

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Table 5-1
Conceptual Site Model of Potential Exposure Pathways
College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Primary Sources	Primary Release Mechanism	Secondary Sources	Secondary Release Mechanism	Tertiary Source	Point of Potential Contact	Exposure Route	Current and Potential Future Receptors: Construction Workers	Occupational Workers/ Residents	Ecological Receptors	Recreational Fishers
Historical Releases to On-Site Shallow Soil					Soil	Ingestion Dermal Contact Inhalation	I	I	I	I
Historical Releases to On-Site Shallow Soil	Overland Flow				Indoor air	Inhalation	✓	✓	∅	∅
Historical Releases to On-Site Shallow Soil			Volatilization		Outdoor air	Inhalation	I	I	I	I
Historical Releases to On-Site Shallow Soil	Leaching	Groundwater			Groundwater	Ingestion Dermal Contact Inhalation	✓ ✓ ✓	I	∅ ∅ ∅	∅ ∅ ∅
Historical Releases to On-Site Shallow Soil				South Fork of the Palouse River	Surface Water and Sediment	Ingestion Dermal Contact	I	I	I	I
Historical Releases to On-Site Shallow Soil				South Fork of the Palouse River	Fish Tissue (via Bioaccumulation)	Ingestion	∅	∅	∅	∅

Notes:

→ Primary pathway
⇢ Potential pathway
✓ Potentially complete exposure route
∅ Incomplete exposure route
I Insignificant exposure route

APPENDIX A
BORING LOGS

Geologic Borehole Log

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Project Number	Boring Number	Sheet
0457.02.03	SB-1	1 of 1

Project Name	College Avenue Steam Plant		
Project Location	Pullman, Washington	Surface Elevation (feet)	
Start/End Date	10/19/2021 to 10/19/2021	Northing	
Driller/Equipment	Northern Lights Drilling/Truck-mounted Geoprobe 5410	Easting	
Geologist/Engineer	C. Busch	Total Depth of Borehole	16.0-feet
Sample Method	Direct Push	Outer Hole Diam	2.25-inch

Depth (feet, BGS)	Water Levels	Sample Data: Percent Recovery	Sample Data: Screen Int.	Sample Data: Sample ID	Sample Data: PID (ppm)	Lithologic Column	Soil Description
1							0.0 to 1.0 feet: COAL; black; 95% coal fragments; 5% gravel, fine to medium; angular; medium dense; dry to moist.
2		100					1.0 to 9.9 feet: SILT (ML); olive gray; 90% fines, low plasticity; 10% sand, fine; trace coal fragments to a depth of 2.2 feet bgs; stiff; moist.
3				SB-1-2.5			@ 3.0 feet: Becomes mottled brown.
4							
5							
6		100					
7							
8							
9							
10		100					9.9 to 14.1 feet: SILT (ML); dark gray; 100% fines; medium plasticity; trace fine sand; stiff; moist.
11							@ 10.3 feet: 0.5-foot-thick layer of black organic soil with abundant woody debris and moderate organic odor.
12							
13	▼						
14	▽	100					
15				SB-1-15.0			14.1 to 16.0 feet: SAND (SP); brown; 5% fines; 95% sand, fine to medium, angular to subangular; medium dense; wet.
16							

Total Depth = 16.0 feet bgs

NOTES:

1) bgs = below ground surface. 2) PID = photoionization detector. 3) ppm = parts per million. 4) PID meter malfunctioned during drilling.

Borehole Completion Details
0 to 16.0 feet: 2.25-inch borehole.

Reconnaissance Well Completion Details
Temporary polyvinyl chloride screen set from 11.0 to 16.0 feet bgs.

Borehole Abandonment Details
0.0 to 16.0 feet bgs: Bentonite chips hydrated with potable water.

▽ **Soil becomes wet at 14.1 feet bgs as observed in the core sample.** ▼ **Water level measurement is 12.95 feet bgs, observed after temporary well installation.**

MFA BOREHOLE W/RECON SCREEN W:\GINT\GINTW\PROJECTS\0457.02\WSU STEAM PLANT LOGS.GPJ 12/23/21

Geologic Borehole Log

MAUL FOSTER ALONGI

Project Number	Boring Number	Sheet
M0457.02.003	**SB-2**	**1 of 1**

Project Name	**College Avenue Steam Plant**		
Project Location	**Pullman, Washington**	Surface Elevation (feet)	
Start/End Date	**10/19/2021 to 10/19/2021**	Northing	
Driller/Equipment	**Northern Lights Drilling/Truck-mounted Geoprobe 5410**	Easting	
Geologist/Engineer	**C. Busch**	Total Depth of Borehole	**17.0 feet**
Sample Method	**Direct Push**	Outer Hole Diam	**2.25 inchES**

Depth (feet, bgs)	Water Levels	Percent Recovery	Screen Int.	Sample Data: Sample ID	Sample Data: PID (ppm)	Lithologic Column	Soil Description
1							0.0 to 1.4 feet: COAL; black; 100% coal fragments; medium dense; dry.
2		100		SB-2-2.0			1.4 to 3.6 feet: SILTY SAND (SM); grayish brown; 40% fines, nonplastic; 40% sand, fine; 20% gravel, fine, angular; trace coal fragments; trace brown mottling; medium dense; moist.
3							
4							3.6 to 8.3 feet: SILT WITH SAND (ML); brown; 85% fines, low plasticity; 15% sand, fine; stiff; moist.
5							
6		100					
7							
8							
9							8.3 to 11.6 feet: SILT (ML); very dark brown to dark grayish brown; 95% fines, medium plasticity; 5% sand, fine; trace organics; slight organic odor; soft to stiff; moist.
10		90					@ 9.5 to 10.3 feet: Natural woody debris present.
11							
12	▼						11.6 to 12.0 feet: No recovery.
							12.0 to 13.7: Same as above.
13							
14		95					13.7 to 15.3 feet: SANDY SILT (ML); brown; 55% fines, nonplastic; 45% sand, fine; mottled with reddish orange; stiff; moist to wet.
15	▽			SB-2-15.0			@ 15.1 feet: Becomes wet.
16							15.3 to 15.8 feet: SAND (SP); brown; 5% fines; 95% sand, fine to medium, angular to subangular; medium dense; wet.
							15.8 to 16.0 feet: No recovery.
17		100					16.0 to 17.0 feet: BEDROCK; black; basalt; fractured; very weathered to gravel size particles; becomes harder and less weathered with depth. Push probe met refusal at 17.0 feet bgs.

Total Depth = 17.0 feet bgs

NOTES:

1) bgs = below ground surface. 2) PID = photoionization detector. 3) ppm = parts per million. 4) PID meter malfunctioned during drilling.

Borehole Completion Details
0 to 17.0 feet: 2.25-inch borehole.

Reconnaissance Well Completion Details
Temporary polyvinyl chloride screen set from 12.0 to 17.0 feet bgs.

Borehole Abandonment Details
0.0 to 17.0 feet bgs: Bentonite chips hydrated with potable water.

▽ ***Soil becomes wet at 15.1 feet bgs as observed in the core sample.*** ▼ ***Water level measurement is 12.95 feet bgs, observed after temporary well installation.***

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Geologic Borehole Log

Project Number	Boring Number	Sheet
M0457.02.003	**SB-3**	**1 of 1**

Project Name	**College Avenue Steam Plant**		
Project Location	**Pullman, Washington**	Surface Elevation (feet)	
Start/End Date	**10/19/2021 to 10/19/2021**	Northing	
Driller/Equipment	**Northern Lights Drilling/Truck-mounted Geoprobe 5410**	Easting	
Geologist/Engineer	**C. Busch**	Total Depth of Borehole	**16.0 feet**
Sample Method	**Direct Push**	Outer Hole Diam	**2.25 Inches**

Depth (feet, bgs)	Water Levels	Percent Recovery	Screen Int.	Sample Data: Sample ID	Sample Data: PID (ppm)	Lithologic Column	Soil Description
1							0.0 to 0.5 feet: GRAVELLY SAND (SW); 5% fines; 75% sand, fine to coarse, angular; 20% gravel, fine to medium, angular; medium dense; dry.
							0.5 to 0.9 feet: COAL; black; 100% coal fragments; medium dense; moist.
2		88					0.9 to 3.5 feet: SILT (ML); brown; 90% fines, low plasticity; 10% sand, fine; trace coal and brick fragments; stiff; moist.
3							
4							3.5 to 4.0 feet: No recovery.
5				SB-3-5.0			4.0 to 7.3 feet: Same as above. Trace coal and brick fragments 4.0 to 5.0 feet bgs.
6		83					
7							
8							7.3 to 8.0 feet: No recovery.
9							8.0 to 13.3 feet: Same as above.
10		100					
11							
12	▼						
13	▽			SB-3-13.0			
14		83					13.3 to 15.3 feet: GRAVELLY SAND WITH SILT (SW-SM); brown; 10% fines; 60% sand, fine to coarse, angular to subangular; 30% gravel, fine to medium, angular; medium dense; wet.
15							
16							15.3 to 16.0 feet: No recovery.

Total Depth = 16.0 feet bgs

NOTES:

1) bgs = below ground surface. 2) PID = photoionization detector. 3) ppm = parts per million. 4) PID meter malfunctioned during drilling.

Borehole Completion Details
0 to 16.0 feet: 2.25-inch borehole.

Reconnaissance Well Completion Details
Temporary polyvinyl chloride screen set from 11.0 to 16.0 feet bgs.

Borehole Abandonment Details
0.0 to 16.0 feet bgs: Bentonite chips hydrated with potable water.

▽ Soil becomes wet at 13.3 feet bgs as observed in the core sample. ▼ Water level measurement is 12.42 feet bgs, observed after temporary well installation.

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Geologic Borehole Log

Project Number	Boring Number	Sheet
M0457.02.003	**SB-5**	**1 of 1**

Project Name	**College Avenue Steam Plant**		
Project Location	**Pullman, Washington**	Surface Elevation (feet)	
Start/End Date	**10/19/2021 to 10/19/2021**	Northing	
Driller/Equipment	**Northern Lights Drilling/Truck-mounted Geoprobe 5410**	Easting	
Geologist/Engineer	**C. Busch**	Total Depth of Borehole	**20.0 Feet**
Sample Method	**Direct Push**	Outer Hole Diam	**2.25 Inches**

Depth (feet, bgs)	Water Levels	Percent Recovery	Screen Int.	Sample Data: Sample ID	Sample Data: PID (ppm)	Lithologic Column	Soil Description
1					0.2		0.0 to 3.0 feet: SILTY SAND (SM); dark gray and olive brown; 30% fines, nonplastic; 50% sand, fine to coarse, angular; 20% gravel, fine to coarse, angular; trace coal fragments; medium dense; moist. Coal fragments increase with depth.
2		100					
3					0.2		
4							3.0 to 3.8 feet: COAL; black; 100% coal fragments; medium dense; moist.
5							3.8 to 7.0 feet: SILT (ML); dark gray; 90% fines, nonplastic; 10% sand, fine, trace wood fragements at 3.9 feet bgs; stiff; moist.
6		75		SB-5-5.0	0.0		
7							
8							7.0 to 8.0 feet: No recovery.
9							8.0 to 11.1 Same as above.
10		100			0.0		
11							
12							11.1 to 15.3 feet: SILT (ML); brown; 90% fines, low plasticity; 10% sand, fine; mottled to 11.7 feet bgs; stiff; moist. Sand content increases with depth.
13							
14		90					
15	▼			SB-5-15.0	0.0		
16	▽						15.3 to 15.6 feet: SILTY SAND (SM); light brown; 50% fines; low plasticity; 50% sand, fine; medium dense; moist.
17							15.6 to 16.0 feet: No recovery.
18		100					16.0 to 17.0 feet: Same as above, becomes wet.
19							17.0 to 20.0 feet: SAND (SP); light brown; 10% fines; 90% sand, fine to medium, angular to subangular; medium dense; wet.
20							

Total Depth = 20.0 feet bgs

NOTES:

1) bgs = below ground surface. 2) PID = photoionization detector. 3) ppm = parts per million.

Borehole Completion Details
0 to 20.0 feet: 2.25-inch borehole.

Reconnaissance Well Completion Details
Temporary polyvinyl chloride screen set from 15.0 to 20.0 feet bgs.

Borehole Abandonment Details
0.0 to 20.0 feet bgs: Bentonite chips hydrated with potable water.

▽ **Soil becomes wet at 16.0 feet bgs as observed in the core sample.** ▼ **Water level measurement is 15.5 feet bgs, observed after temporary well installation.**

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Geologic Borehole Log

Project Number	Boring Number	Sheet
M0457.02.003	**SB-6**	**1 of 1**

Project Name	**College Avenue Steam Plant**		
Project Location	**Pullman, Washington**	Surface Elevation (feet)	
Start/End Date	**10/19/2021 to 10/19/2021**	Northing	
Driller/Equipment	**Northern Lights Drilling/Truck-mounted Geoprobe 5410**	Easting	
Geologist/Engineer	**C. Busch**	Total Depth of Borehole	**3.0 feet**
Sample Method	**Direct Push**	Outer Hole Diam	**2.25 inches**

Depth (feet, bgs)	Water Levels	Sample Data: Percent Recovery	Sample Data: Screen Int.	Sample Data: Sample ID	Sample Data: PID (ppm)	Lithologic Column	Soil Description
1		67					0.0 to 1.0 feet: SILT WITH SAND (ML); brown; 80% fines, nonplastic; 20% sand, fine; trace rootlets to 0.4 feet bgs; medium dense; dry.
2							1.0 to 2.0 feet: SANDY GRAVEL (GP); gray to dark gray; 20% sand, fine to coarse, angular; 80% gravel, fine to coarse, angular (comprised of basalt); very dense; dry.
3							2.0 to 3.0 feet: No recovery. Push probe refusal at 3.0 feet bgs (likely basalt bedrock).

Total Depth = 3.0 feet bgs

NOTES:

1) bgs = below ground surface. 2) PID = photoionization detector. 3) ppm = parts per million. 4) PID meter malfunctioned during drilling. 5) Two attempts were made at this drilling location. A temporary screen was not installed at this location due to the shallow depth of bedrock.

Borehole Completion Details
0 to 3.0 feet: 2.25-inch borehole.

Borehole Abandonment Details
0.0 to 3.0 feet bgs: Bentonite chips hydrated with potable water.

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Geologic Borehole Log

Project Number	Boring Number	Sheet
M0457.02.003	SB-7	1 of 1

Project Name	College Avenue Steam Plant		
Project Location	Pullman, Washington	Surface Elevation (feet)	
Start/End Date	10/19/2021 to 10/19/2021	Northing	
Driller/Equipment	Northern Lights Drilling/Truck-mounted Geoprobe 5410	Easting	
Geologist/Engineer	C. Busch	Total Depth of Borehole	21.0 feet
Sample Method	Direct Push	Outer Hole Diam	2.25 inches

Depth (feet, bgs)	Water Levels	Percent Recovery	Screen Int.	Sample Data: Sample ID	Sample Data: PID (ppm)	Lithologic Column	Soil Description
1					0.0		0.0 to 2.4 feet: GRAVELLY SAND WITH SILT (SP-SM); dark brown; 10% fines; 40% sand, fine to coarse, angular; 50% gravel, fine to medium, angular; medium dense; moist.
2		60					1.4 to 2.4 feet: Black trace coal fragments; appear burnt.
3					0.0		2.4 to 4.0 feet: No recovery.
4							
5		80					4.0 to 5.4 feet: Same as above; trace coal fragments from 5.0 to 5.4 feet bgs.
6					0.0		5.4 to 7.2 feet: SILT (ML); brown; 100% fines; low plasticity; firm to stiff; moist.
7							
8				SB-7-7.5			7.2 to 8.0 feet: No recovery.
9		100					8.0 to 12.5 feet: Same as above.
10					0.0		
11							
12							
13		100					12.5 to 20.0 feet: SANDY SILT (ML); light brown; 60% fines, low plasticity; 40% sand, fine; slight mottling; stiff; moist to wet. Increase in sand content with depth.
14							
15					0.0		
16							
17	▼						
18	▽	100					
19				SB-7-18.5	0.0		@ 18.7 feet: Becomes wet.
20							
21		100					20.0 to 21.0 feet: SILTY GRAVEL (GM); olive gray; 30% fines, medium plasticity; 20% sand, fine to coarse, angular; 50% gravel, fine to coarse, angular (comprised of basalt); dense; wet. Push probe refusal at 21.0 feet bgs (likely basalt bedrock).

Total Depth = 21.0 feet bgs

NOTES:

1) bgs = below ground surface. 2) PID = photoionization detector. 3) ppm = parts per million.

Borehole Completion Details
0 to 20.0 feet: 2.25-inch borehole.

Reconnaissance Well Completion Details
Temporary polyvinyl chloride screen set from 16.0 to 21.0 feet bgs.

Borehole Abandonment Details
0.0 to 21.0 feet bgs: Bentonite chips hydrated with potable water.

▽ **Soil becomes wet at 18.7 feet bgs as observed in the core sample.** ▼ **Water level measurement is 16.57 feet bgs, observed after temporary well installation.**

MFA BOREHOLE W/RECON SCREEN W:\GINT\GINTW\PROJECTS\0457.02\WSU STEAM PLANT LOGS.GPJ 12/23/21

APPENDIX B

FIELD SAMPLING DATA SHEETS

Maul Foster & Alongi, Inc.

601 East Front Avenue, Suite 202, Coeur d'Alene, Idaho (208) 664-7880

Water Field Sampling Data Sheet

Client Name	Port of Whitman County	**Sample Location**	SB-1		
Project #	M0457.02.003	**Sampler**	L. Pritzl		
Project Name	College Avenue Steam Plant	**Sampling Date**	10/19/2021		
Sampling Event		**Sample Name**	SB-1-GW		
Sub Area		**Sample Depth**	15		
FSDS QA:	CWB 1/11/2021	**Easting**		**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
10/19/2021	14:45	15.85		12.95			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	2:50:00 PM		0.15						1000
	2:59:00 PM	1	0.15						897
	3:20:00 PM	1.25	0.15	6.96	17.6	690.1			48
	3:25:00 PM		0.15	6.98	17.6	690.9			50.3
	3:30:00 PM		0.15	6.97	17.6	690.8			46.6
Final Field Parameters	3:35:00 PM		0.15	6.98	17.6	690.8			43.9

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	3:35:00 PM	VOA-Glass	7	No
			Amber Glass	2	
			White Poly	1	
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

Began purge at 14:50.

Signature _____

Maul Foster & Alongi, Inc.

601 East Front Avenue, Suite 202, Coeur d'Alene, Idaho (208) 664-7880

Water Field Sampling Data Sheet

Client Name	Port of Whitman County	**Sample Location**	SB-2
Project #	M0457.02.003	**Sampler**	L. Pritzl
Project Name	College Avenue Steam Plant	**Sampling Date**	10/19/2021
Sampling Event		**Sample Name**	SB-2-GW
Sub Area		**Sample Depth**	16
FSDS QA:	CWB 1/11/2021	**Easting**	**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
10/19/2021	15:48	16.62		12.07			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	3:55:00 PM		0.2						
	4:05:00 PM	1	0.2						693
	4:16:00 PM	2	0.2	7.18	16.5	927.7			43.1
	4:21:00 PM		0.2	7.19	16.5	927.5			54.7
	4:26:00 PM		0.2	7.19	16.5	925.6			48.8
Final Field Parameters	4:30:00 PM	3	0.2	7.2	16.5	925.3			51.6

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:30:00 PM	VOA-Glass	7	No
			Amber Glass	2	
			White Poly	1	
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

Began purge at 15:55.

Signature _____

Maul Foster & Alongi, Inc.

601 East Front Avenue, Suite 202, Coeur d'Alene, Idaho (208) 664-7880

Water Field Sampling Data Sheet

Client Name	Port of Whitman County	**Sample Location**	SB-3		
Project #	M0457.02.003	**Sampler**	L. Pritzl		
Project Name	College Avenue Steam Plant	**Sampling Date**	10/19/2021		
Sampling Event		**Sample Name**	SB-3-GW		
Sub Area		**Sample Depth**	15		
FSDS QA:	CWB 1/11/2021	**Easting**		**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
10/19/2021	16:09	15.77		12.42			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	4:13:00 PM		0.25						
	4:53:00 PM	2.5	0.25						662
	4:58:00 PM		0.15						
	5:08:00 PM		0.15	6.84	16.2	528.8			58.8
	5:13:00 PM		0.15	6.89	16.1	525			42.7
	5:18:00 PM		0.15	6.84	16.1	522.6			56.6
Final Field Parameters	5:20:00 PM		0.15	6.79	16.1	523.1			52.2

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	5:20:00 PM	VOA-Glass	7	No
			Amber Glass	2	
			White Poly	1	
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

Began purge at 16:13.

Signature _____

Maul Foster & Alongi, Inc.

601 East Front Avenue, Suite 202, Coeur d'Alene, Idaho (208) 664-7880

Water Field Sampling Data Sheet

Client Name	Port of Whitman County	**Sample Location**	SB-5		
Project #	M0457.02.003	**Sampler**	L. Pritzl		
Project Name	College Avenue Steam Plant	**Sampling Date**	10/19/2021		
Sampling Event		**Sample Name**	SB-5-GW		
Sub Area		**Sample Depth**	19		
FSDS QA:	CWB 1/11/2021	**Easting**		**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
10/19/2021	12:00	19.9		15.5			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	12:18:00 PM	0	0.15						1000
	12:42:00 PM	1	0.1						1524
	12:49:00 PM	1.25	0.1						927
	1:17:00 PM	2	0.1	7	17.6	584.8			58.4
	1:23:00 PM		0.1	6.92	17.6	578.8			47.2
	1:28:00 PM		0.1	6.96	17.5	577.9			47.9
Final Field Parameters	1:30:00 PM	2.5	0.1	6.96	17.5	577.8			43.9

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	1:30:00 PM	VOA-Glass	7	No
			Amber Glass	2	
			White Poly	1	
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

Began purge at 12:18.

Signature _____

Maul Foster & Alongi, Inc.

601 East Front Avenue, Suite 202, Coeur d'Alene, Idaho (208) 664-7880

Water Field Sampling Data Sheet

Client Name	Port of Whitman County	**Sample Location**	SB-7		
Project #	M0457.02.003	**Sampler**	L. Pritzl		
Project Name	College Avenue Steam Plant	**Sampling Date**	10/19/2021		
Sampling Event		**Sample Name**	SB-7-GW		
Sub Area		**Sample Depth**	20		
FSDS QA:	CWB 1/11/2021	**Easting**		**Northing**	**TOC**

Hydrology/Level Measurements

					(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
Date	**Time**	**DT-Bottom**	**DT-Product**	**DT-Water**	**DTP-DTW**	**DTB-DTW**	**Pore Volume**
10/19/2021	13:55	20.75		16.57			

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	ORP	Turbidity
(2) Peristaltic Pump	2:13:00 PM	0.25	0.1						2112
Final Field Parameters	4:50:00 PM		0.1						

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

Water Quality Observations:

Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	4:50:00 PM	VOA-Glass	7	No
			Amber Glass	2	
			White Poly	1	
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	10	

General Sampling Comments

Well ran dry after collecting 0.25 gallons, allowed well to recharge and grabbed sample at 16:50 without parameters.

Signature _____

Soil Gas Field Sampling Data Sheet
College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Sample ID	Sample Date	Initial Vaccum ("Hg)	Shut-in Test	SUMMA Canister No.	Manifold No.	Sample Size/Rate	Purge Time		Helium Concentration		Purge		Sample Time		Sample Vaccum	
							Begin	End	Outdoor Ambient Air (ppm)	Under Shroud (%, >50%)	Purge Volume (L)	Helium Concentration in Tedlar Bag	Begin	End	Intial ("Hg)	Final ("Hg)
VP-1	11/12/2021	-28	Yes	12234	008624		10:45	10:50	0.0	50.5	1	100 ppm	11:18	11:21	-28	-4.0
VP-2	11/12/2021	-29	Yes	007655	008708		11:50	11:53	0.0	60.0	1	1300 ppm	12:16	12:19	-29	-5.0
VP-3	11/12/2021	-27	Yes	7268	011424		12:36	12:40	0.0	60.3	1	0.00 ppm	12:44	12:48	-27	-5.0

NOTES:
"Hg= Inches of mercury
ID= identification
L= liter
No.= number
ppm= parts per million
%= percent

APPENDIX C

HAZARDOUS MATERIALS SURVEY REPORT

HAZARDOUS MATERIALS SURVEY REPORT

COLLEGE AVENUE STEAM PLANT
PULLMAN, WASHINGTON

Prepared for
PORT OF WHITMAN COUNTY
December 2, 2021
Project No. 0457.02.03

Prepared by
Maul Foster & Alongi, Inc.
601 East Front Ave., Suite 202, Coeur d'Alene, ID 83814

MAUL
FOSTER
ALONGI

HAZARDOUS MATERIALS SURVEY REPORT
COLLEGE AVENUE STEAM PLANT
PULLMAN, WASHINGTON

The material and data in this report were prepared under the supervision and direction of the undersigned.

MAUL FOSTER & ALONGI, INC.

Emily Curtis
Project Health, Safety, and Environmental Specialist
AHERA Building Inspector Number IR-21-6100B

Sean Maloney
Staff Geologist
AHERA Building Inspector Number IN-20-8991B

CONTENTS

TABLES AND ILLUSTRATIONS

FOLLOWING REPORT:

TABLES

FIGURES

ACRONYMS AND ABBREVIATIONS

ACM	asbestos-containing material
AHERA	Asbestos Hazard Emergency Act
EPA	U.S. Environmental Protection Agency
FSDS	field sampling data sheet
LBP	lead-based paint
MFA	Maul Foster & Alongi, Inc.
PCB	polychlorinated biphenyl
the Port	Port of Whitman County
the Site	College Avenue Steam Plant, 800 NE College Ave, Pullman, WA
WSU	Washington State University
XRF	X-ray fluorescence

EXECUTIVE SUMMARY

This summary is not intended as a stand-alone document and must be evaluated in context with the entire document.

On behalf of the Port of Whitman County (the Port), Maul Foster & Alongi, Inc., conducted a hazardous materials survey at the College Avenue Steam Plant site at 800 NE College Ave, Pullman, Washington, 99163. The purpose of the survey was to identify building materials that may require special handling and/or disposal during demolition or construction activities.

The survey included assessment of painted surfaces for the presence of lead-based paint, collection of samples to assess the presence of asbestos-containing materials, and identification of other potentially hazardous materials that may require abatement and/or management in the future. The following regulated building materials were identified during the survey:

Regulated Material	General Description[a]	Estimated Quantity[b]
Asbestos	Window glazing	4,030 linear feet
	Red paint-coated pipe wrap with compacted white insulation	20 linear feet
	White/gray compacted insulation with white-, silver-, orange-, or tan-painted wrap	3,000 linear feet
	White patch on gray pipe	5 linear feet
	Fire hose	1 hose in room 101. Assumed to be asbestos-containing material.
	Tan 12 x 12-inch vinyl floor tile with black mastic	3,000 square feet
	Fire-resistant board	1 board in room 105. Assumed to be asbestos-containing material.
	Tan 9 x 9-inch vinyl floor tile with black mastic	16 square feet
	Light tan patterned 9 x 9-inch vinyl floor tile with black mastic	76 square feet
	Brown vinyl floor tile	66 square feet
	Brown vinyl floor tile with black mastic	175 square feet
	Brown stipple-patterned 9 x 9-inch vinyl floor tile with black mastic	20 square feet
	White insulation with tan/white-painted woven fibrous mesh	35 linear feet

Regulated Material	General Description[a]	Estimated Quantity[b]
Asbestos	White insulation with silver-painted woven fibrous cover	200 square feet
	Asbestos dust	Door to room 301 has warning of asbestos-containing dust hazard in room.
	White crumbly insulation with yellow woven fibrous mesh and silver paint	600 linear feet
	White crumbly insulation with white fibrous felt and brown paint	1,200 linear feet
	White crumbly insulation with white woven fibrous wrap and red paint	40 linear feet
	Silver woven heat-resistant furnace door lining	80 linear feet
	White insulation with gray painted wrap and fabric patch on elongated tank	20 linear feet
	Orange-painted wrap and gray crumbly insulation	20 linear feet
	Tan 1 x 1-inch and 2 x 2-inch flooring tile with brown adhesive	180 square feet
	Tan cove base with green adhesive	60 linear feet
Lead-based paint	Brown paint	70 linear feet
	Brownish red paint	272 linear feet
	Red paint	1,660 square feet
	Orange paint	3,950 square feet
	Yellow paint	740 linear feet
	Green paint	164 square feet
	White paint	3,386 square feet
	Bright white paint	280 linear feet
	Silver paint	3,025 square feet
	Gray paint	729 square feet
	Light tan paint	24 square feet

Regulated Material	General Description[a]	Estimated Quantity[b]
Potentially PCB-containing fixtures and other hazardous materials[c]	Electrical boxes/panels	39 boxes/panels, including electrical boxes, control boxes, motor control centers, and a safety switch. Potentially PCB-containing.
	Motors	1 motor associated with elevator; 1 motor in room 302; potentially numerous motors associated with boilers. Potentially PCB-containing. May also contain residual mechanical fluids, such as oil.
Potentially PCB-containing fixtures and other hazardous materials[c]	Miscellaneous containers	4 or more containers in room 15, 3 unmarked black cans in room 201, 1 unmarked jug and 1 container of turbine oil in room 302. May contain residual mechanical fluids, such as oil.
	Coal dust	Rooms 204 and 301. Potential breathing hazard due to abundant presence of coal and coal dust.
	Thermostats	2 thermostats. Potentially mercury-containing.
	Boiler control panels	Boiler equipment control panels marked as mercury-containing.
	Steam equipment	Numerous pipes and pieces of equipment. Potentially contains residual mechanical fluids, such as oil.
	Boilers	6 boilers. Potentially containing residual mechanical fluids and coal dust.
	Fluorescent light tubes	89 tubes. Potentially mercury-containing.

NOTES:
PCB = polychlorinated biphenyl.
[a]Detailed descriptions are provided in the main report.
[b]Detailed quantities and locations are provided in the main report. Asbestos and lead paint associated with pipes and other linear surfaces are reported in linear feet in the main report.
[c]Detailed information is provided in the main report.

1 INTRODUCTION

On behalf of the Port of Whitman County (the Port), Maul Foster & Alongi, Inc. (MFA), conducted a hazardous materials survey at the College Avenue Steam Plant site at 800 NE College Avenue in Pullman Washington (the Site). MFA conducted the survey in October 2021. The Site location is provided in Figure 1-1. Areas that were inaccessible due to locked access points or hazardous conditions were not included in the survey. These areas include the roof, subbasement room B2, and basement tunnels in rooms 21 and 23.

The survey included the use of a portable X-ray fluorescence (XRF) device to screen materials for the presence of lead-based paint (LBP); sampling and analysis of suspected asbestos-containing materials (ACM); and visual inspection and tracking of suspected polychlorinated biphenyl (PCB)-containing fixtures, mercury-containing fixtures, and other potentially hazardous materials.

The survey was conducted by certified Asbestos Hazard Emergency Act (AHERA) building inspectors Sean Maloney, Emily Curtis, and Connor Anderson of MFA. AHERA building inspector certificates are provided in Appendix A.

1.1 Material Survey Objective

The objective of this survey was to identify building materials and components that may require abatement, special handling, or disposal during future demolition or construction activities.

1.2 Regulatory Framework

This survey was conducted consistent with regulatory requirements of AHERA in 40 Code of Federal Regulations 763; Washington Administrative Code 296-65; and the Washington Department of Ecology Eastern Regional Office, which administers clean air regulations for Whitman County.

2 BACKGROUND

The Site is located on the Washington State University (WSU) campus in Pullman, Washington. The Site is bound by Northeast College Avenue to the south, the WSU campus to the east, and a railroad line to the west. The surrounding area is largely residential, with a commercial area to the south. The former steam plant facility operated on the Site from 1927 to 2003.

3 FIELD AND ANALYTICAL METHODS

Between October 10 and 14, 2021, MFA conducted the field sampling and survey. The building-material survey was conducted to satisfy federal, state, and local air quality regulations regarding communicating the location, amount, and quality of known ACM and LBP at the Site, as well as to catalogue other potentially hazardous fixtures to be managed before renovation, construction, or demolition. The scope of work included the following:

- Collecting bulk samples of suspected ACMs.
- Using a portable XRF device to field-screen painted surfaces for the presence of lead in surface paint.
- Collecting quality control paint chip samples for laboratory analysis.
- Submitting suspected ACM bulk samples and paint chip samples to a laboratory accredited by the National Voluntary Laboratory Accreditation Program. Suspected ACM samples were analyzed by polarized light microscopy.
- Recording the location, quantity, and quality of hazardous building materials in homogeneous areas identified in the steam plant building.
- Identifying other potentially hazardous materials that may require abatement and/or management.

The survey involved the visual inspection of the interior and exterior of the designated structure.

3.1 Asbestos-Containing Material

MFA's survey of suspected ACM at the Site in the designated structure included collecting bulk samples of thermal system insulation, surfacing materials, and miscellaneous materials from homogeneous areas, consistent with AHERA sampling protocol.

Sampling locations were chosen by the inspectors based on identification of suspected ACM. See Figures 3-1 through 3-4 for ACM sampling locations.

Samples were extracted using hand tools and placed into labeled sample bags. For layered building materials, the layers were penetrated and incorporated into each sample. Samples were sent to NVL Laboratories, Inc., a National Voluntary Laboratory Accreditation Program-accredited laboratory, for analysis by U.S. Environmental Protection Agency (EPA) Polarized Light Microscopy Method 600/R-93-116.

3.2 Lead-Based Paint

MFA conducted a survey for interior and exterior paint coatings of the designated structures, which included XRF readings of each color and/or layer identified. The portable XRF unit used was an

Olympus Vanta C-Series with a reported accuracy range of 0.01 to 5 milligrams of lead per square centimeter. Paint with a concentration of lead detectable by this method is considered "lead-containing." LBP is defined by the EPA and the Washington State Department of Health as paint containing lead concentrations of more than 5,000 parts per million (greater than 0.5 percent).

For quality assurance, MFA collected paint chip samples from approximately 5 percent of the representative XRF sampling locations. The identification of LBP summarized in this report is based on XRF results and confirmation paint chip samples collected from the structures.

See Figures 3-5 through 3-9 for sampling locations.

XRF readings were recorded on the field sampling data sheets (FSDSs) provided in Appendix B. Paint chip samples were placed into labeled sample bags and sent to NVL Laboratories, Inc., for analysis by EPA Method 3051/7000B.

3.3 Mercury, Polychlorinated Biphenyls, and Other Materials

MFA conducted a visual survey to identify fixtures that may contain mercury or PCBSs. MFA also noted the presence of other potentially hazardous materials, such as residual hazardous chemicals in containers. Items were tracked on the FSDSs and are summarized in Table 3-1.

4 ASSESSMENT RESULTS

4.1 Asbestos-Containing Material

Sampling locations are provided in Figures 3-1 through 3-4, and sample results are summarized in Table 4-1. Laboratory reports are provided in Appendix C.

45 of the 156 samples analyzed contained more than 1 percent asbestos. ACM include the following:

- Window glazing on windows throughout the first floor, mezzanine, and upper mezzanine areas.
- Red paint-coated woven pipe wrap with fibrous insulation in room 101 near the double doors on the west side of the room.
- White and gray compacted/crumbly fibrous insulation with white-, silver-, orange-, and/or tan-painted mesh wrapping in the following areas:
  - Rooms 11, 21, 22, 23, 101, 200, and 204.
  - Intermediate catwalks extending from rooms 101 and 200, surrounding the boiler equipment.
  - On boiler components.

- Tan 12 x 12-inch vinyl floor tile with black mastic in room 102.
- Tan 9 x 9-inch vinyl flooring tiles in room 106T.
- Light tan patterned 9 x 9-inch vinyl flooring tiles with black mastic in rooms 106T, 200S, and 204, and in the stairwell from room 102 to the mezzanine.
- White stipple-patterned 12 x 12-inch flooring tiles and underlying brown vinyl tile in room 203.
- Layered light brown patterned 9 x 9-inch vinyl flooring tiles in room 203.
- Layered dark brown stipple-patterned 9 x 9-inch vinyl flooring tiles and associated black mastic in room 202.
- Tan, white, and silver-painted white compacted fibrous insulation on boiler components in room 101, 200, and in the unlabeled mezzanine area above.
- White insulation with silver-painted woven fibrous cover on boiler equipment by the entrance to the northeastern staircase above room 101.
- White crumbly insulation with yellow woven fibrous mesh and silver paint in rooms 21, 22, and 11.
- White crumbly insulation with white fibrous felt and brown paint in rooms 21, 22, and 11.
- White crumbly insulation with white woven fibrous wrap and red paint on steam equipment in room 11 by the spiral staircase.
- Silver woven heat-resistant furnace door lining in room 11 by the control wheels and conveying systems, and by the entrance to the subbasement.
- White insulation with gray-painted wrap and fabric patch on elongated tank in the northeast portion of room 11.
- Orange-painted wrap and gray crumbly insulation on vertical tank in center of room 11.
- Tan 1 x 1-inch and 2 x 2-inch flooring tile with brown adhesive in room 17.
- Tan cove base with green adhesive in west side of room 17.

4.2 Lead-Based Paint

XRF measurement locations and paint chip sampling locations are provided in Figures 3-5 through 3-9. XRF measurements and paint chip sample results are summarized in Table 4-2 and laboratory reports are provided in Appendix C.

Areas and features of the Site with lead content above the EPA-regulated definition of LBP include the following:

- Brown-, red-, orange-, yellow-, and green-painted pipes throughout the basement, room 101, and mezzanine.

- The brownish-red I-beams supporting room 204 surrounding the railroad tracks on the western exterior of the building.
- Red paint near the fire extinguisher in room 101.
- The red-painted box in the northwest corner of the basement.
- Red-, orange-, and white- painted pipe wrap throughout the basement.
- The orange-painted vertical tank in the basement.
- The orange and yellow pipes in the subbasement.
- Yellow paint on the concrete bench west of the north door in room 101.
- The green cabinets on the east side of room 101.
- Green-painted boiler equipment in the basement.
- White paint in room 107.
- Bright white- and tan-painted I-beams in the vicinity of the northwest boiler in the basement, room 101, mezzanine, and upper mezzanine.
- Silver pipes on the western exterior of the building near the railroad tracks.
- Silver- and red-painted steam equipment throughout the basement.
- Gray-painted I-beams in room 301.
- The gray-painted tank in room 18.
- The gray- and tan-painted door to room 15.
- Tan-painted pipes in the basement, room 101, mezzanine, and upper mezzanine.

4.3 Mercury, Polychlorinated Biphenyls, and Other Materials

Observations related to mercury-containing fixtures, PCB-containing fixtures, and other hazardous materials were tracked and recorded on the FSDSs provided in Appendix B. Results are summarized in Table 3-1.

Fixtures potentially containing PCBs, mercury, and other hazardous materials were identified at the Site.

5 SUMMARY AND RECOMMENDATIONS

Based on observations and the results of the material testing, MFA concludes the following:

- Other than pipes specifically marked as non-ACM, the majority of thermal system insulation associated with piping throughout the basement, first floor, mezzanine, and upper mezzanine areas is ACM.
- Window glazing throughout the first floor, mezzanine, and upper mezzanine is ACM.
- The various types of vinyl tile flooring in rooms 103, 104, 200S, 202, and 203 are ACM.
- There are LBP coatings and lead-containing paint throughout the interior and exteriors of the structure.
- Potentially hazardous-materials-containing fixtures are present throughout most of the Site.
- Coal dust residue is present in rooms 201, 204, 301, and 302.
- Room 301 is labeled as an asbestos-containing dust hazard.

5.1 Recommendations

This report should be made available to contractors during bidding on abatement, construction, or demolition work to be conducted on these structures. Prior to any disturbance activities at the site, identified hazardous materials should be abated by a licensed abatement contractor or safely managed in place consistent with a written operations and maintenance plan.

The Port should inform contractors that other hazardous materials or conditions may be discovered during the renovation and demolition activities, which may warrant additional remediation and/or corrective actions.

LIMITATIONS

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

TABLES

Table 3-1
Hazardous Building Materials Survey Summary
College Avenue Steam Plant
Pullman, Washington

Regulated Material	Material Description	Location Description	Estimated Quantity	Comments
Asbestos	Window glazing	On windows throughout room 101, mezzanine, and upper mezzanine	4,030 ln. ft.	Difficult to estimate quantity.
	Red paint-coated pipe wrap with compacted white insulation	Near double doors on west side of room 101	20 ln. ft	
	White / gray compacted insulation with white-, silver-, orange-, or red-painted wrap	Rooms 11, 21, 22, 23, 101, 200, 204, on boiler equipment, and by intermediate catwalks	3,000 ln. ft	Difficult to estimate quantity.
	White patch on gray pipe	North wall of room 101	5 ln. ft	
	Fire hose	Room 101 by west double doors	1 hose	Assumed asbestos containing material.
	Tan 12 x 12-inch vinyl floor tile with black mastic	North wall west of single doorway in room 102	3,000 sq. ft	
	Fire-resistant board	Room 105	1 board	Assumed asbestos-containing material in board.
	Tan 9 x 9-inch vinyl floor tile with black mastic	Room 106T	16 sq. ft	
	Light tan patterned 9 x 9-inch vinyl floor tile with black mastic	Room 106T and staircase to room 200S	76 sq. ft	
	Brown vinyl floor tile	Room 203	66 sq. ft	Layered under white stipple-patterned 12 x 12-inch vinyl floor tile with black mastic.
	Brown vinyl floor tile with black mastic	Room 202	175 sq. ft	Layered under light brown patterned 9 x 9-inch vinyl floor tile with black mastic.
	Brown stipple-patterned 9 x 9-inch vinyl floor tile with black mastic	East side of room 202	20 sq. ft.	2-tile-wide line of darker tiles running east-west through the room.

Table 3-1
Hazardous Building Materials Survey Summary
College Avenue Steam Plant
Pullman, Washington

Regulated Material	Material Description	Location Description	Estimated Quantity	Comments
Asbestos	White insulation with tan / white-painted woven fibrous mesh	Covering T-coupling and pipe in northeast corner of mezzanine	35 ln. ft	Accessed by catwalk near staircase entrance on northeast side of room.
	White insulation with silver-painted woven fibrous cover	Flat sheet on boiler equipment / duct by northeastern boiler	200 sq. ft	Difficult to quantify. Accessed by catwalk near staircase entrance on northeast side of room.
	Asbestos dust	Room 301	1 room	Door to room 301 contains warning of asbestos-containing dust hazard within room.
	White crumbly insulation with yellow woven fibrous mesh and silver paint	Room 21, 22, and 11	600 ln. ft	
	White crumbly insulation with white fibrous felt and brown paint	Room 21, 22, and 11	1,200 ln. ft	
	White crumbly insulation with white woven fibrous wrap and red paint	On steam equipment in room 11 by the spiral staircase	40 ln. ft	
	Silver woven heat-resistant furnace door lining	Room 11 by the control wheels, surveying system, and doorway to sub-basement	80 ln. ft	
	White insulation with gray-painted wrap and fabric patch on elongated tank	Northeast portion of room 11	20 ln. ft	

Table 3-1
Hazardous Building Materials Survey Summary
College Avenue Steam Plant
Pullman, Washington

Regulated Material	Material Description	Location Description	Estimated Quantity	Comments
Asbestos	Orange-painted wrap and gray crumbly insulation	Vertical tank in center of room 11	20 ln. ft	
	Tan 1 x 1-inch and 2 x 2-inch flooring tile with brown adhesive	Room 17	180 sq. ft	
	Tan cove base with green adhesive	Room 17	60 ln. ft	
Lead-Based Paint	Brown paint	Room 101; on pipes	70 ln. ft	
	Brownish red paint	Exterior; support beam of ash pit	272 ln. ft	
	Red paint	Throughout basement, room 101, and mezzanine	1,660 sq. ft	
	Orange paint	Throughout basement, room 101, and sub-basement; on pipes and TSI pipe wrap	645 ln. ft	
	Yellow paint	Basement, room 101, and mezzanine; on pipes and concrete bench	3950 sq. ft	
	Green paint	Basement and room 101; on pipes and cabinets	164 sq. ft	
	White paint	Room 101, room 107, and basement	3,386 sq. ft	
	Bright white paint	Basement; support in center of room between north boilers	280 ln. ft	
	Silver paint	Room 101 and mezzanine; on I-beams	3,025 ln. ft	
	Gray paint	Throughout basement and room 301	729 sq. ft	
	Light tan paint	Basement; door to room 15	24 sq. ft	

Table 3-1
Hazardous Building Materials Survey Summary
College Avenue Steam Plant
Pullman, Washington

Regulated Material	Material Description	Location Description	Estimated Quantity	Comments
PCB-Containing and Other Hazardous Materials	Electrical boxes/panels	Room 11, 101	39 boxes/panels	Potentially PCB-containing. Includes electrical boxes, control boxes, motor control centers, and a safety switch.
	Motors	Elevator in room 101 and room 11; room 302	1 motor associated with elevator; 1 motor in room 302; potentially numerous motors associated with boilers	Potentially PCB-containing. May also contain residual mechanical fluids, such as oil.
	Miscellaneous containers	Room 15	4 or more containers	May contain residual mechanical fluids, such as oil.
		Room 201	3 unmarked black cans	
		Room 302	1 unmarked jug and 1 turbine oil container	
	Coal dust	Rooms 204 and 301	2 rooms	Potential breathing hazard due to abundant presence of coal and coal dust.
	Mercury-containing thermostats	Rooms 104 and 105	2 thermostats	Potentially mercury-containing.
	Mercury-containing fixture	Room 101; east side of room behind controls	1 fixture	Boiler and equipment control panels containing mercury. Panels behind controls are marked as mercury-containing.
	Steam equipment	Throughout basement and room 101	Numerous pipes and pieces of equipment	Potentially contains residual mechanical fluids.
	Boilers	Basement and room 101	6 boilers	Potentially containing residual mechanical fluids and coal dust.
	Fluorescent light tubes	Throughout structure	89 tubes	Potentially mercury-containing.

NOTES:

Quantities of asbestos and lead paint associated with piping and other linear surfaces are reported in linear feet.

ln. ft = linear feet.

PCB = polychlorinated biphenyl.

sq. ft. = square feet.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
First Floor							
1-1-TSI-1	10/11/2021	Condensate pipe	Northwest corner of room 101	Off-white paper with woven fibers and metal foil	ND	--	--
				Yellow loose-fill fibrous material	ND		
1-1-TSI-2	10/11/2021	Condensate pipe	Northwest corner of room 101	Off-white paper with woven fibers and metal foil	ND	--	--
				Yellow loose-fill fibrous material	ND		
1-2-TSI-3	10/11/2021	Elbow on condensate pipe	Northwest corner of room 101	White flexible sheet vinyl	ND	--	--
				Yellow loose-fill fibrous material	ND	--	--
1-3-MISC-4	10/11/2021	Window glazing	Northwest corner of room 101	Pale gray brittle material	4	Fair	4,030 ln. ft.
1-3-MISC-5	10/11/2021	Window glazing	Window at west wall in room 101	Gray brittle crumbly material with paint	ND	--	--
1-4-MISC-6	10/11/2021	Tan cementitious material	Above red brick on northwest corner of northwest boiler in room 101	Beige soft crumbly material	ND	--	--
1-5-MISC-7	10/11/2021	Red brick	Northwest corner of northwest boiler in room 101	Red paint coated hard brittle material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-6-TSI-8	10/11/2021	White insulation with red pipe wrap	By double doors on west side of room 101	Red paint coated woven fibrous material	ND	--	--
				White compacted fine powdery material	30	Damaged	20 ln. ft.
1-7-TSI-9	10/11/2021	Yellow insulation with silver pipe wrap	Silver pipe by double doors on west side of room 101	White paper with woven fibers and metal foil	ND	--	--
				Yellow and pink loose-fill fibrous material	ND	--	--
1-8-TSI-10	10/11/2021	White insulation with silver pipe wrap	Silver pipe on boiler by staircase to lower floor on west side of room 101	White woven fibrous mesh with paint	ND	--	--
				Pale gray crumbly powdery material	ND	--	--
				White compacted fine powdery material	ND	--	--
1-8-TSI-11	10/11/2021	White insulation with silver pipe wrap	Silver pipe on boiler by staircase to lower floor on west side of room 101	White woven fibrous mesh with paint	ND	--	--
				White compacted fine powdery material	35	Damaged	3,000 ln. ft.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-8-TSI-12	10/11/2021	White insulation with silver wrap	Silver insulation on boiler on southwest side of room 101	White woven fibrous mesh with paint	ND	--	--
				White compacted fine powdery material	5	Damaged	3,000 ln. ft.
First Floor							
1-9-MISC-13	10/11/2021	Insulation on sink	Sink on southwest side of room 101	White encapsulated woven fibrous material	ND	--	--
				Tan paper with woven fibers and metal foil	ND	--	--
				Yellow loose-fill fibrous material	ND	--	--
1-8-TSI-14	10/11/2021	White insulation with orange pipe wrap	Orange pipe in southeast corner of room 101	Orange paint coated woven fibrous mesh	ND	--	--
				White compacted fine powdery material	38	Damaged	3,000 ln. ft.
1-10-TSI-15	10/11/2021	White boiler insulation	Southeast corner of room 101 on corrugated boiler	White woven fibrous mesh with paint	ND	--	--
				Off-white crumbly material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-11-MISC-16	10/11/2021	Tan soundproofing material	Southeast corner of room 101 on corrugated boiler wall	Yellow loose-fill fibrous material	ND	--	--
1-12-MISC-17	10/11/2021	Gray fibrous material	Green cabinet in southeast corner of room 101	Pale gray loose-fill fibrous material	ND	--	--
1-8-TSI-18	10/11/2021	White insulation	East side of room 101	Tan woven fibrous mesh with paint	ND	--	--
				White compacted fine powdery material	40	Damaged	3,000 ln. ft.
1-13-MISC-19	10/11/2021	Gray and tan soundproofing material wrap	Boiler in northeast corner of room 101	White woven fibrous cloth	ND	--	--
				White loose-fill fibrous material	ND	--	--
1-14-TSI-20	10/11/2021	White patch on gray pipe	North wall of room 101	White and tan woven fibrous mesh with paint	ND	--	--
				White compacted powdery material	40	Damaged	3,000 ln. ft.
1-8-TSI-21	10/11/2021	White insulation with dark gray pipe wrap	Dark gray pipe between boilers 4 and 5 in room 101	Dark gray paint coated woven mesh	ND	--	--
				Off-white fine compacted powdery material	37	Damaged	3,000 ln. ft.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-13-MISC-22	10/11/2021	Gray fabric material	Southeast boiler by double doors on south end of room 101	White woven fibrous cloth with paint	ND	--	--
				Yellow loose-fill fibrous material	ND	--	--
1-15-MISC-23	10/11/2021	Tan 12 x 12 in. vinyl floor tile with black mastic	Northeast corner of room 104	Tan patterned vinyl tile	ND	--	--
				Black asphaltic mastic	ND	--	--
First Floor							
1-15-MISC-24	10/11/2021	Tan 12 x 12 in. vinyl floor tile with black mastic	Northeast corner of room 105	Tan patterned vinyl tile	ND	--	--
				Black asphaltic mastic	ND	--	--
1-16-MISC-25	10/11/2021	Brown base cove with brown mastic	East wall of room 104	Brown rubbery material	ND	--	--
				Brown brittle mastic	ND	--	--
1-16-MISC-26	10/11/2021	Brown base cove with brown mastic	East wall of room 104	Brown rubbery material	ND	--	--
				Brown brittle mastic	ND	--	--
1-17-MISC-27	10/11/2021	Light gray wallboard	North wall of room 105	Pale gray brittle sandy material with paint	ND	--	--
				White chalky material with paper	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-18-MISC-28	10/11/2021	Light gray cementitious wallboard	North wall of room 104 in light switch casing	Pale gray brittle sandy material with paint	ND	--	--
1-19-MISC-29	10/11/2021	White 18 x 36 in. ceiling tile with randomized stipple pattern	Northwest corner of room 104 above light switch	Pale gray compressed fibrous material with paint	ND	--	--
1-20-MISC-30	10/11/2021	White 18 x 36 in. ceiling tile with uniform stipple pattern	Southeast corner above cabinet in room 104	Pale gray compressed fibrous material with paint	ND	--	--
1-19-MISC-31	10/11/2021	White 18 x 36 in. ceiling tile with randomized stipple pattern	Northwest corner of room 105	Beige fibrous material with white paint	ND	--	--
1-8-TSI-32	10/11/2021	Pipe insulation with white pipe wrap	Southeast corner of room 104 on white pipe	White fibrous material with painted cloth wrap	50	Damaged	3,000 ln. ft.
1-21-MISC-33	10/11/2021	Gray blue laminate countertop with black and green mastic	Gray blue counter top on east side of room 104	Blue laminate with clear adhesive	ND	--	--
1-22-MISC-34	10/11/2021	Dark brown base cove with brown mastic	Northwest corner of room 102 by stairs	Brown rubbery material	ND	--	--
				Brown brittle mastic	ND	--	--
1-22-MISC-35	10/11/2021	Dark brown base cove with brown mastic	North wall east of double door in room 102	Brown rubbery material	ND	--	--
				Clear soft adhesive	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-23-MISC-36	10/11/2021	Gray cementitious patching material	North wall, west of transformer box and east of the double doors in room 102	Gray cementitious material	ND	--	--
First Floor							
1-24-MISC-37	10/11/2021	Light gray 12 x 12 in. vinyl floor tile with gray mastic	North wall west of single doorway in room 102	Beige/light gray vinyl tile	ND	--	--
				Tan brittle mastic	ND	--	--
				Light gray sandy material	ND	--	--
1-15-MISC-38	10/11/2021	Tan 12 x 12 in. vinyl floor tile with black mastic	North wall west of single doorway in room 102	Beige vinyl tile	ND	--	--
				Black asphaltic mastic	6	Fair	3,000 sq. ft
1-25-MISC-39	10/11/2021	Black transition strip with brown mastic	Double doorway between room 102 and 101	Black rubbery material	ND	--	--
				Clear soft adhesive	ND	--	--
1-26-MISC-40	10/11/2021	Rubber stair tread with clear mastic	South side of stairway to Room 106T and 107	Light brown rubbery material	ND	--	--
				Clear soft adhesive	ND	--	--
1-27-MISC-41	10/11/2021	Dark brown patterned 9 x 9 in. vinyl floor tiles with black mastic	Center floor of room 106T	Brown vinyl tile	3	Fair	16 sq. ft.
				Black asphaltic mastic	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-28-MISC-42	10/11/2021	Light tan patterned 9 x 9 in. vinyl floor tile with black mastic	Center floor of room 106T	Brown vinyl tile	3	Fair	76 sq. ft.
				Black asphaltic mastic	ND	--	--
1-18-MISC-43	10/11/2021	White drywall with cementitious wallboard	West wall by door in room 106T	White chalky material with paper	ND	--	--
				Light gray cementitious material	ND	--	--
1-29-MISC-44	10/11/2021	White plastic waterproofing material with pale yellow adhesive	West wall next to window in room 107	White hard plastic like material	ND	--	--
				Yellow soft mastic	ND	--	--
1-3-MISC-45	10/11/2021	Window glazing	West wall window frame in room 107	White crumbly material with green paint	ND	--	--
1-1-TSI-46	10/11/2021	Condensate pipe	Pipe in northwest corner of room 107	Yellow fibrous material with metal foil	ND	--	--
1-25-MISC-47	10/11/2021	Black transition strip with brown mastic	West stairway moving down in room 102	Black rubbery material	ND	--	--
				Clear soft adhesive	ND	--	--
1-28-MISC-48	10/11/2021	Light tan patterned 9 x 9 in. vinyl floor tile with black mastic	West stairway moving up in room 102	Light brown vinyl tile	4	Fair	76 sq. ft.
				Black asphaltic fibrous backing with brown mastic	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
1-30-MISC-49	10/11/2021	Black base cove with tan mastic	Top of stairway from room 102 to 107; North wall at the top of stairs	Black rubbery material	ND	--	--
				Beige soft mastic with tan color paint	ND	--	--
Mezzanine							
2-1-MISC-1	10/12/2021	White stipple pattern 12 x 12 in. vinyl floor tile with black mastic	Northwest corner floor in room 202	Beige vinyl tile	ND	--	--
				Black/gray asphaltic mastic	ND	--	--
2-1-MISC-2	10/12/2021	White stipple pattern 12" x 12" vinyl floor tile with black mastic	Southeast corner floor in room 203	Beige vinyl tile	ND	--	--
				Light gray sandy material with yellow mastic	ND	--	--
				Black asphaltic mastic	ND	--	--
				Brown vinyl tile	8	Fair	66 sq. ft.
				Black asphaltic fibrous felt with mastic	ND	--	--
2-2-MISC-3	10/12/2021	Tan laminate countertop with clear mastic	Southeast corner of counter in room 203	Laminate beige color with clear adhesive	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
2-3-MISC-4	10/12/2021	Layered light brown patterned 9 x 9 in. vinyl floor tile with black mastic	West side of floor in room 202	Light brown vinyl tile	ND	--	--
				Black asphaltic mastic	ND	--	--
				Brown vinyl tile	8	Fair	175 sq. ft.
				Black asphaltic mastic	ND	--	--
2-3-MISC-5	10/12/2021	Layered light brown patterned 9 x 9 in. vinyl floor tile with black mastic	Southwest corner of floor in room 203	Light brown vinyl tile	ND	--	--
				Black asphaltic mastic	ND	--	--
2-4-MISC-6	10/12/2021	Brown stipple-patterned 9 x 9 in. vinyl floor tile with black mastic	East side of floor north of door in room 202	Light brown vinyl tile	3	Fair	20 sq. ft.
				Black asphaltic fibrous felt with mastic	6	Fair	20 sq. ft.
2-5-MISC-7	10/12/2021	Black base cove with tan mastic	Northeast corner of room 202	Black rubbery material	ND	--	--
				Tan soft mastic	ND	--	--
2-6-TSI-8	10/12/2021	Yellow insulation with white pipe wrap	Pipe on west wall in room 202	Yellow fibrous material with metal foil wrap	ND	--	--
2-7-MISC-9	10/12/2021	Window glazing	Northwest window in room 202	Light gray soft rubbery material with paint	ND	--	--
2-7-MISC-10	10/12/2021	Window glazing	Southeast window in room 203	Light gray soft rubbery material with paint	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
2-8-MISC-11	10/12/2021	White drywall with cementitious wallboard	East wall above sink in room 203	White chalky material with paper	ND	--	--
				Tan chalky material	ND	--	--
2-8-MISC-12	10/12/2021	White drywall with cementitious wallboard	Northwest corner wall under window in room 202	Pale gray brittle sandy material with paint	ND	--	--
				Thin layer of black asphaltic material	ND	--	--
Mezzanine							
2-9-MISC-13	10/12/2021	Brown base cove with brown mastic	West wall in room 200S, north of door to room 202	Brown rubbery material	ND	--	--
				Brown brittle mastic	ND	--	--
2-10-TSI-14	10/12/2021	White insulation with orange pipe wrap	Pipe on east wall south of single door in room 204	White woven fibrous mesh with paint	ND	--	--
				White compacted fine powdery material	34	Damaged	14 ln. ft.
2-11-MISC-15	10/12/2021	Red 12 x 12 in. brick	West wall south of double door in room 204	Red hard brittle crumbly material	ND	--	--
2-12-MISC-16	10/12/2021	Gray brick mortar	West wall south of double door in room 204	Pale gray hard brittle sandy material	ND	--	--
2-11-MISC-17	10/12/2021	Red 12 x 12 in. brick	North wall below window in room 204	Red hard brittle crumbly material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
2-12-MISC-18	10/12/2021	Gray brick mortar	North wall below window in room 204	Pale gray hard brittle sandy material	ND	--	--
2-13-TSI-19	10/12/2021	White insulation with pipe wrap	Second catwalk on southwest side of Boiler 6 in room 200	White compacted fine powdery material	ND	--	--
2-13-TSI-20	10/12/2021	White insulation with pipe wrap	Second catwalk on southwest side of Boiler 6 in room 200	White woven fibrous mesh with paint	ND	--	--
				White compacted fine powdery material	ND	--	--
2-14-TSI-21	10/12/2021	Fabric material with white insulation	Second catwalk on southwest side of Boiler 6 in room 200	White woven fibrous cloth with paint	ND	--	--
				White loose-fill fibrous material	ND	--	--
2-13-TSI-22	10/12/2021	White insulation with pipe wrap	Second catwalk on southwest side of Boiler 6 in room 200	White woven fibrous mesh with paint	ND	--	--
				White and pale gray compacted fine powdery material	ND	--	--
2-13-TSI-23	10/12/2021	White insulation with pipe wrap	Second catwalk on southeast side of Boiler 6 in room 200	Tan woven fibrous mesh with paint	ND	--	--
				Pale gray compacted fine powdery material	38	Damaged	3,000 ln. ft.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
2-14-TSI-24	10/12/2021	Fabric material with white insulation	Second catwalk on southeast side of Boiler 6 in room 200	White woven fibrous cloth	ND	--	--
				White loose-fill fibrous material	ND	--	--
2-13-TSI-25	10/12/2021	White insulation with pipe wrap	Second catwalk on south side of Boiler 6 in room 200	Off-white compacted fine powdery material	30	Damaged	3,000 ln. ft.
Mezzanine							
2-15-TSI-26	10/12/2021	White insulation with white pipe wrap	Southeast corner of room 200	Tan woven fibrous mesh with paint	ND	--	--
				White woven fibrous mesh	ND	--	--
				Off-white compacted fine powdery material	35	Damaged	35 ln. ft.
2-15-TSI-27	10/12/2021	White insulation with white pipe wrap	East side of room 200 by staircase entrance	Tan and white woven fibrous material with paint	ND	--	--
				White compacted fine powdery material	43	Damaged	35 ln. ft.
2-16-TSI-28	10/12/2021	White insulation with silver paint	Located throughout northeast side of room 200 on and around northeastern boiler by staircase entrance	Tan woven fibrous material with paint	ND	--	--
				White compacted fine powdery material	38	Damaged	Difficult to quantify (>200 sq. ft.)

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
2-16-TSI-29	10/12/2021	White insulation with silver paint	Located throughout northeast side of room 200 on and around northeastern boiler by staircase entrance	Tan and white woven fibrous material with paint	ND	--	--
				White compacted fine powdery material	46	Damaged	Difficult to quantify (>200 sq. ft.)
2-13-TSI-30	10/12/2021	White insulation with pipe wrap	Located throughout northeast side of room 200 on and around Boiler 2 by staircase entrance	Tan woven fibrous material with paint	ND	--	--
				White compacted fine powdery material	43	Damaged	3,000 ln. ft.
2-17-TSI-31	10/12/2021	Yellow insulation with white pipe wrap	North side of room 200, highest catwalk by Boiler 4	Off-white paper with woven fibers and metal foil	ND	--	--
				Yellow loose-fill fibrous material	ND	--	--
2-17-TSI-32	10/12/2021	Yellow insulation with white pipe wrap	Northwest corner of room 200, highest catwalk by Boiler 3	Off-white paper with woven fibers and metal foil	ND	--	--
				White flexible sheet vinyl	ND	--	--
				Yellow loose-fill fibrous material	ND	--	--
2-7-MISC-33	10/12/2021	Window glazing	Northwest corner of room 200, highest catwalk	Off-white brittle material with paint	3	Fair	4,030 ln. ft.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
Upper Mezzanine (Above Room 200)							
3-1-TSI-1	10/13/2021	White insulation with silver wrap	Highest catwalk in room 200 (below Room 302)	Beige woven fibrous material with paint	ND	--	--
				Pale gray compacted brittle material	ND	--	--
3-1-TSI-2	10/13/2021	White insulation with silver wrap	Highest catwalk in room 200 (below room 302)	Beige woven fibrous material with paint	ND	--	--
				White compacted fine powdery material	ND	--	--
3-2-TSI-3	10/13/2021	Fabric material with white insulation	Highest catwalk in room 200 (below room 302)	White woven fibrous mesh	ND	--	--
				White loose-fill fibrous material	ND	--	--
3-3-TSI-4	10/13/2021	Off-white insulation with pipe wrap	Motor part near west roof access in room 302	Tan woven fibrous mesh with paint	ND	--	--
				Off-white brittle crumbly material	ND	--	--
3-1-TSI-5	10/13/2021	White insulation with pipe wrap	Pipe near west roof access in room 302	White woven fibrous mesh with paint	ND	--	--
				Tan woven fibrous material with paint	ND	--	--
				White compacted crumbly powdery material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
3-2-TSI-6	10/13/2021	White insulation with pipe wrap	Pipe near west roof access in room 302	White woven fibrous mesh with paint	ND	--	--
				White loose-fill fibrous material	ND	--	--
Upper Mezzanine (Above Room 200)							
3-1-TSI-7	10/13/2021	White insulation with silver wrap	Vent near staircase to lower level in room 302	Tan woven fibrous mesh with paint	ND	--	--
				Off-white compacted crumbly powdery material	ND	--	--
				Blue and white flexible sheet vinyl	ND	--	--
3-4-TSI-8	10/13/2021	Tan fibrous insulation with pipe wrap	Pipe near motor in room 302	Off-white paper with woven fibers and metal foil	ND	--	--
				Tan loose-fill fibrous material	ND	--	--
3-1-TSI-9	10/13/2021	White insulation with silver wrap	Vent near staircase to lower level in room 302	Flaky silver paint	ND	--	--
				White woven fibrous material	ND	--	--
				White powdery material	ND	--	--
				White crumbly material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
3-3-TSI-10	10/13/2021	Off-white insulation with pipe wrap	Motor part near west roof access in room 302	Flaky silver paint	ND	--	--
				White woven fibrous material	ND	--	--
				White powdery material	ND	--	--
				Gray crumbly material	ND	--	--
3-8-MISC-11	10/14/2021	Window glazing	Window on west side of room 303	Off-white brittle putty material with debris	4	Fair	4,030 ln. ft.
3-8-MISC-12	10/14/2021	Window glazing	Window on west side of room 303	Off-white brittle putty material with debris	5	Fair	4,030 ln. ft.
Basement							
4-1-TSI-1	10/13/2021	White insulation with woven fibrous pipe wrap	By entrance to room 22 from room 21	Flaky silver paint	ND	--	--
				Yellow woven fibrous material	ND	--	--
				White crumbly material	45	Damaged	600 ln. ft.
4-2-TSI-2	10/13/2021	White insulation with pipe wrap	By entrance to room 22 from room 21	White fibrous felt with brown paint	ND	--	--
				White crumbly material	40	Damaged	1,200 ln. ft.
4-3-MISC-3	10/13/2021	Brown soundproofing wall pad	East wall in room 22	Yellow fibrous material	ND	--	--
4-3-MISC-4	10/13/2021	Brown soundproofing wall pad	North wall in room 22	Yellow fibrous material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-4-MISC-5	10/13/2021	Off-white laminate tabletop with clear adhesive	Northwest corner tabletop in room 22	Beige laminate	ND	--	--
				Brown fibrous material	ND	--	--
4-1-TSI-6	10/13/2021	White insulation with woven fibrous pipe wrap	Northeast corner of room 23	Flaky silver paint	ND	--	--
				White woven fibrous material	ND	--	--
				Brown woven fibrous material	ND	--	--
				White crumbly material	50	Damaged	600 ln. ft.
4-2-TSI-7	10/13/2021	White insulation with pipe wrap	Northeast corner of room 23	White woven fibrous material with paint	ND	--	--
				White crumbly material	47	Damaged	1,200 ln. ft.
4-5-TSI-8	10/13/2021	White insulation with wrap	Southeast corner of room 23	White woven fibrous material	ND	--	--
				White fibrous material	ND	--	--
4-5-TSI-9	10/13/2021	White insulation with wrap	Southeast corner of room 11 by entrance to Room 23	White woven fibrous material	ND	--	--
				White fibrous material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-1-TSI-10	10/13/2021	White insulation with woven fibrous pipe wrap	Southeast portion of room 11 by entrance to Room 23	White woven fibrous material with paint	ND	--	--
				Yellow woven fibrous material	ND	--	--
				White crumbly material	45	Damaged	600 ln. ft.
4-5-TSI-11	10/13/2021	White insulation with wrap	East portion of room 11 by spiral staircase	Brown crumbly material	ND	--	--
				White woven fibrous material	ND	--	--
				Yellow fibrous material	ND	--	--
4-6-TSI-12	10/13/2021	White insulation with silver painted wrap	East portion of room 11 north of spiral staircase	Brittle red/silver paint	ND	--	--
				White woven fibrous material with paint	ND	--	--
				White crumbly material	50	Damaged	40 ln. ft.
Basement							
4-5-TSI-13	10/13/2021	White insulation with wrap	East portion of room 11 north of spiral staircase	White woven fibrous material	ND	--	--
				Yellow fibrous material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-7-TSI-14	10/13/2021	Yellow insulation with painted pipe wrap	East portion of room 11 north of spiral staircase	White/silver paint	ND	--	--
				White woven fibrous material	ND	--	--
				Off-white woven fibrous material	ND	--	--
				Silver paint	ND	--	--
				Brown crumbly material with metal foil	ND	--	--
				Yellow foamy fibrous material	ND	--	--
4-7-TSI-15	10/13/2021	Yellow insulation with painted pipe wrap	East portion of room 11 north of spiral staircase	White mastic with red paint and metal foil	ND	--	--
				Brown fibrous material	ND	--	--
				Yellow fibrous material	ND	--	--
4-8-MISC-16	10/13/2021	Silver woven heat-resistant seal material on hatch interior	By control wheels and conveying systems in room 11	Charcoal gray fibrous material	90	Fair	80 ln. ft.
4-1-TSI-17	10/13/2021	White insulation with woven fibrous pipe wrap	Northeast portion of room 11 between northeast staircase and elevator	Flaky silver paint	ND	--	--
				White woven fibrous material	ND	--	--
				White crumbly material	50	Damaged	600 ln. ft.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-7-TSI-18	10/13/2021	Yellow insulation with painted pipe wrap	Northeast portion of room 11 between northeast staircase and elevator	Brown fibrous material with red paint and metal foil	ND	--	--
				Yellow foamy fibrous material	ND	--	--
4-7-TSI-19	10/13/2021	Yellow insulation with painted pipe wrap	Northeast portion of room 11 between northeast staircase and elevator	Soft white thin vinyl sheet with silver paint	ND	--	--
				Yellow fibrous material	ND	--	--
Basement							
4-2-TSI-20	10/13/2021	White insulation with pipe wrap	Northeast portion of room 11 near northeast staircase	White woven fibrous material with paint	ND	--	--
				White crumbly material	50	Damaged	1,200 ln. ft.
4-5-TSI-21	10/13/2021	White insulation with wrap	Northeast portion of room 11 near northeast staircase	White woven fibrous material with black fibrous banding	ND	--	--
				Yellow fibrous material	ND	--	--
4-2-TSI-22	10/13/2021	White insulation with pipe wrap	Northeast portion of room 11	White woven fibrous material with paint	ND	--	--
				White crumbly material	48	Damaged	1,200 ln. ft.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-9-TSI-23	10/13/2021	White insulation with white woven pipe wrap	Northeast portion of room 11	White woven fibrous material with paint	ND	--	--
				White crumbly material	50	Damaged	20 ln. ft.
4-8-MISC-24	10/13/2021	Silver woven heat-resistant seal material on hatch interior	By control wheels and conveying systems in room 11	Flaky silver paint	6	Fair	80 ln. ft.
				Gray/white fibrous felt	85	Fair	80 ln. ft.
4-2-TSI-25	10/13/2021	White insulation with pipe wrap	On west side of room 11 by staircase down	White woven fibrous material with paint	ND	--	--
				White crumbly material	48	Damaged	1,200 ln. ft.
4-5-TSI-26	10/13/2021	White insulation with wrap	On west side of room 11 by staircase down	White woven fibrous felt	ND	--	--
4-7-TSI-27	10/13/2021	Yellow insulation with painted pipe wrap	West portion of room 11 by staircase to Room 101	White fibrous material with paper and metal foil	ND	--	--
				Yellow fibrous material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
Basement							
4-7-TSI-28	10/13/2021	Yellow insulation with painted pipe wrap	West portion of room 11 by staircase to Room 101	White synthetic material	ND	--	--
				Yellow foamy fibrous material	ND	--	--
4-2-TSI-29	10/13/2021	White insulation with pipe wrap	Center of room 11	Thin silver paint over fibrous mesh	ND	--	--
				White powdery fibrous material with paint	40	Damaged	1,200 ln. ft.
4-8-MISC-30	10/13/2021	Silver woven heat-resistant seal material on hatch interior	By control wheels and conveying systems in room 11	White interwoven fibrous material with paint	80	Fair	80 ln. ft.
				Gray fibrous mesh	ND	--	--
4-2-TSI-31	10/13/2021	White insulation with pipe wrap	Center of room 11	Silver paint	ND	--	--
				White interwoven fibrous mesh	ND	--	--
				Light brown crumbly powdery fibrous material	ND	--	--
4-9-TSI-32	10/13/2021	White insulation with white woven pipe wrap	Northeast portion of room 11	Light gray crumbly powdery fibrous material with paint	ND	--	--
				Gray crumbly fibrous material	40	Damaged	20 ln. ft.

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-7-TSI-33	10/13/2021	Yellow insulation with painted pipe wrap	Center of room 11	Silver foil with fibrous mesh, paint and paper	ND	--	--
				Orange fibrous material	ND	--	--
4-10-MISC-34	10/13/2021	Gray brick mortar	East wall of room 18	Light gray brittle sandy material	ND	--	--
4-11-MISC-35	10/13/2021	Red brick	North wall of room 18	Red brick	ND	--	--
				Light gray cementitious material	ND	--	--
4-12-MISC-36	10/13/2021	White plastic waterproofing material with pale yellow adhesive	Under paper towel holder in room 19	White brittle fibrous material	ND	--	--
				White soft adhesive with paint and debris	ND	--	--
Basement							
4-13-MISC-37	10/13/2021	Window glazing	Window in room 19	White compacted powdery material	ND	--	--
				Gray crumbly material with paint	ND	--	--
4-14-MISC-38	10/13/2021	Black 12 x 12 in. linoleum floor tile with yellow adhesive	Bathroom floor in room 19	Black crumbly vinyl	ND	--	--
				Clear soft adhesive	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-15-MISC-39	10/13/2021	White 12 x 12 in. linoleum floor tile with yellow adhesive	Bathroom floor in room 19	White crumbly vinyl	ND	--	--
				Yellow brittle adhesive with debris and paint	ND	--	--
				Gray crumbly sandy material	ND	--	--
4-16-MISC-40	10/13/2021	Black base cove with tan adhesive	Bathroom floor in room 19	Black rubbery material	ND	--	--
				Tan soft mastic	ND	--	--
4-17-MISC-41	10/14/2021	Tan 1 x 2 in. square tile with brown adhesive	Northeast floor in front of door in room 17	Tan and white ceramic with debris	ND	--	--
				Off-white brittle material	ND	--	--
4-17-MISC-42	10/14/2021	Tan 1 x 2 in. square tile with brown adhesive	South center room 17 next to center dividing wall	Tan and white ceramic with debris	ND	--	--
				Off-white brittle material	ND	--	--
				Light brown brittle material with paint	6	Damaged	180 sq. ft.
4-18-MISC-43	10/14/2021	White drywall with gray cementitious wallboard	South wall of room 17	White brittle powdery material	ND	--	--
				Off-white brittle sandy material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
4-19-MISC-44	10/14/2021	Tan base cove with green adhesive	West wall in northwest corner of room 17	Off-white ceramic with white glaze and sandy debris	ND	--	--
				Brown crumbly material with paint	15	Fair	60 ln. ft.
4-18-MISC-45	10/14/2021	White drywall with gray cementitious wallboard	West wall in northwest corner of room 17	Light gray brittle powdery material	ND	--	--
				White chalky material with paper	ND	--	--
Subbasement							
No potential ACM present in sub basement.							
Exterior							
EXT-1-MISC-1	10/14/2021	Red brick	West exterior side of Room 101 north of double doors next to ash pit tower	Red brick	ND	--	--
EXT-2-MISC-2	10/14/2021	Gray brick mortar	West exterior side of Room 101 north of double doors next to ash pit tower	Gray cementitious sandy material	ND	--	--

Table 4-1
Summary of Asbestos Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lab Description	Bulk Asbestos (%)	Condition if Detected	Estimated Quantity if Detected
EXT-3-MISC-3	10/14/2021	Window glazing	West exterior side of Room 105 on the southwest corner of exterior	Clear soft/elastic material with debris	ND	--	--
EXT-1-MISC-4	10/14/2021	Red brick	East exterior side of Room 101 south of stairwell exit door and north of windows	Red brick	ND	--	--
EXT-2-MISC-5	10/14/2021	Gray brick mortar	East exterior side of Room 101 south of stairwell exit door and north of windows	Loose gray cementitious material	ND	--	--
EXT-3-MISC-6	10/14/2021	Window glazing	South window on exterior east wall of Room 101	Light gray soft/elastic material with debris	ND	--	--
EXT-4-MISC-7	10/14/2021	White brick caulking	North corner of east exterior wall of room 101 south of stairwell exit	Light gray soft/elastic material with debris	ND	--	--

NOTES:

Samples were analyzed consistent with polarized light microscopy, U.S. Environmental Protection Agency Method 600/R-93-116.
-- = not applicable.
% = percent.
in. = inch.
ln. ft. = linear feet.
ND = not detected.
sq. ft. = square feet.

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
First Floor						
1-1-PB-1	10/11/2021	Tan paint	West wall between room 106 doorway and stairway of room 102	0.108	--	--
1-1-PB-2	10/11/2021	Tan paint	West wall north of room 105 doorway	0.071	--	--
1-1-PB-3	10/11/2021	Tan paint	North double doors between room102 and 101	0.177	--	--
1-1-PB-4	10/11/2021	Tan paint	North double doors between room102 and 101	0.224	--	--
1-2-PB-5	10/11/2021	White paint	West wall next to window in room 107	1.830	--	120 sq. ft.
1-2-PB-6	10/11/2021	White paint	North wall of room 107	1.630	--	120 sq. ft.
1-3-PB-7	10/11/2021	Off-white paint	East wall of room 106T	ND	--	--
1-4-PB-8	10/11/2021	White paint	South wall east of window in room 104	0.181	0.27	--
1-4-PB-9	10/11/2021	White paint	West wall south of window in room 104	0.175	--	--
1-4-PB-10	10/11/2021	White paint	East side of north wall in room 105	0.211	--	--
1-5-PB-11	10/11/2021	Silver	South side of east wall on south boiler in room 101	ND	--	--
1-6-PB-12	10/11/2021	Green paint	Hydraulic drive on northwest side of south middle boiler in room 101	0.326	--	--
1-7-PB-13	10/11/2021	Red paint	Floor on south side of room in front of double door between room in room 101	0.188	0.24	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
1-8-PB-14	10/11/2021	Red paint	West metal support beam next to fire extinguisher in room 101	5.000	--	15 sq. ft.
First Floor						
1-9-PB-15	10/11/2021	White paint	West metal support beam above fire extinguisher in room 101	5.000	--	3,000 sq. ft.
1-10-PB-16	10/11/2021	Red paint	Steam pipe in southwest corner of room 101	0.616	--	--
1-11-PB-17	10/11/2021	Green paint	Mirror above sink in southwest corner of room 101	0.472	--	--
1-12-PB-18	10/11/2021	White paint	Southwest corner of room 101	0.013	--	--
1-13-PB-19	10/11/2021	Red paint	Pipe on west side of southwest boiler in room 101	0.092	--	--
1-14-PB-20	10/11/2021	Yellow paint	Northwest corner of southwest boiler in room 101	5.000	--	600 ln. ft.
1-15-PB-21	10/11/2021	Orange paint	West wall north of double door in room 101	2.360	--	30 ln. ft.
1-16-PB-22	10/11/2021	Brown paint	West wall north of double door in room 101	0.015	--	--
1-9-PB-23	10/11/2021	White paint	Metal support beam on west wall north of double door in room 101	5.000	--	3,000 sq. ft.
1-17-PB-24	10/11/2021	Bright orange paint	Steam pipe on west side of northwest boiler in room 101	0.121	--	--
1-18-PB-25	10/11/2021	Red paint	Brick on southwest corner of northwest boiler in room 101	ND	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
1-19-PB-26	10/11/2021	Gray paint	Support pole in northwest corner of room 101	0.111	--	--
1-20-PB-27	10/11/2021	Silver paint	Northwest support beam of northwest boiler in room 101	2.470	--	3,000 ln. ft.
1-20-PB-28	10/11/2021	Silver paint	Northeast support beam of northwest boiler in room 101	1.660	2.00	3,000 ln. ft.
1-14-PB-29	10/11/2021	Yellow paint	North pipe on the northwest corner of north middle boiler in room 101	5.000	--	600 ln. ft.
First Floor						
1-14-PB-30	10/11/2021	Yellow paint	North concrete bench west of north door in room 101	2.830	--	600 ln. ft.
1-21-PB-31	10/11/2021	Brown paint	Pipe on north wall between northeast and north middle boiler in room 101	3.520	--	70 ln. ft.
1-21-PB-32	10/11/2021	Brown paint	Pipe north of north middle boiler in room 101	1.208	--	70 ln. ft.
1-20-PB-33	10/11/2021	Silver paint	Support beam on northwest corner of northeast boiler in room 101	0.040	--	3,000 ln. ft.
1-5-PB-34	10/11/2021	Silver paint	North side of northeast boiler in room 101	ND	--	--
1-12-PB-35	10/11/2021	White paint	Northeast corner of room 101	ND	--	--
1-6-PB-36	10/11/2021	Green paint	East side of northeast boiler in room 101	0.503	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
1-14-PB-37	10/11/2021	Yellow paint	Pipe between southeast and south middle boiler in room 101	5.000	--	600 ln. ft.
1-6-PB-38	10/11/2021	Green paint	Green pipe on south end of south middle boiler in room 101	0.375	--	--
1-12-PB-39	10/11/2021	White paint	Southeast corner of room 101	0.068	--	--
1-22-PB-40	10/11/2021	Dark green paint	Green cabinet in the southeast corner of room 101	1.068	--	64 sq. ft.
1-23-PB-41	10/11/2021	Light gray paint	Light gray cabinet in southeast corner of room 101	0.048	--	--
Mezzanine						
2-1-PB-1	10/12/2021	White paint	Southeast corner of room in room 203	0.180	--	--
2-1-PB-2	10/12/2021	White paint	Northeast corner of room in room 204	0.043	--	--
2-2-PB-3	10/12/2021	Tan paint	Catwalk in room 200S outside of room 202	0.085	--	--
2-2-PB-4	10/12/2021	Tan paint	Catwalk in room 200S outside of room 201	0.219	--	--
2-3-PB-5	10/12/2021	Dark tan paint	Cabinet inside doorway in room 201	0.330	--	--
2-3-PB-6	10/12/2021	Dark tan paint	Cabinet on north wall in room 201	0.268	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
2-4-PB-7	10/12/2021	Yellow paint	Yellow pipe on first catwalk, west side of room 101	3.220	--	600 ln. ft.
2-4-PB-8	10/12/2021	Yellow paint	Yellow pipe on first catwalk, west side of room 101	4.940	--	600 ln. ft.
2-5-PB-9	10/12/2021	Light green paint	Light green pipe on first catwalk in center of room 101	0.242	--	--
2-5-PB-10	10/12/2021	Light green paint	Light green pipe on first catwalk in center of room 101	0.108	--	--
2-6-PB-11	10/12/2021	Silver paint	Silver pipe on first catwalk in center of room 101	ND	--	--
2-4-PB-12	10/12/2021	Yellow paint	Yellow pipe on first catwalk, east side of room 101	3.280	--	600 ln. ft.
Mezzanine						
2-7-PB-13	10/12/2021	Red paint	Red pipe on first catwalk, east side of room 101	1.980	--	750 ln. ft.
2-8-PB-14	10/12/2021	Reddish brown paint	Red pipe on first catwalk, east side of room 101	0.075	--	100 ln. ft.
2-9-PB-15	10/12/2021	Gray paint	Gray corrugated boiler siding on second catwalk, east side of room 101	ND	--	--
2-5-PB-16	10/12/2021	Light green paint	Light green pipe on second catwalk on east side of room 101	0.036	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
2-10-PB-17	10/12/2021	Gray paint	Gray railing on second catwalk on east side of room 200	0.007	--	--
2-11-PB-18	10/12/2021	Tan paint	Tan boiler part on second catwalk on east side of room 200	0.101	--	--
2-9-PB-19	10/12/2021	Gray paint	Gray boiler siding on second catwalk, east side of room 200	0.035	--	--
2-12-PB-20	10/12/2021	Gray paint	Gray door frame on second catwalk, east side of room 200	0.517	--	--
2-13-PB-21	10/12/2021	Red paint	Red pipe on west side of Boiler 4 in room 200	ND	--	--
2-11-PB-22	10/12/2021	Tan paint	Tan mechanical part in room 204	ND	--	--
2-14-PB-23	10/12/2021	Blue paint	Blue mechanical part in room 204	ND	--	--
2-7-PB-24	10/12/2021	Red paint	Red pipe	1.164	15.0	750 ln. ft.
2-8-PB-25	10/12/2021	Red paint	Red pipe on first catwalk, east side of room 101	ND	--	100 ln. ft.
Upper Mezzanine						
3-1-PB-1	10/13/2021	Red paint	Catwalk above coal hopper by staircase in room 301	0.136	--	--
3-1-PB-2	10/13/2021	Red paint	Catwalk above coal hopper by staircase in room 301	0.160	--	--
3-2-PB-3	10/13/2021	Gray paint	Catwalk above coal hopper by staircase in room 301	5.000	--	700 ln. ft.

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
3-2-PB-4	10/13/2021	Gray paint	Catwalk above coal hopper by staircase in room 301	5.000	--	700 ln. ft.
3-3-PB-5	10/13/2021	Brown paint	Catwalk above coal hopper by staircase in room 301	ND	--	--
3-3-PB-6	10/13/2021	Brown paint	Catwalk above coal hopper by staircase in room 301	ND	--	--
3-4-PB-7	10/13/2021	Silver paint	On equipment by east side door in room 302	ND	--	--
3-4-PB-8	10/13/2021	Silver paint	On equipment by east side door in room 302	ND	--	--
3-5-PB-9	10/13/2021	Red paint	By west side door in room 302	0.528	--	--
3-6-PB-10	10/13/2021	Tan paint	By west side door in room 302	0.531	--	--
3-6-PB-11	10/13/2021	Tan paint	By west side door in room 302	0.922	--	--
3-6-PB-12	10/13/2021	Tan paint	By staircase in room 302	0.920	0.063	--
3-7-PB-13	10/13/2021	Tan paint	East door in room 302	ND	--	--
3-7-PB-14	10/13/2021	Tan paint	West door in room 302	ND	--	--
3-8-PB-15	10/13/2021	Brown paint	Southeast corner of room 302	ND	--	--
3-9-PB-16	10/13/2021	Dark gray paint	Highest catwalk, southeast side of room 303M	ND	--	--
3-9-PB-17	10/13/2021	Dark gray paint	Highest catwalk, southeast side of room 303M	ND	--	--
3-10-PB-18	10/13/2021	Red paint	Downstairs below room 303M catwalk	0.095	--	--
3-11-PB-19	10/13/2021	Silver paint	Highest catwalk in room 200	ND	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
Basement						
4-1-PB-1	10/13/2021	Light green paint	East wall south of door between room 17 and 21	0.336	--	--
4-1-PB-2	10/13/2021	Light green paint	Paint chip on floor next to bathroom stall in room 17	0.237	--	--
4-2-PB-3	10/13/2021	Red paint	Pipe in southwest corner of room 21	ND	--	--
4-3-PB-4	10/13/2021	Red paint	Tank on north wall of room 21 east of entrance to room 11	1.346	2.30	145 ln. ft.
4-4-PB-5	10/13/2021	Silver paint	Silver pipe support on north ceiling of room 21	0.024	--	--
4-5-PB-6	10/13/2021	Gray paint	Cabinet in center of room 21 north of room 22	0.063	--	--
4-2-PB-7	10/13/2021	Red paint	Pipe in southwest corner of room 21	ND	--	--
4-6-PB-8	10/13/2021	Blue gray paint	Door frame to room 18	0.086	--	--
4-7-PB-9	10/13/2021	Silver paint	Tank in southeast corner of room 18	5.000	--	5 ln. ft.
4-8-PB-10	10/13/2021	Orange paint	Pipe underneath tank in southeast corner of room 18	5.000	--	10 ln. ft.
4-9-PB-11	10/13/2021	White paint	South side of stairway in room 18A	0.300	--	--
4-10-PB-12	10/13/2021	Gray paint	Pipe in west side of room 18A	0.085	--	--
4-11-PB-13	10/13/2021	Red paint	Red fire extinguisher marking paint on northwest corner of room 21	ND	--	--
4-12-PB-14	10/13/2021	Gray paint	Door to room 15	4.110	--	24 sq. ft.

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
4-13-PB-15	10/13/2021	Light tan paint	Paint under new paint on door to room 15	3.400	--	24 sq. ft.
4-14-PB-16	10/13/2021	Orange paint	Orange pipe on south wall of room 21 west of room 22	5.000	--	600 ln. ft.
Basement						
4-15-PB-17	10/13/2021	White paint	White paint on orange pipe on south wall of room 21 west of room 22	5.000	--	2 ln. ft.
4-16-PB-18	10/13/2021	Tan paint	East wall of room 22	ND	--	--
4-17-PB-19	10/13/2021	Yellow paint	Yellow caution paint above doorway to room 11	ND	--	--
4-3-PB-20	10/13/2021	Red paint	Red pipe in southwest corner of room 23	ND	--	145 ln. ft.
4-14-PB-21	10/13/2021	Orange paint	Orange pipe on east wall of room 23	3.700	--	600 ln. ft.
4-18-PB-22	10/13/2021	Yellow paint	Yellow pipe in northeast corner of room 23	0.305	--	--
4-19-PB-23	10/13/2021	Blue paint	Blue pipe in northeast corner of room 23	0.306	--	--
4-16-PB-24	10/13/2021	Tan paint	Tan paint on northwest corner of wall in room 23	ND	--	--
4-2-PB-25	10/13/2021	Red paint	Red pipe wrap on the south side of room 23	0.919	--	--
4-20-PB-26	10/13/2021	Green paint	Green equipment on south side of room 23	0.908	--	--
4-14-PB-27	10/13/2021	Orange paint	Orange pipe in southwest corner of room 11	3.320	--	600 ln. ft.
4-16-PB-28	10/13/2021	Tan paint	Support beam in southwest center of room 11	ND	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
4-21-PB-29	10/13/2021	White paint	White pipe wrap on west side of room 11 east of sun basement entrance	ND	--	--
Basement						
4-4-PB-30	10/13/2021	Silver paint	Silver support on west side of room 11 east of sun basement entrance	ND	--	--
4-22-PB-31	10/13/2021	Yellow paint	Yellow pipe on east side of room 11 east of door to sub basement	5.000	--	140 ln. ft.
4-23-PB-32	10/13/2021	Bright white paint	Support in northwest corner of room 11	5.000	0.22	280 ln. ft.
4-4-PB-33	10/13/2021	Silver paint	Silver painted equipment on west side of room 11 north of sub basement door	ND	--	--
4-23-PB-34	10/13/2021	White paint	Support on north side of room 11 east of active tank	0.146	--	264 ln. ft.
4-23-PB-35	10/13/2021	White paint	North side of room 11 south of active tank	5.000	--	280 ln. ft.
4-24-PB-36	10/13/2021	Green paint	North side of room 11 north of northwest boiler	0.241	0.80	100 ln. ft.
4-22-PB-37	10/13/2021	Yellow paint	North side of room 11 north of northwest boiler	3.670	--	140 ln. ft.
4-3-PB-38	10/13/2021	Red paint	Northwest corner of room 11	2.010	--	145 ln. ft
4-19-PB-39	10/13/2021	Blue paint	Northwest corner of room 11 south of window	0.084	--	--
4-24-PB-40	10/13/2021	Green paint	Northwest corner of room 11	ND	--	100 ln. ft.

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
4-25-PB-41	10/13/2021	Reddish brown paint	Drain pipe in northwest corner of room 11 west of active tank	ND	--	--
4-14-PB-42	10/13/2021	Orange paint	Orange pipe in northwest corner of room 11 west of active tank	5.000	--	600 ln. ft.
Basement						
4-3-PB-43	10/13/2021	Red paint	Red pipe on the north side of room 11 south of active tank	5.000	--	145 ln. ft
4-14-PB-44	10/13/2021	Orange paint	Northeast corner of room 11 west of exit doorway	2.430	--	600 ln. ft.
4-17-PB-45	10/13/2021	Yellow paint	Yellow concrete block In northeast corner of room 11 south of exit doorway	ND	--	--
4-24-PB-46	10/13/2021	Green paint	East side of room 11 east of northeast boiler	1.178	--	100 ln. ft.
4-4-PB-47	10/13/2021	Silver paint	Underside of lid on southwest face of northeast boiler in room 11	0.071	--	--
4-22-PB-48	10/13/2021	Yellow paint	Center of room 11 east of southwest boiler	4.380	--	140 ln. ft.
4-23-PB-49	10/13/2021	Bright white paint	Support in center of room 11 between the two north boilers	5.000	--	280 ln. ft.
4-14-PB-50	10/13/2021	Orange paint	Orange tank in center of room 11 between the two north boilers	1.223	15.0	600 ln. ft.

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
4-16-PB-51	10/13/2021	White paint	Support beam on south side of room 11 east of green air equipment	0.005	--	--
4-2-PB-52	10/13/2021	Red paint	Red wrapped pipe on south wall of room 11	ND	--	--
4-24-PB-53	10/13/2021	Green paint	Green pipe and equipment on south side of room 11 east of entrance to room 21	0.220	--	100 ln. ft.
Basement						
4-11-PB-54	10/13/2021	Red paint	Red fire extinguisher marking in southeast corner of room 11 north of spiral staircase	ND	--	--
4-14-PB-55	10/13/2021	Orange paint	Orange pipe wrap in southeast corner of room 11 north of spiral staircase	1.275	--	600 ln. ft.
4-26-PB-56	10/13/2021	Silver paint	Silver pipe wrap southeast corner of room 11	ND	--	--
4-14-PB-57	10/13/2021	Orange paint	Southeast corner of room 11 east of doorway	4.490	--	600 ln. ft.
4-24-PB-58	10/13/2021	Green paint	Southwest corner of room 11	0.084	--	100 ln. ft.
4-25-PB-59	10/13/2021	Reddish brown paint	Southeast corner of room 11 west of southeast boiler	0.069	--	--
4-1-PB-60	10/13/2021	Light green paint	Paint on south wall of room 17	0.014	--	--
4-1-PB-61	10/13/2021	Light green paint	Southwest corner of room 17	0.135	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
4-27-PB-62	10/13/2021	Tan paint	East side of center wall of room 17 next to mirror	0.008	--	--
Subbasement						
5-1-PB-1	10/14/2021	Yellow paint	West hall entrance of room B1	0.023	--	110 ln. ft.
5-1-PB-2	10/14/2021	Yellow paint	Center of hallway of room B1	ND	4.3	110 ln. ft.
5-1-PB-3	10/14/2021	Yellow paint	East end of hallway of room B1	2.080	--	110 ln. ft.
5-2-PB-4	10/14/2021	Orange paint	Center of room B3	1.012	--	5 ln. ft
5-3-PB-5	10/14/2021	Brown paint	East wall at end of hall of room B1	0.080	--	--
5-3-PB-6	10/14/2021	Brown paint	East end in the center of hall of room B1	ND	--	--
5-4-PB-7	10/14/2021	Reddish brown paint	Center of hallway of room B1	ND	--	--
Exterior						
EXT-1-PB-1	10/14/2021	Brownish red paint	Southwest support beam of ash pit outside of room 101	1.470	1.60	272 ln. ft.
EXT-1-PB-2	10/14/2021	Brownish red paint	Northeast support beam of ash pit outside of room 101	1.150	--	272 ln. ft.
EXT-2-PB-3	10/14/2021	Dark brown red paint	Vent on west exterior side of room 101 in between double doors	0.120	--	--
EXT-3-PB-4	10/14/2021	Tan paint	Double doors on west exterior side of room 101	0.058	--	--

Table 4-2
Summary of Lead-Based Paint Sample Results
College Avenue Steam Plant
Pullman, Washington

Sample Name	Sample Date	Material Description	Location Description	Lead Result—XRF (mg/cm^2)	Lead Result—Laboratory (%)	Estimated Quantity if Detected
EXT-4-PB-5	10/14/2021	Green paint	Railing on west exterior side of room 101 in front of double doors	0.173	--	--
EXT-5-PB-6	10/14/2021	Silver paint	Silver pipe on west exterior side of room 101 and south of double doors	1.213	--	25 ln. ft.
EXT-6-PB-7	10/14/2021	Blue gray paint	Blue gray pipe in corner of exterior side of room 101 and south of double doors	0.071	--	25 ln. ft.

NOTES:

Samples were analyzed consistent with U.S. Environmental Protection Agency Method 3051/7000B.

-- = not applicable.

% = percent (milligrams per kilogram/10000)

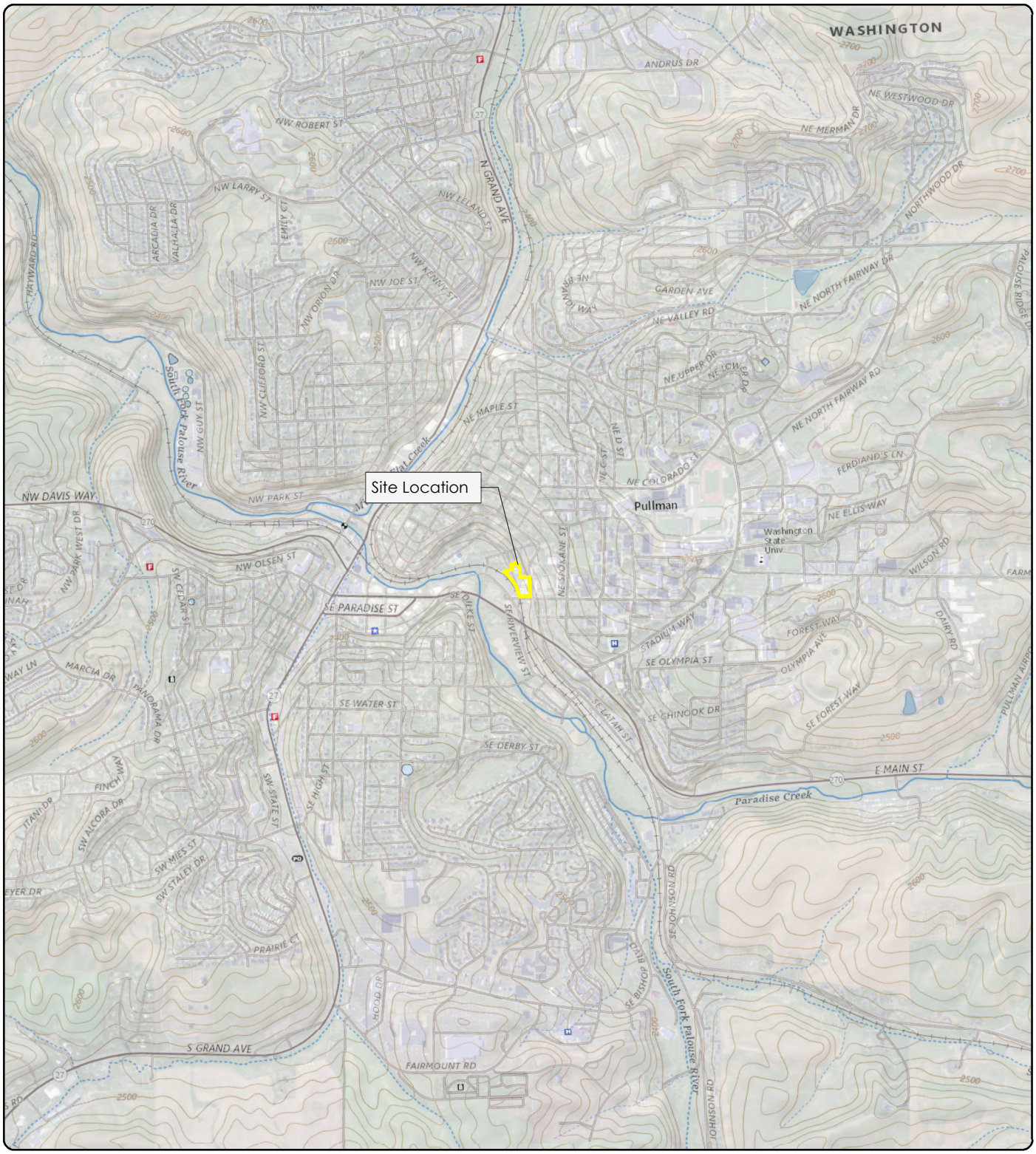
'ln. ft. = linear feet.

mg/cm^2 = milligrams per square centimeter.

ND = none detected.

XRF = X-ray fluorescence.

FIGURES



Source:
U.S. Geological Survey (2021) 7.5-minute topographic quadrangle: Pullman.
Township 14 North, Range 45 East, Section 5.

Legend

Site Boundary

Figure 1-1
Site Location

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

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0 1,000 2,000
Feet

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Reviewed By:
Produced By: jelstrott
Project: 0457.02

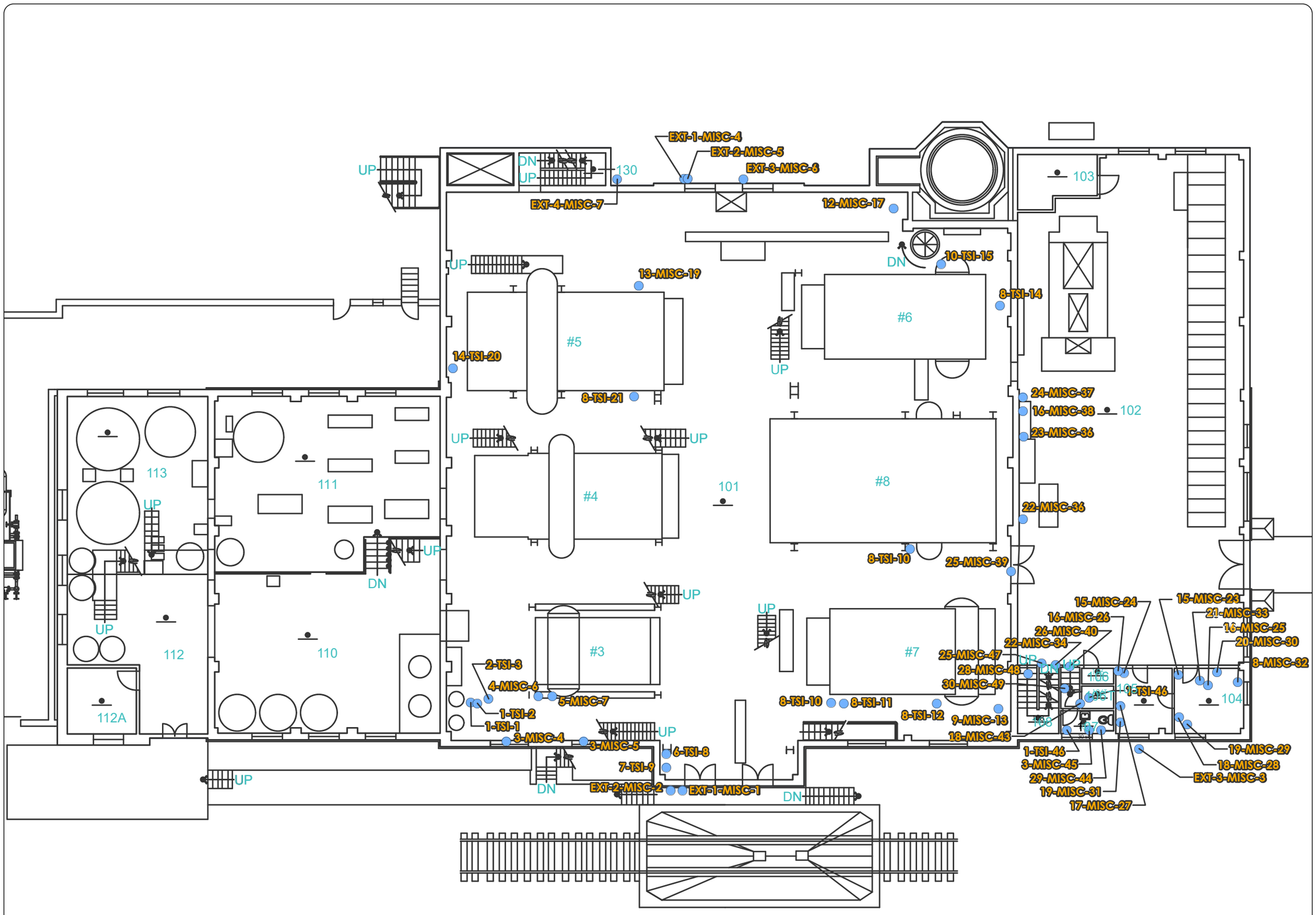

Figure 3-1
First Floor and Exterior Sampling Locations - Asbestos

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Asbestos

0 100 200
Feet

Source:
CAD data obtained from Washington State University.

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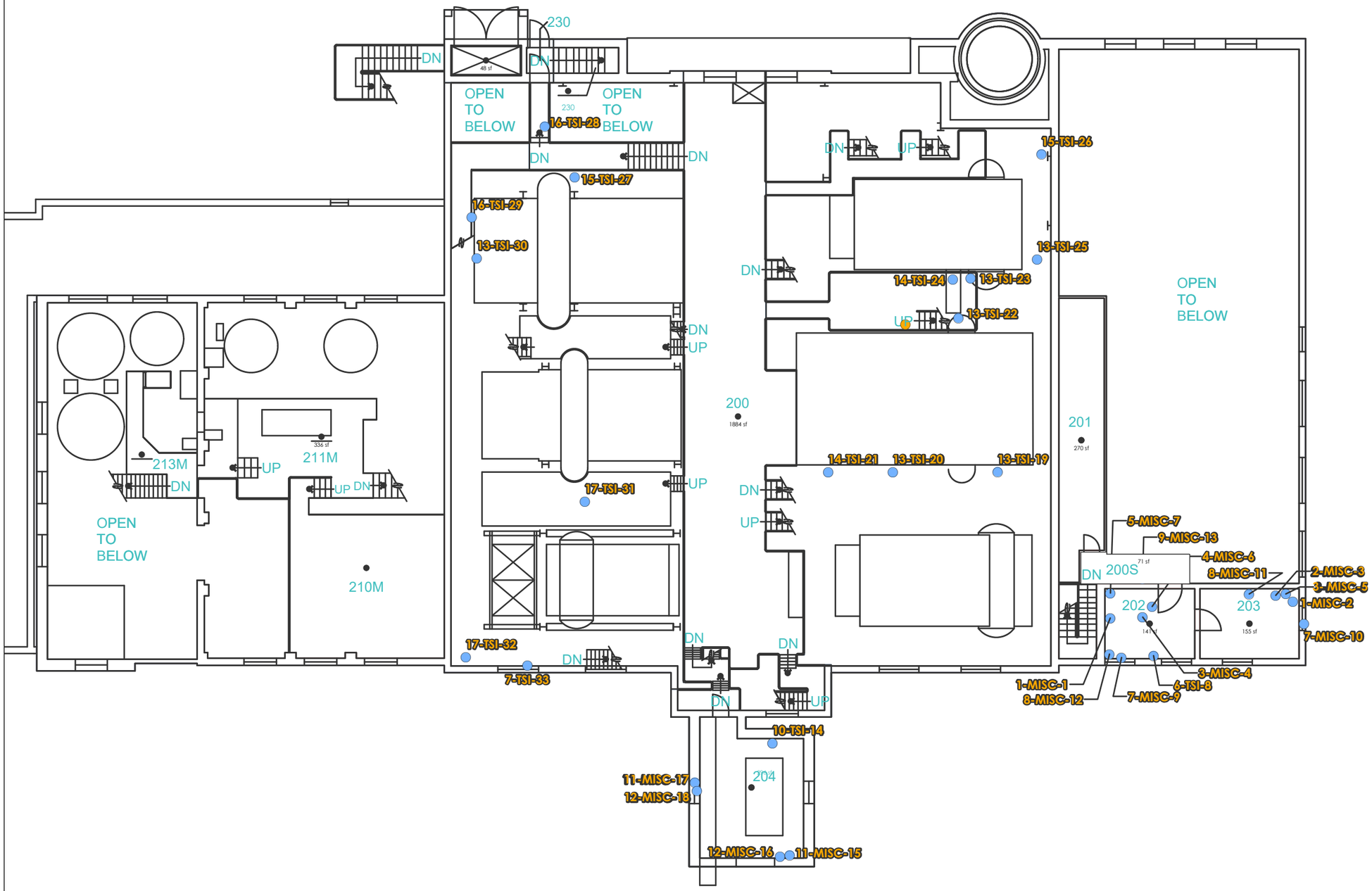

Figure 3-2
Mezzanine Sampling Locations - Asbestos

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Asbestos

0 100 200
Feet

Source:
CAD data obtained from Washington State University.

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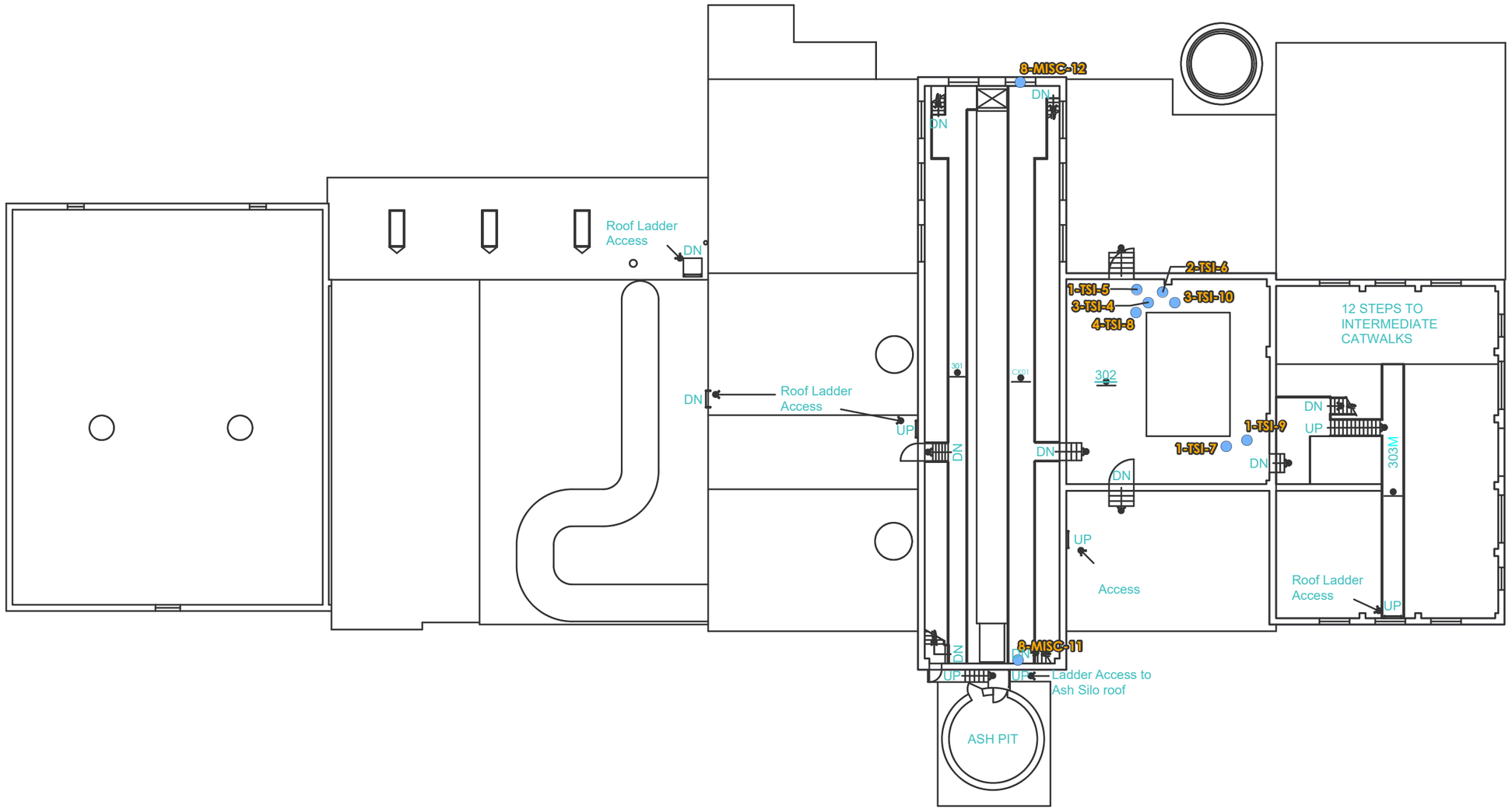

Figure 3-3
Upper Mezzanine Sampling Locations - Asbestos

College Avenue Steam Plant Port of Whitman County Pullman, Washington

Legend

- Asbestos

0 150 300
Feet

Source:
CAD data obtained from Washington State University.

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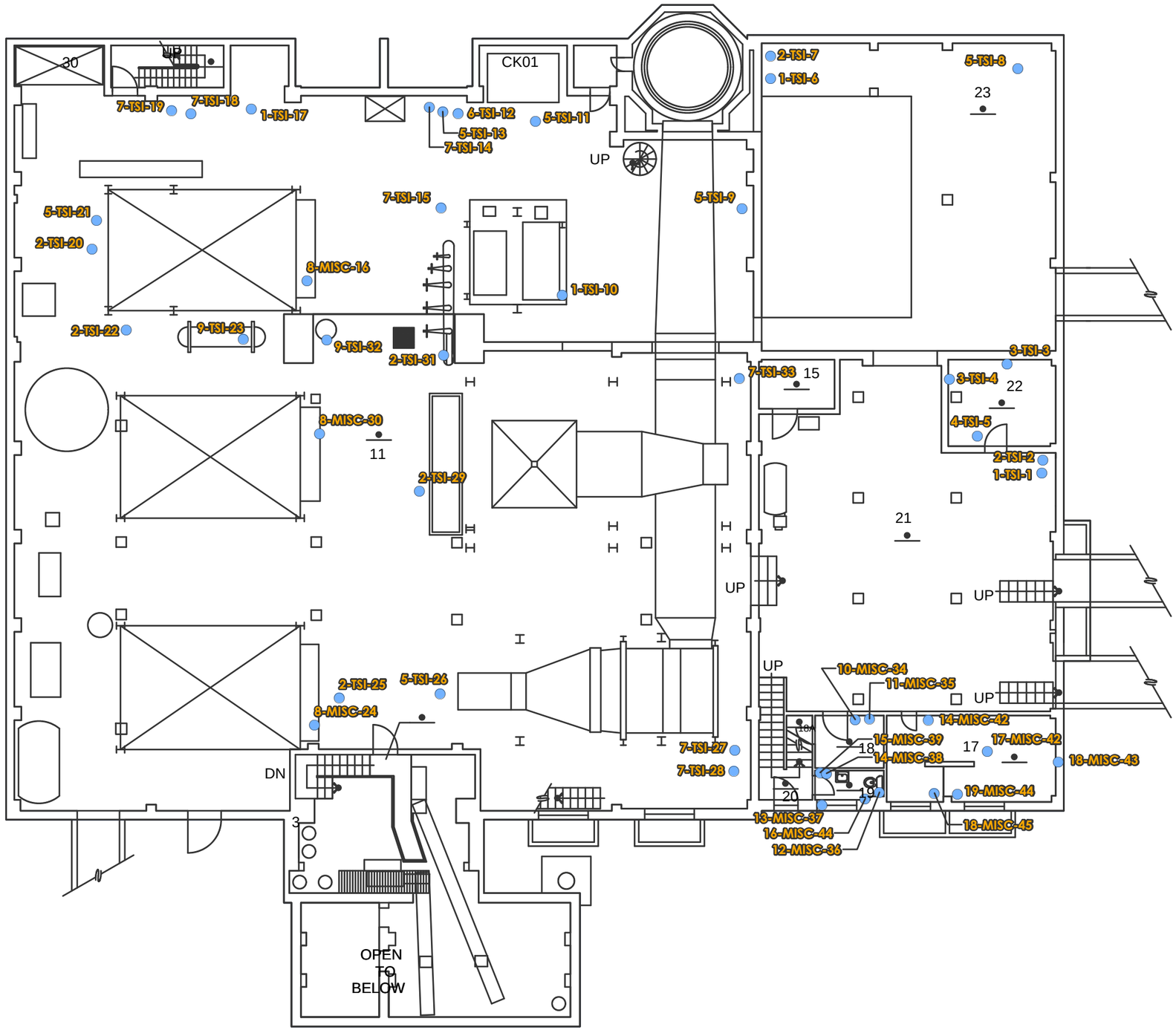
Figure 3-4
Basement Sampling Locations - Asbestos

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington



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- Asbestos

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Feet

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CAD data obtained from Washington State University.

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Produced By: mjosef
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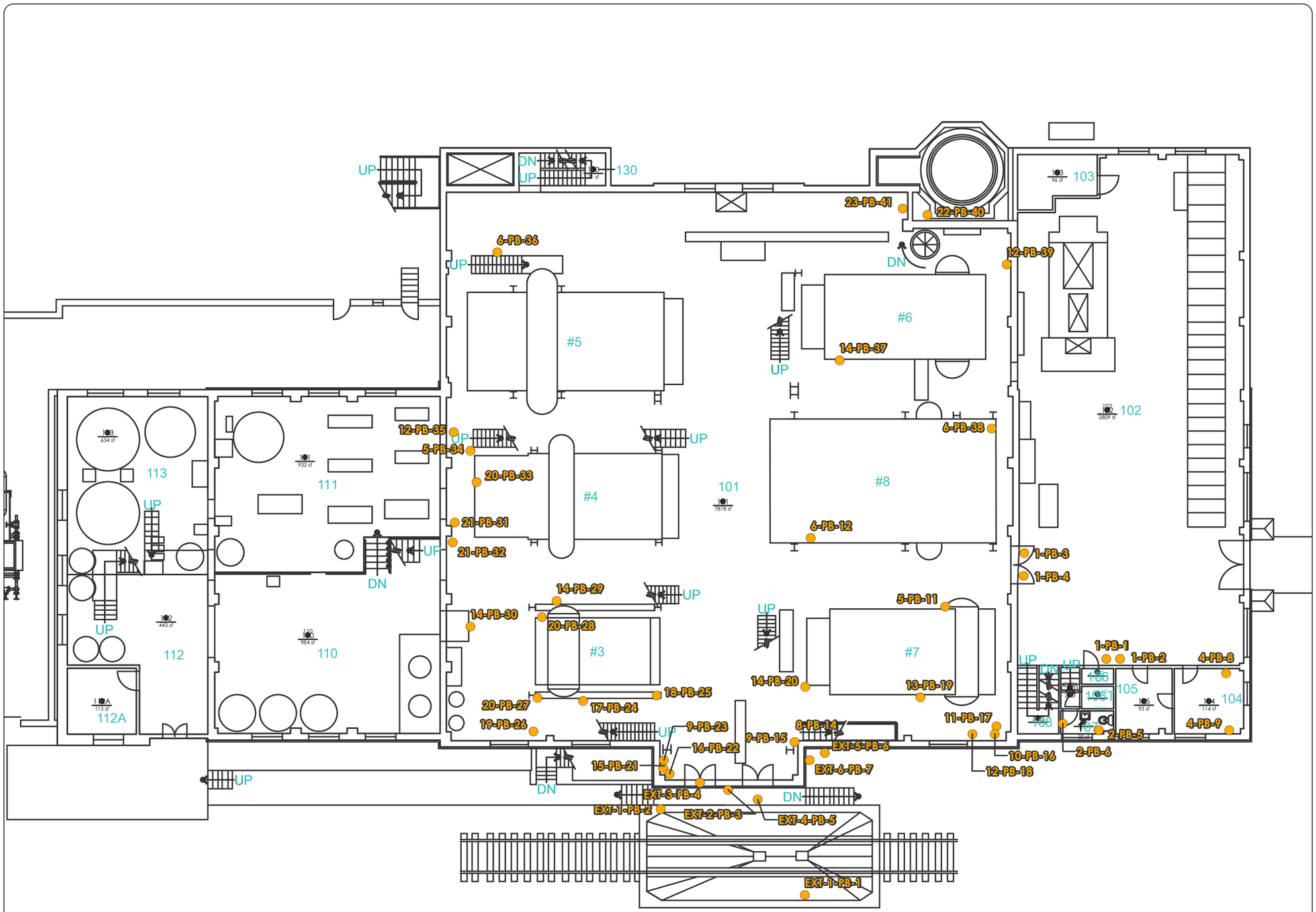
Figure 3-5
First Floor and Exterior Sampling Locations - Lead

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Lead



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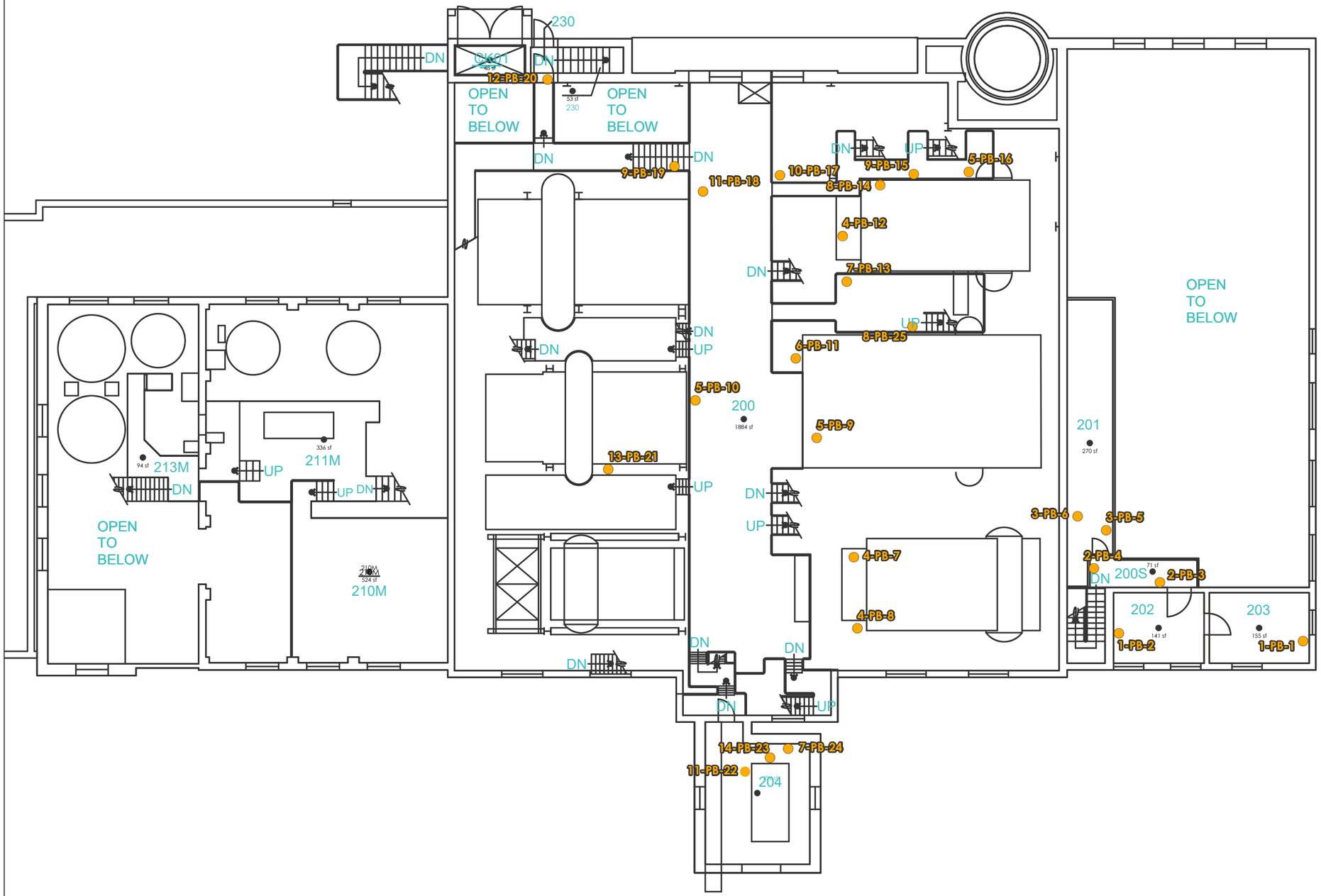

Figure 3-6
Mezzanine Sampling Locations - Lead

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Lead

0 100 200
Feet

Source:
CAD data obtained from Washington State University.

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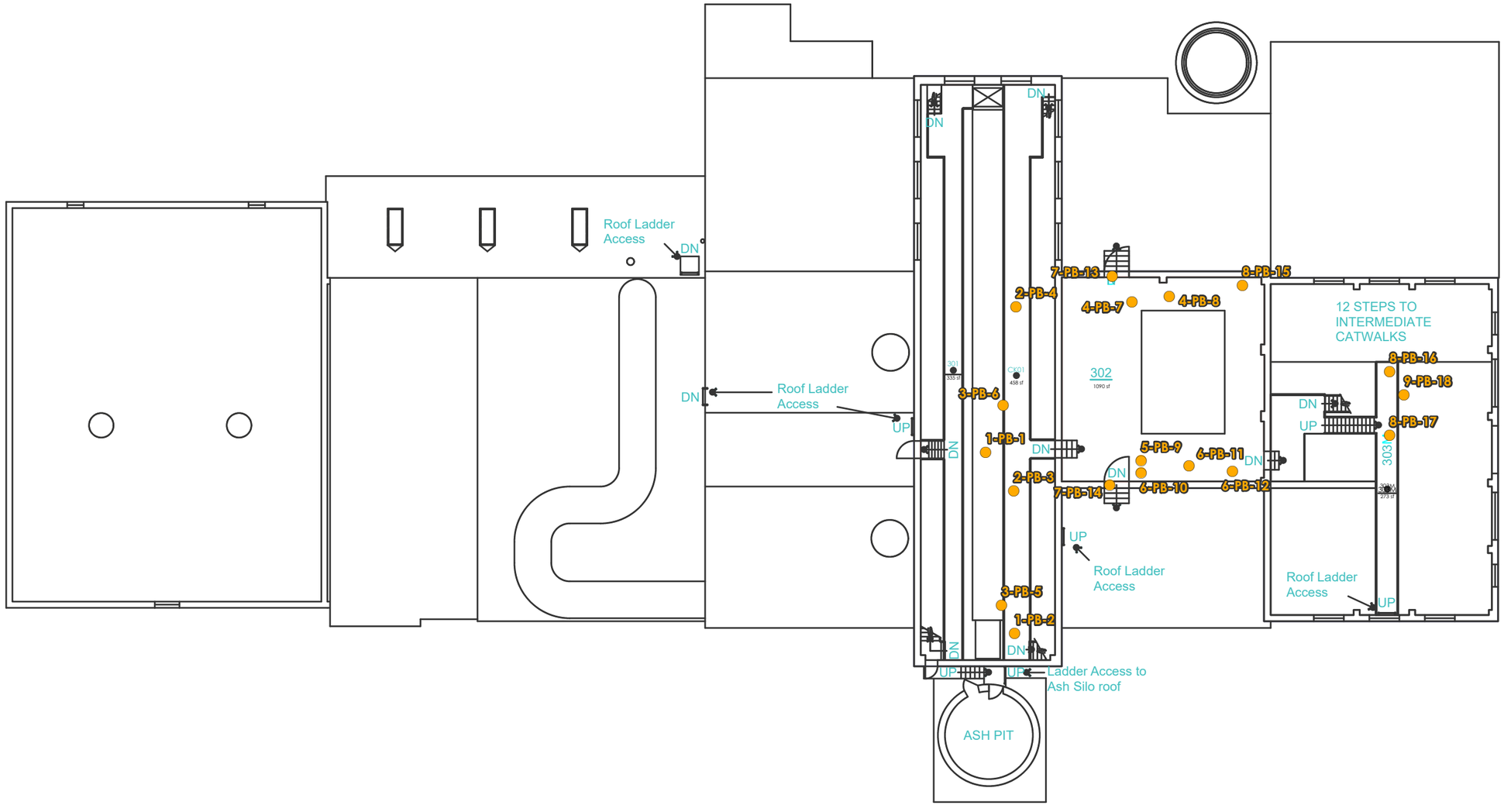
Figure 3-7
Upper Mezzanine Sampling Locations- Lead

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington



Legend

- Lead

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Feet

Source:
CAD data obtained from Washington State University.

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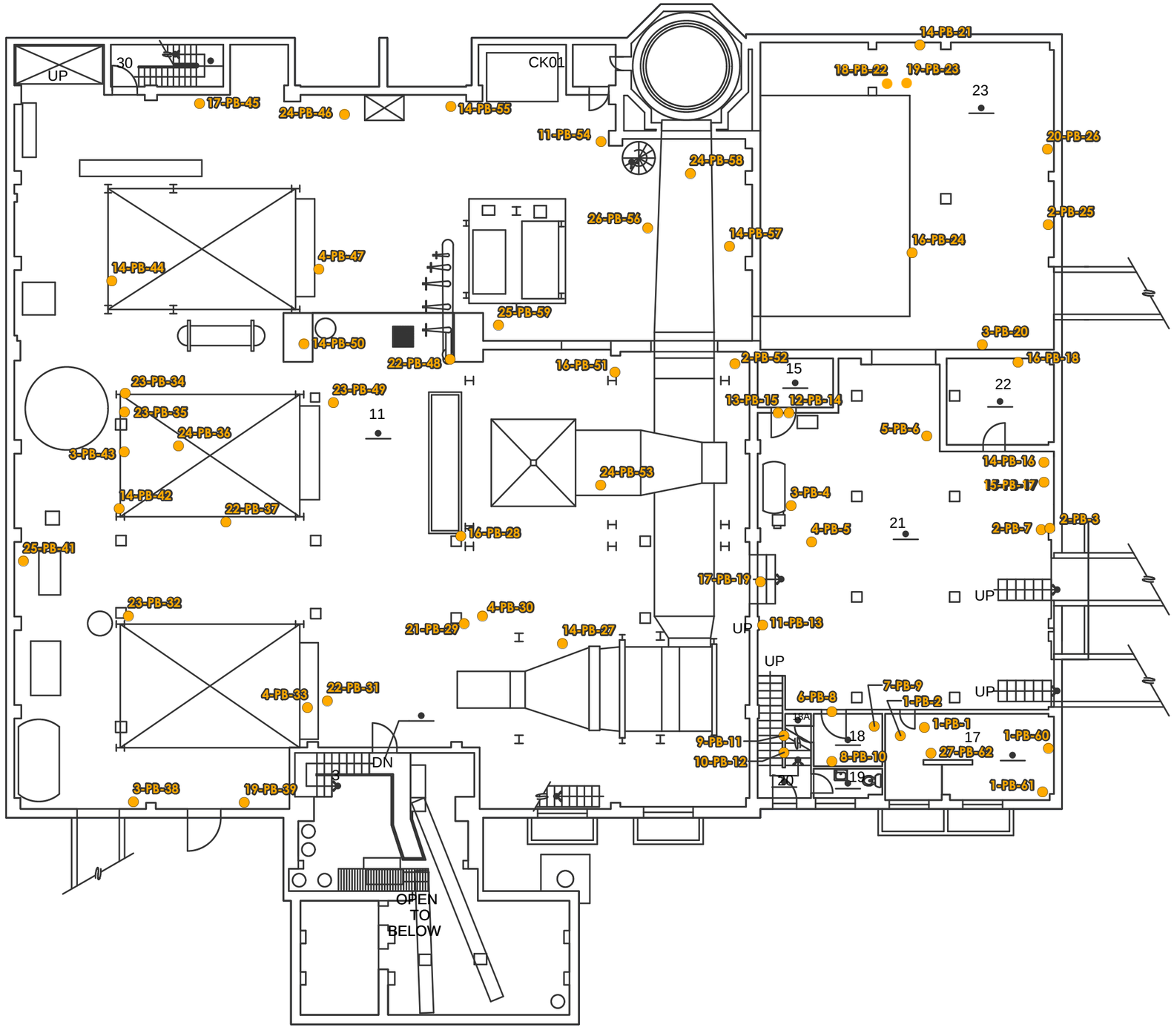

Figure 3-8
Basement Sampling Locations - Lead

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Lead

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Feet

Source:
CAD data obtained from Washington State University.

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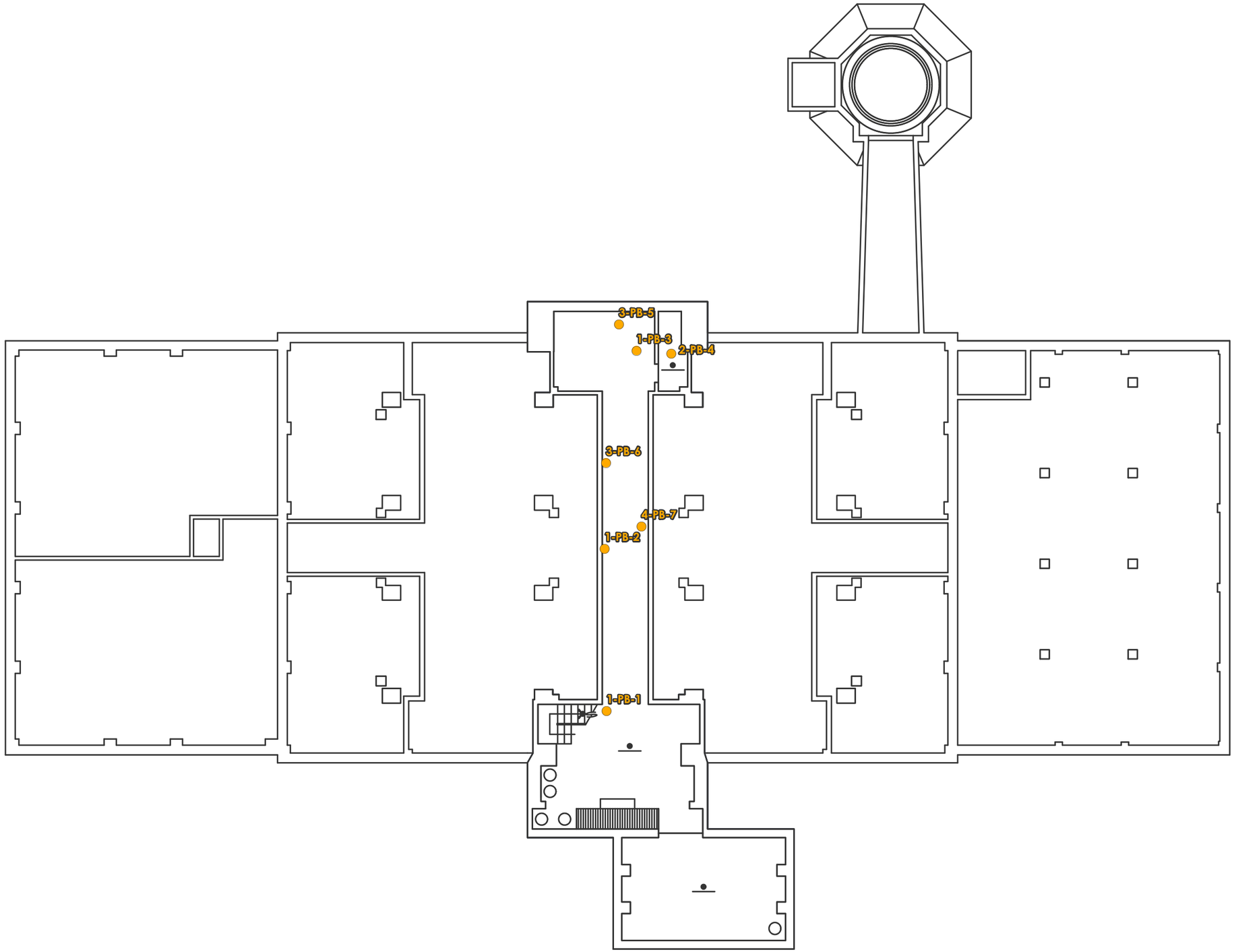

Figure 3-9
Subbasement Sampling Locations - Lead

College Avenue Steam Plant
Port of Whitman County
Pullman, Washington

Legend

- Lead

0 100 200
Feet

Source:
CAD data obtained from Washington State University.

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APPENDIX A

AHERA CERTIFICATES

THIS IS TO CERTIFY THAT

CONNOR ANDERSON

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR INITIAL COURSE

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 8/16/2021 - 8/18/2021

Course Location: Portland, OR

Certificate: IN-21-9554B

CCB #SRA0614 24-Hr Training

24-Hour AHERA Inspector Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 08/18/2022

For verification of the authenticity of this certificate contact:
PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, Oregon 97239
503.248.1939

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT

EMILY CURTIS

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR REFRESHER

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 01/21/2021

Course Location: Portland, OR

Certificate: IR-21-6100B

CCB #SRA0615 4-Hr Training

4-Hour AHERA Inspector Refresher Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 01/21/2022

For verification of the authenticity of this certificate contact:
PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, Oregon 97239
503.248.1939

Andy Fridley, Instructor

THIS IS TO CERTIFY THAT

SEAN MALONEY

HAS SUCCESSFULLY COMPLETED THE TRAINING COURSE

for

ASBESTOS INSPECTOR INITIAL COURSE

In accordance with TSCA Title II, Part 763, Subpart E, Appendix C of 40 CFR

Course Date: 12/16/2020 - 12/18/2020

Course Location: Portland, OR

Certificate: IN-20-8991B

CCB #SRA0614 24-Hr Training

24-Hour AHERA Inspector Training; AHERA is the Asbestos Hazard Emergency Response Act enacting Title II of Toxic Substance Control Act (TSCA)

Expiration Date: 12/18/2021

For verification of the authenticity of this certificate contact:
PBS Engineering and Environmental Inc.
4412 S Corbett Avenue
Portland, Oregon 97239
503.248.1939

Andy Fridley, Instructor

APPENDIX B

FIELD SAMPLING DATA SHEETS

HBM Survey

Project Name:	0457.02.03-01
Project Number:	Port of Whitman County
Date:	10/11/2021
Field Personnel:	Other
Sample Types:	Asbestos; Lead
Sample Areas:	First Floor

Samples

Sample ID:	**Sample Type:**	
1-1-TSI-1	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Condensate pipe in northwest corner of room.	
Sample Quantity:	38 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

1-1-TSI-1

Additional Sample Notes:	White pipe wrapping with yellow insulation.

Sample ID:	**Sample Type:**	
1-1-TSI-2	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Condensate pipe in northwest corner of room.	
Sample Quantity:	38 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

1-1-TSI-2

Additional Sample Notes:	White pipe wrapping with yellow insulation.

Sample ID:	**Sample Type:**
1-1-PB-1	PB
Sample Location:	**Detailed Sample Location:**
Room 102	West wall between room 106 doorway and stairway.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	0.108

Sample Photo:

1-1-PB-1

Additional Sample Notes:	

Sample ID:	Sample Type:
1-1-PB-2	PB
Sample Location:	**Detailed Sample Location:**
Room 102	West wall north of room 105 doorway.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	0.071

Sample Photo:

1-1-PB-2

Additional Sample Notes:	

Sample ID:	Sample Type:
1-1-PB-3	PB
Sample Location:	**Detailed Sample Location:**
Room 102	North double doors between room 102 and 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	0.177

Sample Photo:

1-1-PB-3

Additional Sample Notes:	

Sample ID:	Sample Type:
1-1-PB-4	PB
Sample Location:	**Detailed Sample Location:**
Room 102	North double door between room 102 and 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	0.224

Sample Photo:

1-1-PB-4

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-1-TSI-46	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 107	Pipe in northwest corner of room 107.	
Sample Quantity:	38 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged;Potential ACBM with potential for significant damage	Yes

Sample Photo:

1-1-TSI-46

Additional Sample Notes:	

Sample ID:	Sample Type:
1-2-PB-5	PB
Sample Location:	**Detailed Sample Location:**
Room 107	West wall next to window in room 107.
Sample Quantity:	120 square feet.
Sample Color:	**XRF:**
White	1.83

Sample Photo:

1-2-PB-5

Additional Sample Notes:	

Sample ID:	Sample Type:
1-2-PB-6	PB
Sample Location:	**Detailed Sample Location:**
Room 107	North wall of room 107.
Sample Quantity:	120 square feet.
Sample Color:	**XRF:**
White	1.63

Sample Photo:

1-2-PB-6

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-2-TSI-3	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Elbow on condensate pipe in northwest corner of room.	
Sample Quantity:	5 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

1-2-TSI-3

Additional Sample Notes:	White pipe covering with yellow insulation.

Sample ID:	**Sample Type:**	
1-3-MISC-4	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Window at northwest corner of room.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-3-MISC-4

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-3-MISC-5	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Window at west wall.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-3-MISC-5

Additional Sample Notes:	

Sample ID:	Sample Type:
1-3-PB-7	PB
Sample Location:	**Detailed Sample Location:**
Room 106T	East wall in room 106T.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Off-white	ND

Sample Photo:

1-3-PB-7

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-3-MISC-45	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 107	West wall window frame in room 107.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Potential ACBM with potential for damage	No

Sample Photo:

1-3-MISC-45

Additional Sample Notes:	

Sample ID:	Sample Type:
1-4-PB-8	PB
Sample Location:	**Detailed Sample Location:**
Room 104	South wall east of window in room 104.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	0.181

Sample Photo:

1-4-PB-8

Additional Sample Notes:	Submitted paint chip sample to laboratory for analysis.

Sample ID:	Sample Type:
1-4-PB-9	PB
Sample Location:	**Detailed Sample Location:**
Room 104	West wall south of window.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	0.175

Sample Photo:

1-4-PB-9

Additional Sample Notes:	

Sample ID:	Sample Type:
1-4-PB-10	PB
Sample Location:	**Detailed Sample Location:**
Room 105	East side of north wall.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	0.211

Sample Photo:

1-4-PB-10

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-4-MISC-6	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Above red brick on northwest corner of northwest boiler.	
Sample Quantity:	3.5 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-4-MISC-6

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-5-MISC-7	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Red brick on northwest corner of northwest boiler.	
Sample Quantity:	8 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Red brick.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-5-MISC-7

Additional Sample Notes:	

Sample ID:	Sample Type:
1-5-PB-11	PB
Sample Location:	**Detailed Sample Location:**
Room 101	South side of east wall on south boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

1-5-PB-11

Additional Sample Notes:	

Sample ID:	Sample Type:
1-5-PB-34	PB
Sample Location:	**Detailed Sample Location:**
Room 101	North side of northeast boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

1-5-PB-34

Additional Sample Notes:	Silver paint on various steam equipment in room 101.

Sample ID:	Sample Type:
1-6-PB-12	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Hydraulic Drive on northwest side of south middle boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Green	0.326

Sample Photo:

1-6-PB-12

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-6-TSI-8	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Red pipe by double doors on west side of room.	
Sample Quantity:	20 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

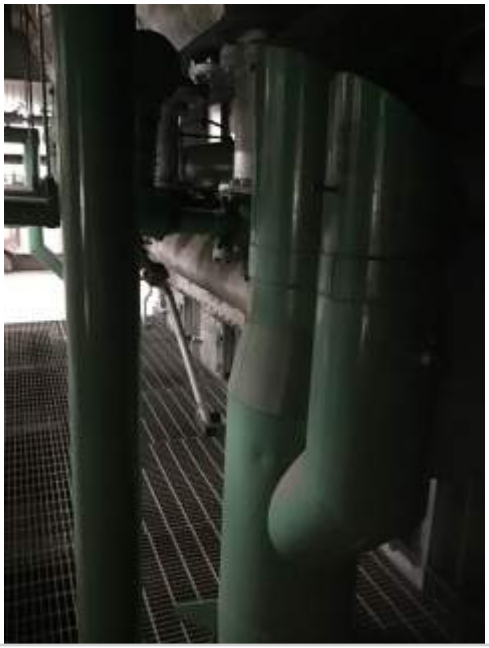
Sample Photo:

1-6-TSI-8

Additional Sample Notes:	Red pipe wrap with fibrous white insulation.

Sample ID:	**Sample Type:**
1-6-PB-38	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Green pipe on south end of south middle boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Green	0.375

Sample Photo:



1-6-PB-38

Additional Sample Notes:	

Sample ID:	Sample Type:
1-6-PB-36	PB
Sample Location:	**Detailed Sample Location:**
Room 101	East side of northeast boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Green	0.503

Sample Photo:

1-6-PB-36

Additional Sample Notes:	Green paint on various steam equipment in 101.

Sample ID:	Sample Type:	
1-7-TSI-9	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Silver pipe by double doors on west side of room.	
Sample Quantity:	30 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:

1-7-TSI-9

Additional Sample Notes:	Silver pipe wrap with yellow fibrous insulation

Sample ID:	**Sample Type:**
1-7-PB-13	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Floor on south side of room in front of double door between room 102 and 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	0.188

Sample Photo:

1-7-PB-13

Additional Sample Notes:	Submitted paint chip sample to laboratory for analysis.

Sample ID:	**Sample Type:**
1-8-PB-14	PB
Sample Location:	**Detailed Sample Location:**
Room 101	West metal support beam next to fire extinguisher.
Sample Quantity:	15 square feet
Sample Color:	**XRF:**
Red	5.00

Sample Photo:

1-8-PB-14

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-8-TSI-10	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Silver pipe on boiler by staircase to lower floor on west side of room.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:

1-8-TSI-10

Additional Sample Notes:	White fibrous insulation with various colors of pipe wrap covers (e.g., also includes red pipe in southwest corner of room that runs to north section of room). Difficult to quantify due to distribution and various wrap colors.

Sample ID:	**Sample Type:**	
1-8-TSI-11	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Silver pipe on boiler by staircase to lower floor on west side of room.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:

1-8-TSI-11

Additional Sample Notes:	White fibrous insulation with various colors of pipe wrap covers (e.g., also includes red pipe in southwest corner of room that runs to north section of room). Difficult to quantify due to distribution and various wrap colors.

Sample ID:	**Sample Type:**
1-8-TSI-12	TSI
Sample Location:	**Detailed Sample Location:**
Room 101	Silver insulation on boiler on southwest side of room.
Sample Quantity:	3,000 linear feet.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:

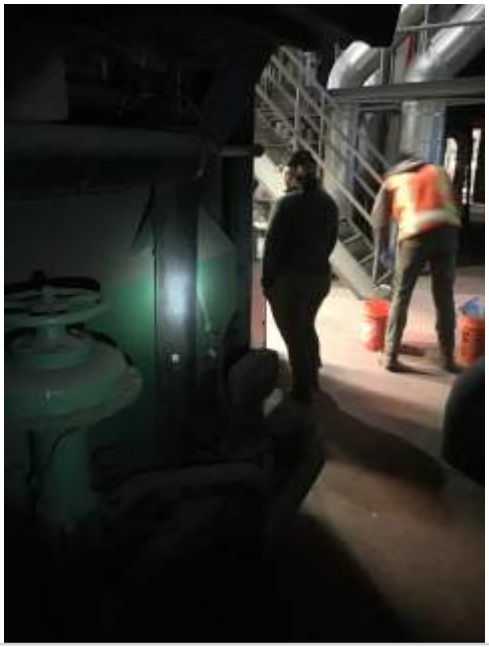
1-8-TSI-12

Additional Sample Notes:	White fibrous insulation with various colors of pipe wrap covers (e.g., also includes red pipe in southwest corner of room that runs to north section of room). Difficult to quantify due to distribution and various wrap colors.

Sample ID:	Sample Type:
1-8-TSI-21	TSI
Sample Location:	**Detailed Sample Location:**

Room 101	Dark gray pipe between boilers 4 and 5.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:



1-8-TSI-21

Additional Sample Notes:	Dark gray pipe wrap with white fibrous insulation. Insulation appears to be consistent with Homogenous Area 8. Difficult to quantify due to distribution and various wrap colors.

Sample ID:	Sample Type:	
1-8-TSI-14	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Orange pipe in southeast corner of room.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:

1-8-TSI-14

Additional Sample Notes:	White fibrous insulation with various colors of pipe wrap covers (e.g., also includes red pipe in southwest corner of room that runs to north section of room). Difficult to quantify due to distribution and various wrap colors.

Sample ID:	**Sample Type:**	
1-8-TSI-32	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 104	Southeast corner of room on white pipe.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

1-8-TSI-32

Additional Sample Notes:	White pipe wrap with yellow insulation.

Sample ID:	**Sample Type:**	
1-8-TSI-18	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	East side of room.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:

1-8-TSI-18

Additional Sample Notes:	Gray duct cover with white fibrous insulation. Insulation appears to be consistent with Homogenous Area 8. Difficult to quantify due to distribution and various wrap colors.

Sample ID:	**Sample Type:**	
1-9-MISC-13	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Sink on southwest side of room.	
Sample Quantity:	6 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Insulation on sink.	Potential ACBM with potential for damage	Yes

Sample Photo:	
	1-9-MISC-13
	

Additional Sample Notes:	Yellow fibrous insulation.

Sample ID:	**Sample Type:**
1-9-PB-15	PB
Sample Location:	**Detailed Sample Location:**
Room 101	West metal support beam above fire extinguisher.
Sample Quantity:	3,000 square feet.
Sample Color:	**XRF:**
White	5.00

Sample Photo:
 1-9-PB-15

Additional Sample Notes:	Difficult to quantify.

Sample ID:	**Sample Type:**
1-9-PB-23	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Metal support beam on west wall north of double door.
Sample Quantity:	3,000 square feet.
Sample Color:	**XRF:**
White	5.00

Sample Photo:

1-9-PB-23

Additional Sample Notes:	Difficult to quantify.

Sample ID:	**Sample Type:**
1-10-PB-16	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Steam pipe in southwest corner of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	0.616

Sample Photo:

1-10-PB-16

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-10-TSI-15	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Southeast corner of room on corrugated boiler.	
Sample Quantity:	2 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cementitious material	Damaged or significantly damaged	Yes

Sample Photo:

1-10-TSI-15

Additional Sample Notes:	Gray insulation and fabric.

Sample ID:	**Sample Type:**	
1-11-MISC-16	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Southeast corner of room on corrugated boiler wall.	
Sample Quantity:	2 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan soundproofing material.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-11-MISC-16

Additional Sample Notes:	Soundproofing material.

Sample ID:	**Sample Type:**
1-11-PB-17	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Mirror above sink in southwest corner of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Green	0.472

Sample Photo:

1-11-PB-17

Additional Sample Notes:	

Sample ID:	Sample Type:
1-12-PB-18	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Southwest corner of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	0.013

Sample Photo:

1-12-PB-18

Additional Sample Notes:	

Sample ID:	Sample Type:
1-12-PB-35	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Northeast corner of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	ND

Sample Photo:

1-12-PB-35

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-12-MISC-17	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Green cabinet in southeast corner of room.	
Sample Quantity:	Less than 5 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray fibrous material.	Damaged or significantly damaged friable miscellaneous ACM	Yes

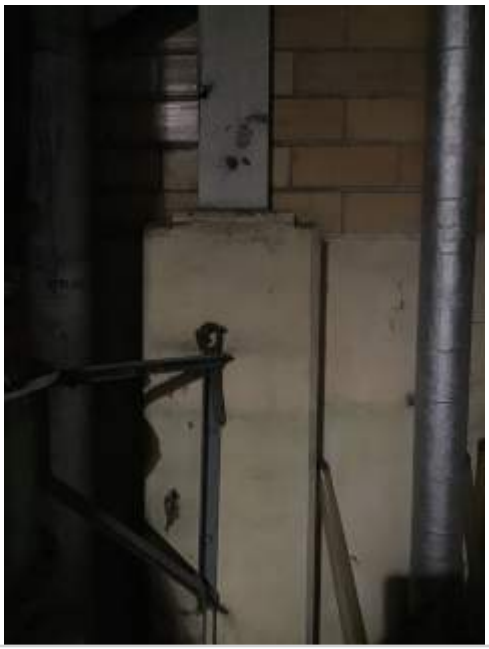
Sample Photo:

1-12-MISC-17

Additional Sample Notes:	Gray fibrous material.

Sample ID:	Sample Type:
1-12-PB-39	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Southeast corner of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	0.068

Sample Photo:



1-12-PB-39

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-13-MISC-19	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Soundproofing material on boiler in northeast corner of room.	
Sample Quantity:	15 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray and tan soundproofing material wrap.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-13-MISC-19

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-13-MISC-22	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Fabric material on southeast boiler by double doors on south end of room.	
Sample Quantity:	15 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray fabric material.	Potential ACBM with potential for damage	Yes

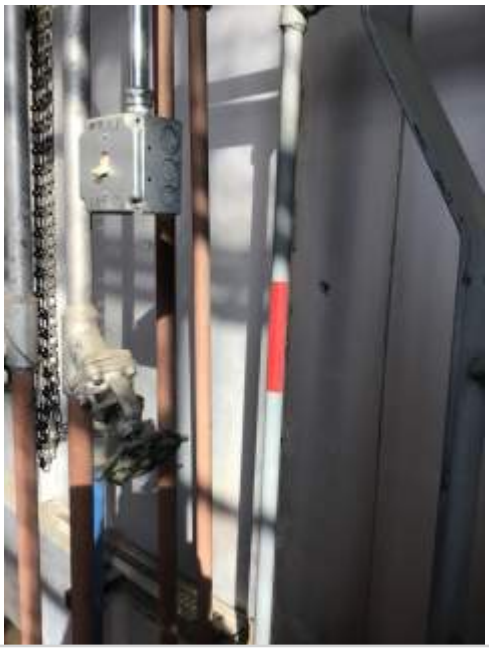
Sample Photo:

1-13-MISC-22

Additional Sample Notes:	

Sample ID:	Sample Type:
1-13-PB-19	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Pipe on west side of southwest boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	0.092

Sample Photo:



1-13-PB-19

Additional Sample Notes:	

Sample ID:	Sample Type:
1-14-PB-20	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Northwest corner of southwest boiler.
Sample Quantity:	600 linear feet
Sample Color:	**XRF:**
Yellow	5.00

Sample Photo:

1-14-PB-20

Additional Sample Notes:	

Sample ID:	Sample Type:
1-14-PB-29	PB
Sample Location:	**Detailed Sample Location:**
Room 101	North pipe on the northwest corner of north middle boiler.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Yellow	5.00

Sample Photo:

1-14-PB-29

Additional Sample Notes:	

Sample ID:	Sample Type:
1-14-PB-30	PB
Sample Location:	**Detailed Sample Location:**
Room 101	North concrete bench west of north door.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Yellow	2.83

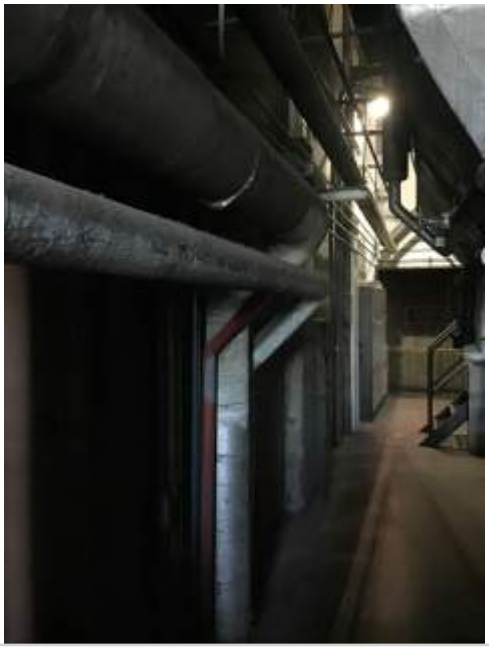
Sample Photo:

1-14-PB-30

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-14-TSI-20	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	White patch on pipe in north portion of room.	
Sample Quantity:	5 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:



1-14-TSI-20

Additional Sample Notes:	White patch on silver pipe with white fibrous insulation.

Sample ID:	**Sample Type:**
1-14-PB-37	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Pipe between southeast and south middle boiler.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Yellow	5.00

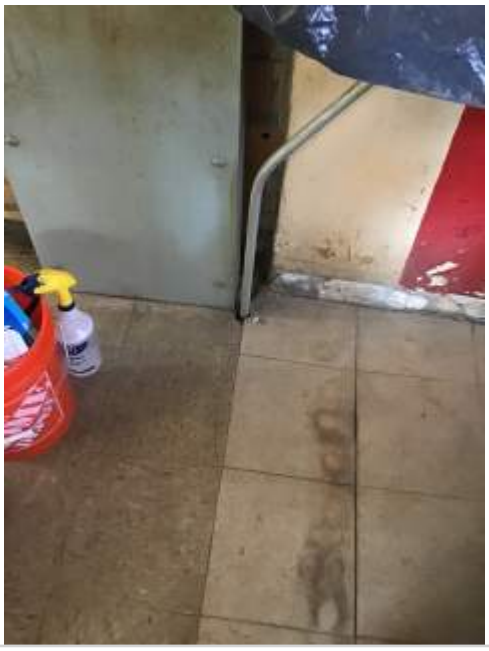
Sample Photo:

1-14-PB-37

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-15-MISC-38	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 102	North wall west of single doorway in room 102.	
Sample Quantity:	3,000 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan 12" x 12" vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:

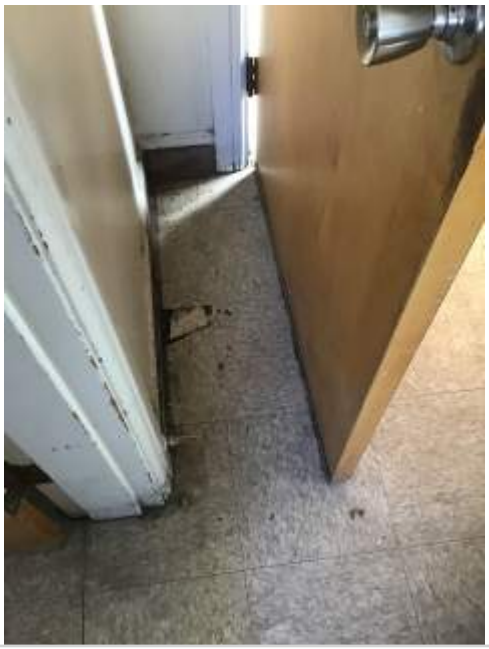


1-15-MISC-38

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-15-MISC-23	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 104	Northeast corner of room.	
Sample Quantity:	3,000 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan 12" x 12" vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:



1-15-MISC-23

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-15-MISC-24	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 105	Northeast corner of room.	
Sample Quantity:	3,000 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan 12" x 12" vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-15-MISC-24

Additional Sample Notes:	

Sample ID:	Sample Type:
1-15-PB-21	PB
Sample Location:	**Detailed Sample Location:**
Room 101	West wall north of double door.
Sample Quantity:	30 linear feet
Sample Color:	**XRF:**
Orange	2.36

Sample Photo:

1-15-PB-21

Additional Sample Notes:	

Sample ID:	Sample Type:
1-16-PB-22	PB
Sample Location:	**Detailed Sample Location:**
Room 101	West wall north of double door.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Brown	0.015

Sample Photo:

1-16-PB-22

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-16-MISC-25	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 104	East wall of room.	
Sample Quantity:	80 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Brown cove base with brown mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-16-MISC-25

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-16-MISC-26	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 104	East wall of room.	
Sample Quantity:	80 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Brown cove base with brown mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-16-MISC-26

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-17-MISC-27	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 105	North wall of room.	
Sample Quantity:	650 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Light gray wallboard.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-17-MISC-27

Additional Sample Notes:	

Sample ID:	Sample Type:
1-17-PB-24	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Steam pipe on west side or northwest boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Bright orange	0.121

Sample Photo:

1-17-PB-24

Additional Sample Notes:	

Sample ID:	Sample Type:
1-18-PB-25	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Brick on southwest corner of northwest boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	ND

Sample Photo:

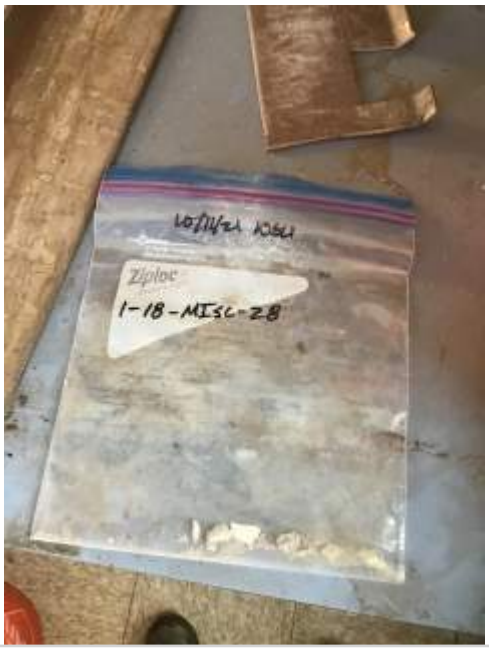
1-18-PB-25

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-18-MISC-28	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 104	North wall of room in light switch casing.	
Sample Quantity:	785 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Light gray cementitious wallboard.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-18-MISC-28



Additional Sample Notes:	

Sample ID:	Sample Type:	
1-18-MISC-43	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 106T	West wall by door in room 106T.	
Sample Quantity:	785 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White drywall with cementitious wallboard.	Damaged or significantly damaged friable miscellaneous ACM	Yes

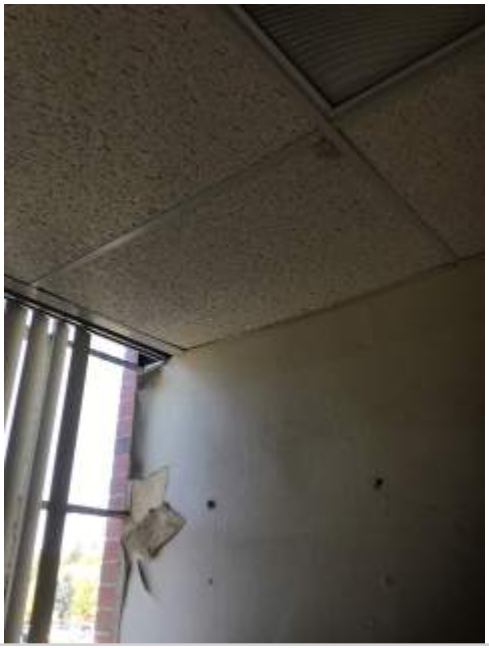
Sample Photo:

1-18-MISC-43

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-19-MISC-29	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 104	Northwest corner of room above light switch.	
Sample Quantity:	180 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White 18" x 36" ceiling tile with randomized stipple pattern.	Potential ACBM with potential for damage	Yes

Sample Photo:



1-19-MISC-29

Additional Sample Notes:	

Sample ID:	Sample Type:
1-19-PB-26	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Support pole in northwest corner of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Gray	0.111

Sample Photo:

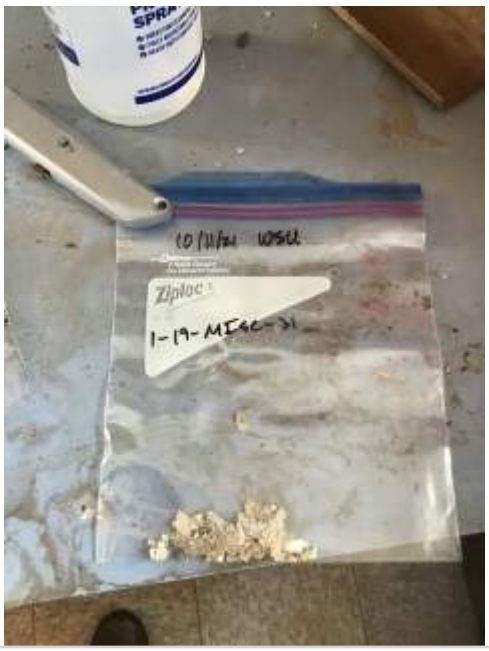
1-19-PB-26

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-19-MISC-31	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 105	Northwest corner of room.	
Sample Quantity:	180 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White 18" x 36" ceiling tile with randomized stipple pattern.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-19-MISC-31



Additional Sample Notes:	

Sample ID:	Sample Type:
1-20-PB-27	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Northwest support beam of northwest boiler.
Sample Quantity:	3,000 linear feet.
Sample Color:	**XRF:**
Silver	2.47

Sample Photo:

1-20-PB-27

Additional Sample Notes:	Quantity difficult to estimate.

Sample ID:	Sample Type:
1-20-PB-28	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Northeast support beam of northwest boiler.
Sample Quantity:	3,000 linear feet.
Sample Color:	**XRF:**
Silver	1.66

Sample Photo:

1-20-PB-28

Additional Sample Notes:	Quantity difficult to estimate. Submitted paint chip sample to laboratory for analysis.

Sample ID:	**Sample Type:**	
1-20-MISC-30	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 104	Southeast corner above cabinet.	
Sample Quantity:	20 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White 18" x 36" ceiling tile with uniform stipple pattern.	Potential ACBM with potential for damage	Yes

Sample Photo:

1-20-MISC-30

Additional Sample Notes:	

Sample ID:	Sample Type:
1-20-PB-33	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Support beam on northwest corner of northeast boiler.
Sample Quantity:	3,000 linear feet.
Sample Color:	**XRF:**
Silver	0.040

Sample Photo:

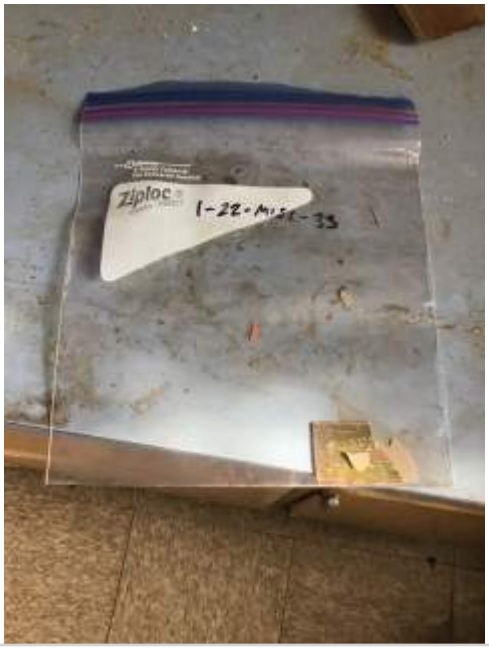
1-20-PB-33

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-21-MISC-33	MISC	
Sample Location:	**Detailed Sample Location:**	
104	Gray blue counter top on east side of room.	
Sample Quantity:	12 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray blue laminate countertop with black and green mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-21-MISC-33



Additional Sample Notes:	

Sample ID:	Sample Type:
1-21-PB-31	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Pipe on north wall between northeast and north middle boiler.
Sample Quantity:	70 linear feet.
Sample Color:	**XRF:**
Brown	3.52

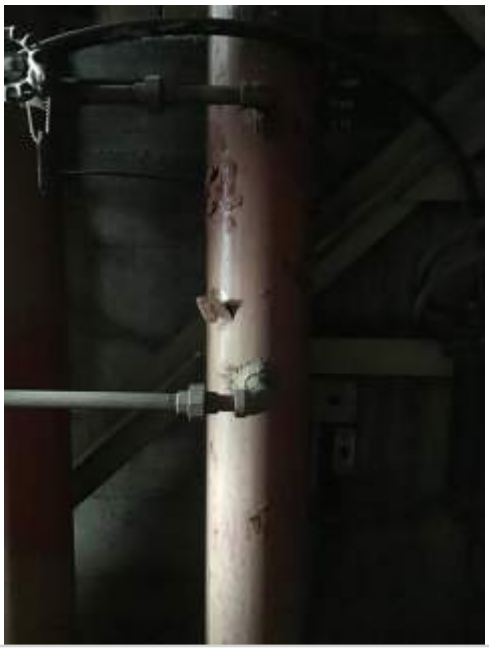
Sample Photo:

1-21-PB-31

Additional Sample Notes:	

Sample ID:	Sample Type:
1-21-PB-32	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Pipe north of north middle boiler.
Sample Quantity:	70 linear feet.
Sample Color:	**XRF:**
Brown	1.208

Sample Photo:



1-21-PB-32

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-22-MISC-34	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 102	Northwest corner of room by stairs.	
Sample Quantity:	240 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Dark brown cove base with brown mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-22-MISC-34

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-22-MISC-35	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 102	North wall east of double door.	
Sample Quantity:	240 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Dark brown cove base with brown mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-22-MISC-35

Additional Sample Notes:	

Sample ID:	Sample Type:
1-22-PB-40	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Green cabinet in the southeast corner.
Sample Quantity:	64 square feet.
Sample Color:	**XRF:**
Dark green	1.068

Sample Photo:

1-22-PB-40

Additional Sample Notes:	

Sample ID:	Sample Type:
1-23-PB-41	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Light gray cabinet in southeast corner of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Light gray	0.048

Sample Photo:

1-23-PB-41

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-23-MISC-36	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 102	North wall, west of transformer box and east of the double doors.	
Sample Quantity:	Less than 5 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray cementitious patching material.	Potential ACBM with potential for damage	No

Sample Photo:

1-23-MISC-36

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-24-MISC-37	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 102	North wall west of single doorway.	
Sample Quantity:	77.5 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Light gray 12" x 12" vinyl floor tile with gray mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-24-MISC-37

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-25-MISC-39	MISC	
Sample Location:	**Detailed Sample Location:**	
Rooms 102 and 101.	Double doorway between room 102 and 101.	
Sample Quantity:	11 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Black transition strip with brown mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-25-MISC-39

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-25-MISC-47	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 102	West stairway moving down in room 102.	
Sample Quantity:	11 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Black transition strip with brown mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-25-MISC-47

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-26-MISC-40	MISC	
Sample Location:	**Detailed Sample Location:**	
Stairway to Room 106T and 107	South side of stairway to Room 106T and 107.	
Sample Quantity:	28 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Rubber stair tread with clear mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-26-MISC-40

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-27-MISC-41	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 106T	Center floor of room 106T.	
Sample Quantity:	16 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Dark brown patterned 9 x 9 vinyl floor tiles with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-27-MISC-41

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-28-MISC-42	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 106T	Center floor of room 106T.	
Sample Quantity:	76 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Light tan patterned 9" x 9" vinyl floor tile with black mastic.	Damaged or significantly damaged;Potential ACBM with potential for damage	No

Sample Photo:

1-28-MISC-42

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-28-MISC-48	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 102	West stairway moving up in room 102.	
Sample Quantity:	76 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Light tan patterned 9" x 9" vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:

1-28-MISC-48

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-29-MISC-44	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 107	West wall next to window in room 107.	
Sample Quantity:	60 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White plastic waterproofing material with pale yellow adhesive.	Potential ACBM with potential for damage	No

Sample Photo:

1-29-MISC-44

Additional Sample Notes:	

Sample ID:	Sample Type:	
1-30-MISC-49	MISC	
Sample Location:	**Detailed Sample Location:**	
Top of stairway from room 102 to 107.	North wall at the top of stairs.	
Sample Quantity:	20 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Black cove base with tan mastic	Potential ACBM with potential for damage	No

Sample Photo:

1-30-MISC-49

Additional Sample Notes:	

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 101	Throughout the room.
Type of Fixture:	**Quantity:**
Boilers and steam equipment.	6
Condition:	**Additional Fixture Notes:**
Good	Associated motors, residual mechanical fluids and coal dust.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 101	Southeast corner of room 101.
Type of Fixture:	**Quantity:**
Fluorescent light bulbs.	13
Condition:	**Additional Fixture Notes:**
Good	

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 101	East wall behind control panels.
Type of Fixture:	**Quantity:**
	1
Condition:	**Additional Fixture Notes:**
Good	Boiler and equipment control panels containing mercury.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 101	West wall south of double doors.
Type of Fixture:	**Quantity:**
Fire hose.	1
Condition:	**Additional Fixture Notes:**
Good	Assumed asbestos containing material in fire hose.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 105	West of south door.
Type of Fixture:	**Quantity:**
Fire-resistant board.	1
Condition:	**Additional Fixture Notes:**
Good	

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 105 and 104	West of door between room 105 and 104.
Type of Fixture:	**Quantity:**
	2
Condition:	**Additional Fixture Notes:**
Good	Assumed mercury containing thermostats.

Other Material Photo:

Room 105

Room 104

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Throughout first floor.	
Type of Fixture:	**Quantity:**
Electrical equip	Several.
Condition:	**Additional Fixture Notes:**
Good	Electrical equipment: 13 breaker/electrical panels, 2 motor control center.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 101	Northwest corner of room 101.
Type of Fixture:	**Quantity:**
Equipment lift system.	1
Condition:	**Additional Fixture Notes:**
Good	Mechanical hazard with motor.

Other Material Photo:


TON

Project Name:	0457.02.03-01
Project Number:	Port of Whitman County
Date:	10/12/2021
Field Personnel:	Other
Sample Types:	Asbestos; Lead
Sample Areas:	Mezzanine

Samples

Sample ID:	**Sample Type:**	
2-1-MISC-1	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 202	Northwest corner floor.	
Sample Quantity:	66 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White stipple pattern 12” x 12” vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

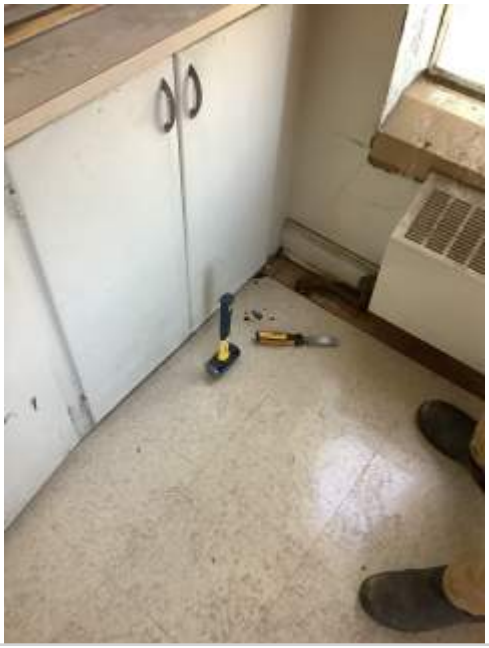
Sample Photo:

2-1-MISC-1

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-1-MISC-2	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 203	Southeast corner floor.	
Sample Quantity:	66 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White stipple pattern 12” x 12” vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:



2-1-MISC-2

Additional Sample Notes:	

Sample ID:	Sample Type:
2-1-PB-1	PB
Sample Location:	**Detailed Sample Location:**
Room 203	Southeast corner of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
White	0.180

Sample Photo:

2-1-PB-1

Additional Sample Notes:	

Sample ID:	Sample Type:
2-1-PB-2	PB
Sample Location:	**Detailed Sample Location:**
Room 204	Northeast corner of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
White	0.043

Sample Photo:

2-1-PB-2

Additional Sample Notes:	

Sample ID:	Sample Type:
2-2-PB-3	PB
Sample Location:	**Detailed Sample Location:**
Room 200S	Catwalk outside of room 204.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	0.085

Sample Photo:

2-2-PB-3

Additional Sample Notes:	

Sample ID:	Sample Type:
2-2-PB-4	PB
Sample Location:	**Detailed Sample Location:**
Room 200S	Catwalk outside of room 201.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	0.219

Sample Photo:

2-2-PB-4

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-2-MISC-3	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 203	Southeast corner of counter.	
Sample Quantity:	22 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan laminate countertop with clear mastic.	Potential ACBM with potential for damage	No

Sample Photo:

2-2-MISC-3

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-3-MISC-4	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 202	West side of floor.	
Sample Quantity:	175 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Light brown patterned 9” x 9” vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:

2-3-MISC-4

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-3-MISC-5	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 203	Southwest corner of floor.	
Sample Quantity:	175 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Light brown patterned 9” x 9” vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:

2-3-MISC-5

Additional Sample Notes:	

Sample ID:	Sample Type:
2-3-PB-5	PB
Sample Location:	**Detailed Sample Location:**
Room 201	Cabinet inside doorway.
Sample Quantity:	NA
Sample Color:	**XRF:**
Dark tan	0.330

Sample Photo:

2-3-PB-5

Additional Sample Notes:	

Sample ID:	Sample Type:
2-3-PB-6	PB
Sample Location:	**Detailed Sample Location:**
Room 201	Cabinet on north wall.
Sample Quantity:	NA
Sample Color:	**XRF:**
Dark tan	0.268

Sample Photo:

2-3-PB-6

Additional Sample Notes:	

Sample ID:	Sample Type:
2-4-PB-7	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Yellow pipe on first catwalk, west side of room.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Yellow	3.22

Sample Photo:

2-4-PB-7

Additional Sample Notes:	

Sample ID:	Sample Type:
2-4-PB-8	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Yellow pipe on first catwalk, west side of room.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Yellow	4.94

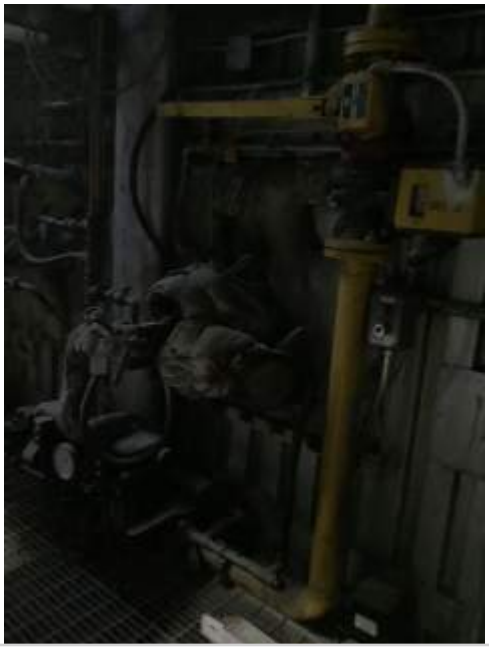
Sample Photo:

2-4-PB-8

Additional Sample Notes:	

Sample ID:	Sample Type:
2-4-PB-12	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Yellow pipe on first catwalk, east side of room.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Yellow	3.28

Sample Photo:



2-4-PB-12

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-4-MISC-6	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 202	East side of floor north of door.	
Sample Quantity:	20 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Brown stripped patterned 9” x 9” vinyl floor tile with black mastic.	Potential ACBM with potential for damage	No

Sample Photo:

2-4-MISC-6

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-5-MISC-7	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 202	Northeast corner of room.	
Sample Quantity:	30 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Black cove base with tan mastic.	Potential ACBM with potential for damage	No

Sample Photo:

2-5-MISC-7

Additional Sample Notes:	

Sample ID:	Sample Type:
2-5-PB-16	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Light green pipe on second catwalk on east side of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Light green	0.036

Sample Photo:

2-5–PB-16

Additional Sample Notes:	

Sample ID:	Sample Type:
2-5-PB-9	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Light green pipe on first catwalk in center of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Light green	0.242

Sample Photo:

2-5-PB-9

Additional Sample Notes:	

Sample ID:	Sample Type:
2-5-PB-10	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Light green pipe on first catwalk in center of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Light green	0.108

Sample Photo:

2-5-PB-10

Additional Sample Notes:	

Sample ID:	Sample Type:
2-6-PB-11	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Silver pipe on first catwalk in center of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

2-6-PB-11

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-6-TSI-8	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 202	Pipe on west wall.	
Sample Quantity:	4 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Potential ACBM with potential for damage	No

Sample Photo:

2-6-TSI-8

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-7-MISC-9	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 202	Northwest window.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Potential ACBM with potential for damage	No

Sample Photo:

2-7-MISC-9

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-7-MISC-10	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 203	Southeast window.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Potential ACBM with potential for damage	No

Sample Photo:

2-7-MISC-10

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-7-MISC-33	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 101	Northwest corner; highest catwalk.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Damaged or significantly damaged friable miscellaneous ACM	Yes

Sample Photo:

2-7-MISC-33

Additional Sample Notes:	

Sample ID:	Sample Type:
2-7-PB-13	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Red pipe on first catwalk, east side of room.
Sample Quantity:	750 linear feet.
Sample Color:	**XRF:**
Red	1.98

Sample Photo:

2-7-PB-13

Additional Sample Notes:	

Sample ID:	Sample Type:
2-7-PB-24	PB
Sample Location:	**Detailed Sample Location:**
Room 204	Red pipe
Sample Quantity:	750 linear feet.
Sample Color:	**XRF:**
Red	1.164

Sample Photo:

2-7-PB-24

Additional Sample Notes:	Submitted sample to laboratory for analysis.

Sample ID:	Sample Type:
2-8-PB-25	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Red pipe on first catwalk, east side of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Red	ND

Sample Photo:

2-8-PB-25

Additional Sample Notes:	

Sample ID:	Sample Type:
2-8-PB-14	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Red pipe on first catwalk, east side of room.
Sample Quantity:	100 linear feet.
Sample Color:	**XRF:**
Reddish brown	0.075

Sample Photo:

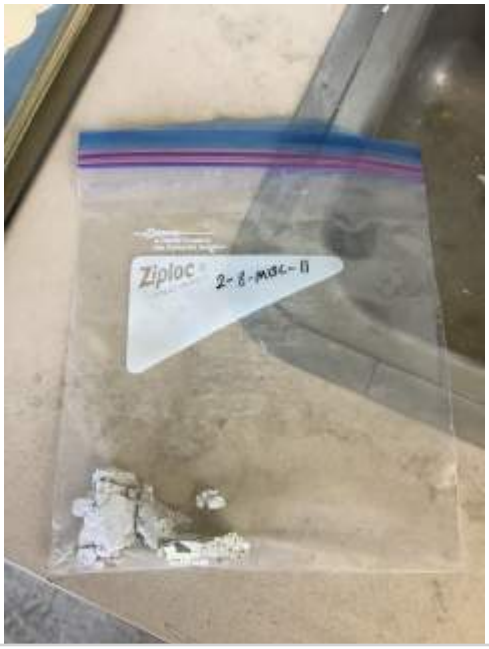
2-8-PB-14

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-8-MISC-11	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 203	East wall above sink.	
Sample Quantity:	1,000 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White drywall with cementitious wallboard.	Potential ACBM with potential for damage	No;Yes

Sample Photo:

2-8-MISC-11



Additional Sample Notes:	

Sample ID:	Sample Type:	
2-8-MISC-12	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 202	Northwest corner wall under window.	
Sample Quantity:	1,000 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White drywall with cementitious wallboard.	Potential ACBM with potential for damage	No

Sample Photo:

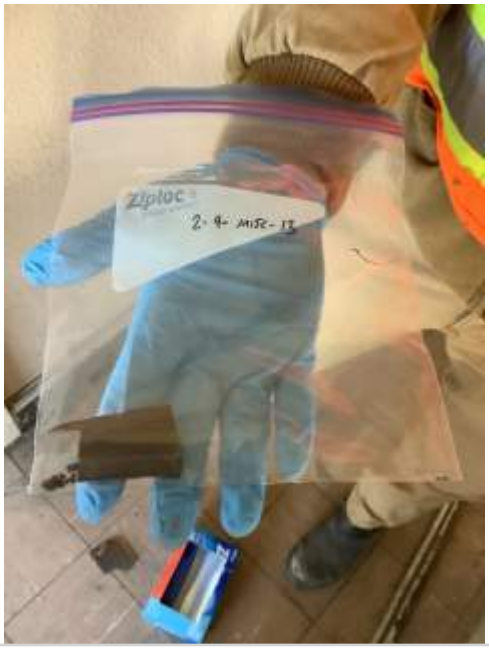
2-8-MISC-12

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-9-MISC-13	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 200S	West wall north of door to room 202.	
Sample Quantity:	14 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Brown cove base with brown mastic.	Potential ACBM with potential for damage	No

Sample Photo:

2-9-MISC-13



Additional Sample Notes:	

Sample ID:	Sample Type:
2-9-PB-15	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Gray corrugated boiler siding on second catwalk, east side of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Gray	ND

Sample Photo:

2-9-PB-15

Additional Sample Notes:	

Sample ID:	Sample Type:
2-9-PB-19	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Gray boiler siding on second catwalk, east side of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Gray	0.035

Sample Photo:

2-9-PB-19

Additional Sample Notes:	

Sample ID:	Sample Type:
2-10-PB-17	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Gray railing on second catwalk on east side of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Gray	0.007

Sample Photo:

2-10-PB-17

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-10-TSI-14	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 204	Pipe on east wall south of single door.	
Sample Quantity:	14 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

2-10-TSI-14

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-11-MISC-15	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 204	West wall south of double door.	
Sample Quantity:	615 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Red 12” x 12” brick.	Potential ACBM with potential for damage	No

Sample Photo:

2-11-MISC-15

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-11-MISC-17	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 204	North wall below window.	
Sample Quantity:	615 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Red 12” x 12” brick.	Potential ACBM with potential for damage	No

Sample Photo:

2-11-MISC-17

Additional Sample Notes:	

Sample ID:	**Sample Type:**
2-11-PB-18	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Tan boiler part on second catwalk on east side of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	0.101

Sample Photo:

2-11–PB-18

Additional Sample Notes:	

Sample ID:	Sample Type:
2-11-PB-22	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Tan mechanical part in room 204.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	ND

Sample Photo:

2-11–PB-22

Additional Sample Notes:	

Sample ID:	Sample Type:
2-12-PB-20	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Gray door frame on second catwalk, east side of room.
Sample Quantity:	NA
Sample Color:	**XRF:**
Gray	0.517

Sample Photo:

2-12-PB-20

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-12-MISC-18	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 204	North wall below window.	
Sample Quantity:	550 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray brick mortar.	Potential ACBM with potential for damage	No

Sample Photo:

2-12-MISC-18

Additional Sample Notes:	

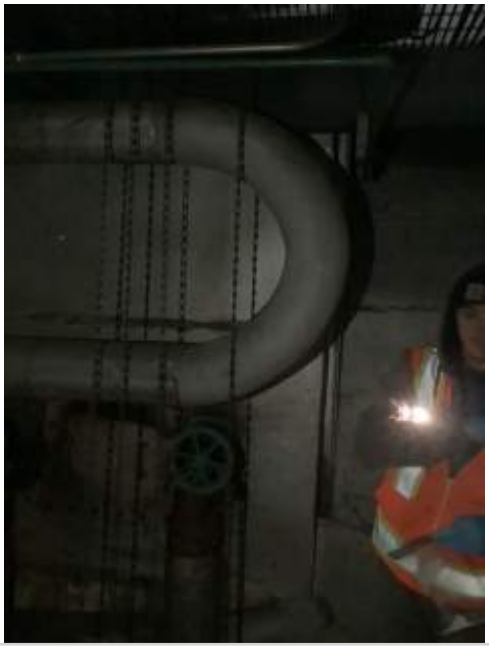
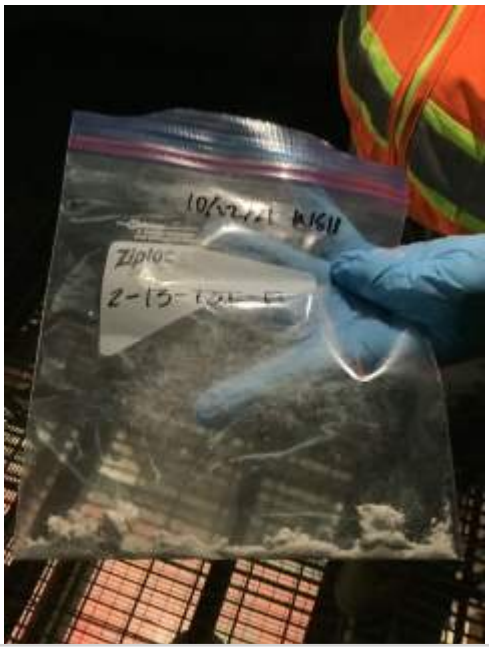
Sample ID:	Sample Type:	
2-12-MISC-16	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 204	West wall south of double door.	
Sample Quantity:	550 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray brick mortar.	Potential ACBM with potential for damage	No

Sample Photo:

2-12-MISC-16

Additional Sample Notes:	

Sample ID:	**Sample Type:**	
2-13-TSI-19	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Second catwalk on southwest side of Boiler 6.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	2-13-TSI-19
	

Additional Sample Notes:	Silver pipe with white insulation.

Sample ID:	**Sample Type:**
2-13-TSI-20	TSI
Sample Location:	**Detailed Sample Location:**
Room 101	Second catwalk on southwest side of Boiler 6.
Sample Quantity:	3,000 linear feet.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
	Damaged or significantly damaged	Yes

Sample Photo:

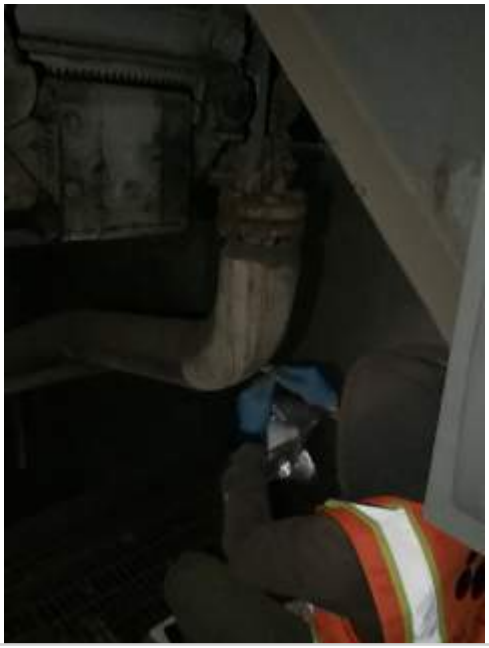
2-13-TSI-20

Additional Sample Notes:	Silver pipe with white insulation.

Sample ID:	Sample Type:
2-13-TSI-22	TSI
Sample Location:	**Detailed Sample Location:**
Room 101	Second catwalk on southwest side of Boiler 6.
Sample Quantity:	3,000 linear feet.

Sample Color:	XRF:	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:



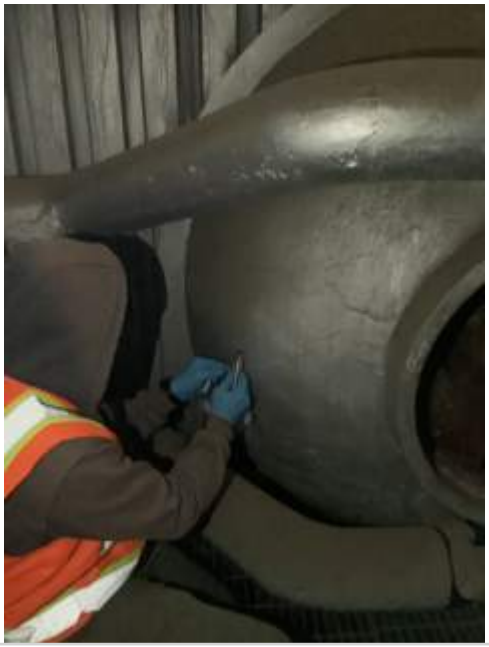
2-13-TSI-22

Additional Sample Notes:	Elbow on silver pipe.

Sample ID:	Sample Type:
2-13-TSI-23	TSI
Sample Location:	**Detailed Sample Location:**

Room 101	Second catwalk on southeast side of Boiler 6.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:



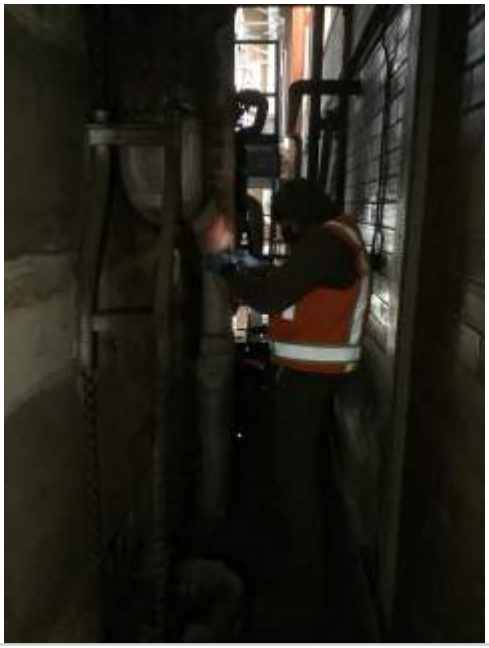
2-13-TSI-23

Additional Sample Notes:	Silver pipe with white insulation.

Sample ID:	**Sample Type:**

2-13-TSI-30	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Located throughout northeast side of room on and around Boiler 2 by staircase entrance.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	No

Sample Photo:



2-13-TSI-30

Additional Sample Notes:	Orange pipe wrap with white insulation.

Sample ID:	**Sample Type:**	
2-13-TSI-25	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Second catwalk on south side of Boiler 6.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

2-13-TSI-25

Additional Sample Notes:	Orange pipe with white insulation.

Sample ID:	Sample Type:
2-13-PB-21	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Red pipe on west side of Boiler 4.
Sample Quantity:	NA
Sample Color:	**XRF:**
Red	ND

Sample Photo:

2-13-PB-21

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-14-TSI-24	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Second catwalk on southeast side of Boiler 6.	
Sample Quantity:	500 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

2-14-TSI-24

Additional Sample Notes:	Silver pipe with white insulation.

Sample ID:	**Sample Type:**	
2-14-TSI-21	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Second catwalk on southwest side of Boiler 6.	
Sample Quantity:	500 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

2-14-TSI-21

Additional Sample Notes:	Silver pipe with white insulation.

Sample ID:	**Sample Type:**
2-14-PB-23	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Blue mechanical part in room 204.
Sample Quantity:	NA
Sample Color:	**XRF:**
Blue	ND

Sample Photo:

2-14-PB-23

Additional Sample Notes:	

Sample ID:	Sample Type:	
2-15-TSI-26	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Southeast corner of room.	
Sample Quantity:	35 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	No

Sample Photo:

2-15-TSI-26

Additional Sample Notes:	Tan / white pipe wrap with white insulation.

Sample ID:	**Sample Type:**	
2-15-TSI-27	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	East side of room by staircase entrance.	
Sample Quantity:	35 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	No

Sample Photo:	
	2-15-TSI-27
	

Additional Sample Notes:	White pipe wrap with white insulation.

Sample ID:	**Sample Type:**
2-16-TSI-28	TSI
Sample Location:	**Detailed Sample Location:**
Room 101	Located throughout northeast side of room on and around Boiler 2 by staircase entrance.
Sample Quantity:	Difficult to quantify.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
	Damaged or significantly damaged	No

Sample Photo:

2-16-TSI-28

Additional Sample Notes:	White tape wrap with white insulation.

Sample ID:	Sample Type:
2-16-TSI-29	TSI
Sample Location:	**Detailed Sample Location:**
Room 101	Located throughout northeast side of room on and around Boiler 2 by staircase entrance.
Sample Quantity:	Difficult to quantify.

Sample Color:	XRF:	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	No

Sample Photo:

2-16-TSI-29

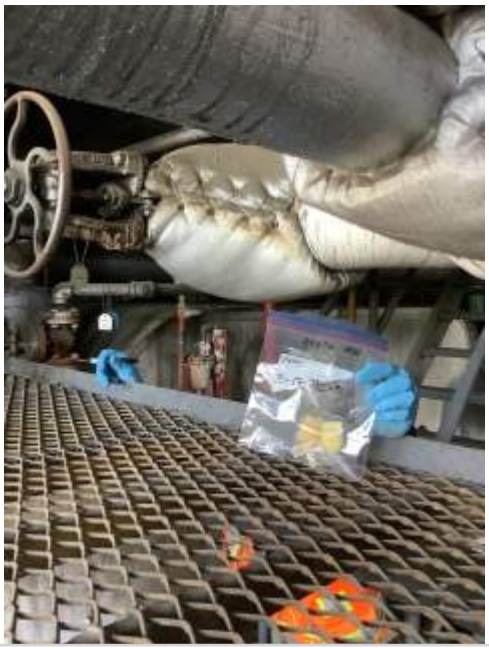
Additional Sample Notes:	White tape wrap with white insulation.

Sample ID:	Sample Type:
2-17-TSI-31	TSI
Sample Location:	**Detailed Sample Location:**

Room 101	North side of room, highest catwalk by Boiler 4.	
Sample Quantity:	20 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

2-17-TSI-31



Additional Sample Notes:	Silver paper wrapping and white insulation.

Sample ID:	**Sample Type:**

2-17-TSI-32	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Northwest corner of room, highest catwalk by Boiler 3.	
Sample Quantity:	20 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

2-17-TSI-32

Additional Sample Notes:	Silver paper wrapping and white insulation.

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 201	Ceiling of room 201, 203, and 204
Type of Fixture:	**Quantity:**
	28
Condition:	**Additional Fixture Notes:**
Good	Fluorescent lightbulbs

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 201	Northwest corner of room 201 behind door
Type of Fixture:	**Quantity:**
3 unmarked black cans	8
Condition:	**Additional Fixture Notes:**
Good	3 unmarked black cans.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Interior walls of rooms 202 and 203	
Type of Fixture:	**Quantity:**
	2
Condition:	**Additional Fixture Notes:**
Poor	

Other Material Photo:

Room 202

Room 203

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 101	Throughout room 101
Type of Fixture:	**Quantity:**
Electrical panels	7
Condition:	**Additional Fixture Notes:**
Good	4 electrical panels, 3 control panels.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 204	Throughout room 204
Type of Fixture:	**Quantity:**
Coal dust	Throughout room
Condition:	**Additional Fixture Notes:**
Other	Coal dust exposure.

Other Material Photo:

Project Name:	0457.02.03-01
Project Number:	Port of Whitman County
Date:	10/13/2021
Field Personnel:	Other
Sample Types:	Asbestos; Lead
Sample Areas:	Upper Mezzanine

Samples

Sample ID:	**Sample Type:**
3-1-PB-1	PB
Sample Location:	**Detailed Sample Location:**
Catwalk above coal hopper.	By staircase.
Sample Quantity:	NA
Sample Color:	**XRF:**
Red	0.136

Sample Photo:

Additional Sample Notes:	Red water line.

Sample ID:	**Sample Type:**
3-1-PB-2	PB
Sample Location:	**Detailed Sample Location:**
Catwalk above coal hopper.	By staircase.
Sample Quantity:	NA
Sample Color:	**XRF:**
Red	0.160

Sample Photo:


Additional Sample Notes:	Red water line.

Sample ID:	**Sample Type:**	
3-1-TSI-5	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 302	Pipe near west roof access.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

3-1-TSI-5

Additional Sample Notes:	White pipe insulation with white wrapping.

Sample ID:	**Sample Type:**	
3-1-TSI-1	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Highest catwalk.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	3-1-TSI-1
	

Additional Sample Notes:	White insulation with silver wrapping on boiler. Area of sampling not included on schematic of upper mezzanine.

Sample ID:	**Sample Type:**
3-1-TSI-2	TSI
Sample Location:	**Detailed Sample Location:**
Room 101	Highest catwalk.
Sample Quantity:	3,000 linear feet.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
	Damaged or significantly damaged	Yes

Sample Photo:

3-1-TSI-2

Additional Sample Notes:	White pipe insulation with white wrapping. Area of sampling not included on schematic of upper mezzanine.

Sample ID:	Sample Type:
3-1-TSI-7	TSI
Sample Location:	**Detailed Sample Location:**
Room 302	Vent near staircase to lower level.
Sample Quantity:	3,000 linear feet

Sample Color:	XRF:	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

3-1-TSI-7

Additional Sample Notes:	White vent insulation with white wrapping.

Sample ID:	Sample Type:
3-1-TSI-9	TSI
Sample Location:	**Detailed Sample Location:**

Room 302	Vent near staircase to lower level.	
Sample Quantity:	3,000 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

3-1-TSI-9

Additional Sample Notes:	White vent insulation with white wrapping.

Sample ID:	**Sample Type:**

3-2-TSI-3	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 101	Highest catwalk.	
Sample Quantity:	700 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

3-2-TSI-3

Additional Sample Notes:	Fabric insulation on pipe coming off of boiler. Area of sampling not included on schematic of upper mezzanine.

Sample ID:	**Sample Type:**	
3-2-TSI-6	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 302	Pipe near west roof access.	
Sample Quantity:	700 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

3-2-TSI-6

Additional Sample Notes:	White pipe insulation with silver wrapping.

Sample ID:	**Sample Type:**
3-2-PB-3	PB
Sample Location:	**Detailed Sample Location:**
Catwalk above coal hopper.	By staircase.
Sample Quantity:	700 linear feet.
Sample Color:	**XRF:**
Gray	5.00

Sample Photo:

Additional Sample Notes:	Gray I-beam.

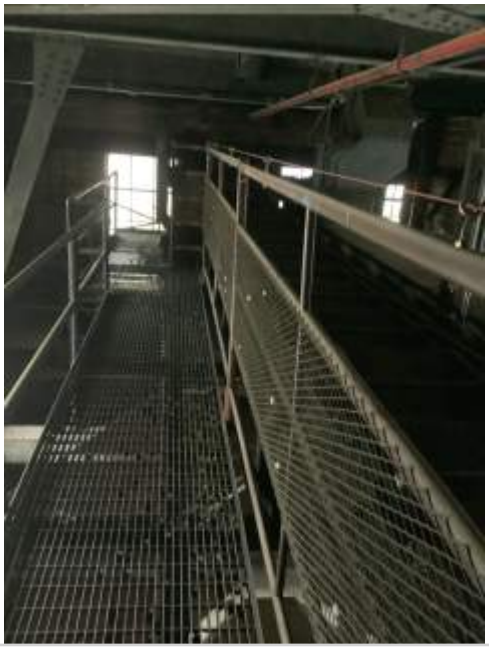
Sample ID:	**Sample Type:**
3-2-PB-4	PB
Sample Location:	**Detailed Sample Location:**
Catwalk above coal hopper.	By staircase.
Sample Quantity:	700 linear feet.
Sample Color:	**XRF:**
Gray	5.00

Sample Photo:

Additional Sample Notes:	Gray I-beam.

Sample ID:	**Sample Type:**
3-3-PB-5	PB
Sample Location:	**Detailed Sample Location:**
Catwalk above coal hopper.	By staircase.
Sample Quantity:	NA
Sample Color:	**XRF:**
Brown	ND

Sample Photo:



3-3-PB-5

Additional Sample Notes:	Brown catwalk railing.

Sample ID:	Sample Type:
3-3-PB-6	PB
Sample Location:	**Detailed Sample Location:**
Catwalk above coal hopper.	By staircase.
Sample Quantity:	NA
Sample Color:	**XRF:**
Brown	ND

Sample Photo:

3-3-PB-6

Additional Sample Notes:	Brown catwalk railing.

Sample ID:	Sample Type:	
3-3-TSI-4	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 302	Motor part near west roof access.	
Sample Quantity:	40 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

3-3-TSI-4

Additional Sample Notes:	White insulation on mechanical part.

Sample ID:	**Sample Type:**	
3-3-TSI-10	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 302	Motor part near west roof access.	
Sample Quantity:	40 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

3-3-TSI-10

Additional Sample Notes:	White insulation on mechanical part.

Sample ID:	**Sample Type:**	
3-4-TSI-8	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 302	Pipe near motor.	
Sample Quantity:	6 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	3-4-TSI-8
	

Additional Sample Notes:	Yellow insulation with white wrapping.

Sample ID:	**Sample Type:**
3-4-PB-7	PB
Sample Location:	**Detailed Sample Location:**
Room 302	On equipment by east side door.
Sample Quantity:	NA
Sample Color:	**XRF:**
Silver	ND

Sample Photo:


Additional Sample Notes:	Silver piping.

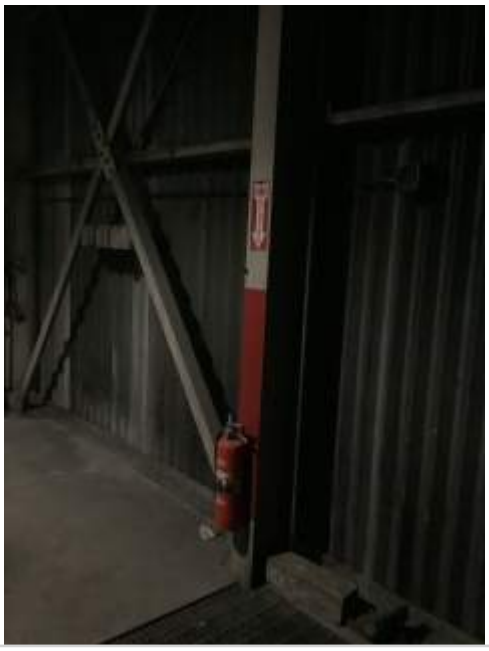
Sample ID:	**Sample Type:**
3-4-PB-8	PB
Sample Location:	**Detailed Sample Location:**
Room 302	On equipment by east side door.
Sample Quantity:	NA
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

Additional Sample Notes:	Silver piping.

Sample ID:	Sample Type:
3-5-PB-9	PB
Sample Location:	**Detailed Sample Location:**
Room 302	By west side door.
Sample Quantity:	NA
Sample Color:	**XRF:**
Red	0.528

Sample Photo:

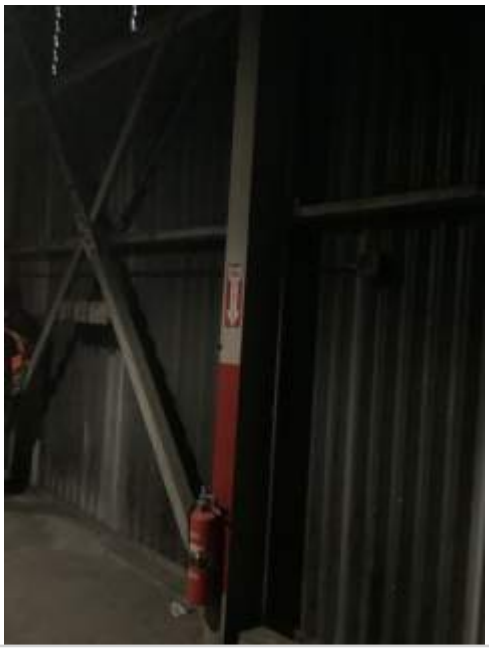


3-5-PB-9

Additional Sample Notes:	Red fire extinguisher marking paint.

Sample ID:	**Sample Type:**
3-6-PB-10	PB
Sample Location:	**Detailed Sample Location:**
Room 302	By west side door.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	0.531

Sample Photo:



3-6-PB-10

Additional Sample Notes:	Tan paint above fire extinguisher.

Sample ID:	**Sample Type:**
3-6-PB-11	PB
Sample Location:	**Detailed Sample Location:**
Room 302	By west side door.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	0.922

Sample Photo:

3-6-PB-11

Additional Sample Notes:	Tan paint on I-beam next to safety switch box.

Sample ID:	Sample Type:
3-6-PB-12	PB
Sample Location:	**Detailed Sample Location:**
Room 302	By staircase.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	0.920

Sample Photo:

3-6-PB-12

Additional Sample Notes:	Tan paint on I-beam. Sample collected for laboratory analysis.

Sample ID:	**Sample Type:**
3-7-PB-13	PB
Sample Location:	**Detailed Sample Location:**
Room 302	East door.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	ND

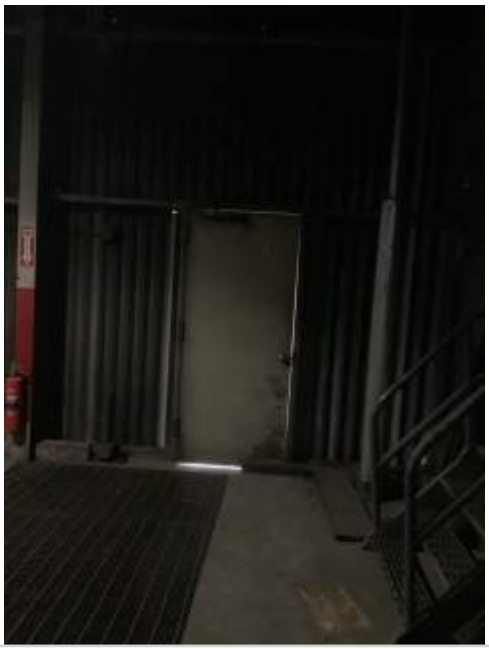
Sample Photo:

3-7-PB-13

Additional Sample Notes:	Tan paint on door.

Sample ID:	**Sample Type:**
3-7-PB-14	PB
Sample Location:	**Detailed Sample Location:**
Room 302	West door.
Sample Quantity:	NA
Sample Color:	**XRF:**
Tan	ND

Sample Photo:

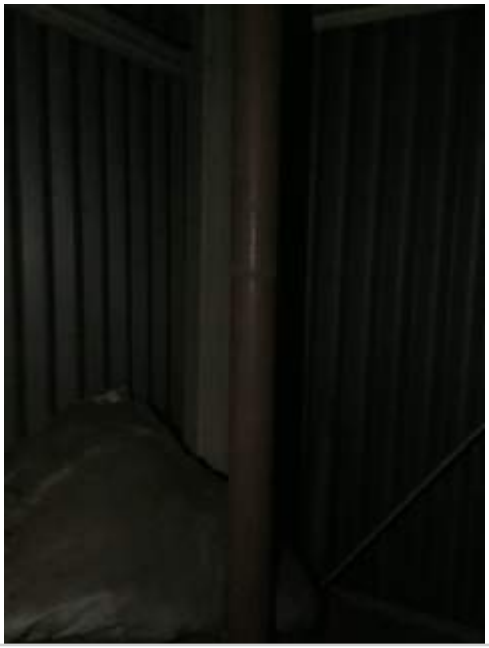


3-7-PB-14

Additional Sample Notes:	Tan paint on door.

Sample ID:	**Sample Type:**
3-8-PB-15	PB
Sample Location:	**Detailed Sample Location:**
Room 302	Southeast corner of room 302.
Sample Quantity:	NA
Sample Color:	**XRF:**
Brown	ND

Sample Photo:

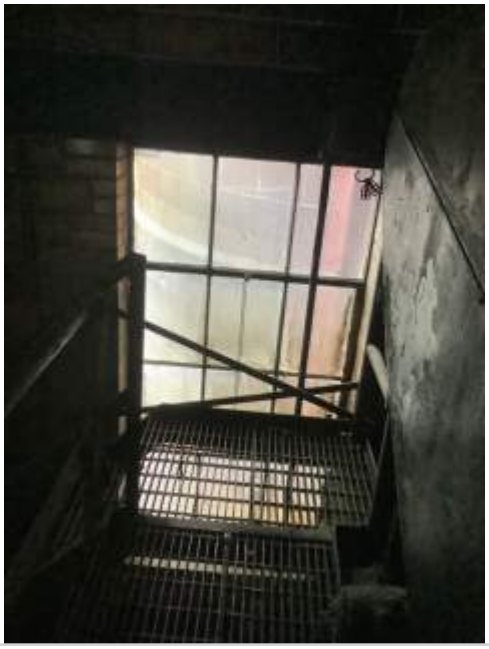


3-8-PB-15

Additional Sample Notes:	Brown paint on pipe to ceiling.

Sample ID:	Sample Type:	
3-8-MISC-11	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 303	Window on west side of room.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing	Damaged or significantly damaged friable miscellaneous ACM	No

Sample Photo:

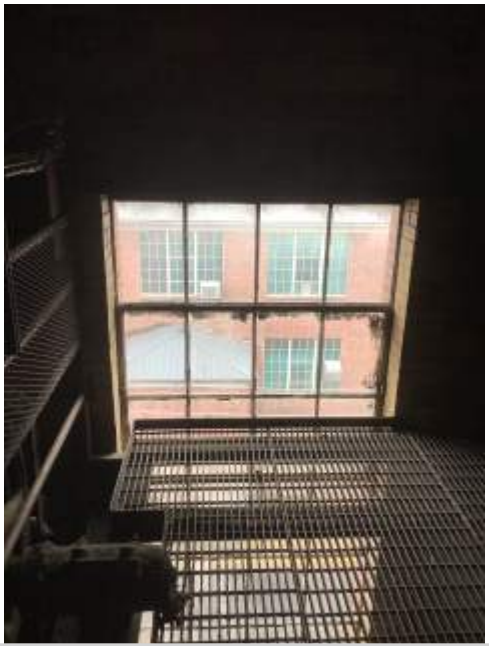


3-8-MISC-11

Additional Sample Notes:	

Sample ID:	Sample Type:	
3-8-MISC-12	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 303	Window on west side of room.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Damaged or significantly damaged friable miscellaneous ACM	No

Sample Photo:



3-8-MISC-12

Additional Sample Notes:	

Sample ID:	Sample Type:
3-9-PB-16	PB
Sample Location:	**Detailed Sample Location:**
Room 303M	Highest catwalk, southeast side.
Sample Quantity:	NA
Sample Color:	**XRF:**
Dark gray	ND

Sample Photo:

3-9-PB-16

Additional Sample Notes:	Door.

Sample ID:	**Sample Type:**
3-9-PB-17	PB
Sample Location:	**Detailed Sample Location:**
Room 303M	Highest catwalk, southeast side.
Sample Quantity:	NA
Sample Color:	**XRF:**
Dark gray	ND

Sample Photo:

3-9-PB-17

Additional Sample Notes:	Door.

Sample ID:	**Sample Type:**
3-10-PB-18	PB
Sample Location:	**Detailed Sample Location:**
Room 303M	
Sample Quantity:	NA
Sample Color:	**XRF:**
Red	0.095

Sample Photo:

3-10-PB-18

Additional Sample Notes:	Door.

Sample ID:	Sample Type:
3-11-PB-19	PB
Sample Location:	**Detailed Sample Location:**
Room 101	Highest catwalk.
Sample Quantity:	NA
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

3-11-PB-19

Additional Sample Notes:	Silver paint on boiler.

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 301	
Type of Fixture:	**Quantity:**
Asbestos dust breathing hazard signage.	
Condition:	**Additional Fixture Notes:**
Good	No material to sample in room.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 302	East wall.
Type of Fixture:	**Quantity:**
Unmarked jug and turbine oil container.	2
Condition:	**Additional Fixture Notes:**
Poor	

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 302	
Type of Fixture:	**Quantity:**
Potential mechanical fluid-containing fixture.	Throughout room
Condition:	**Additional Fixture Notes:**
Poor	

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 302	West side of room.
Type of Fixture:	**Quantity:**
Potential electrical hazard.	2
Condition:	**Additional Fixture Notes:**
Good	1 control panel, 1 safety switch.

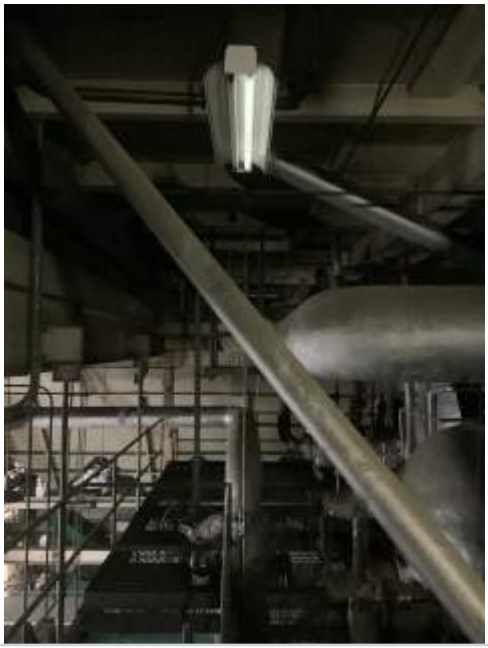
Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 303M	
Type of Fixture:	**Quantity:**
Potentially pressurized confined spaces.	17
Condition:	**Additional Fixture Notes:**
Good	

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 101	Highest catwalk.
Type of Fixture:	**Quantity:**
	2
Condition:	**Additional Fixture Notes:**
Good	Fluorescent lightbulbs.

Other Material Photo:



Project Name:	0457.02.03-01
Project Number:	Port of Whitman County
Date:	10/13/2021
Field Personnel:	Other
Sample Types:	Asbestos; Lead
Sample Areas:	Basement

Samples

Sample ID:	**Sample Type:**	
4-1-TSI-1	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 21	By entrance to room 22.	
Sample Quantity:	600 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-1-TSI-1

Additional Sample Notes:	White insulation with silver fabric patch.

Sample ID:	**Sample Type:**	
4-1-TSI-6	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 23	Northeast corner of room.	
Sample Quantity:	600 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-1-TSI-6

Additional Sample Notes:	White insulation with silver fabric patch.

Sample ID:	**Sample Type:**	
4-1-TSI-10	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Southeast portion of room by entrance to room 23.	
Sample Quantity:	600 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	4-1-TSI-10
	

Additional Sample Notes:	White insulation with silver fabric patch on boiler.

Sample ID:	**Sample Type:**
4-1-TSI-17	TSI
Sample Location:	**Detailed Sample Location:**
Room 11	Northeast portion of room between northeast staircase and elevator.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
	Damaged or significantly damaged	Yes

Sample Photo:

4-1-TSI-17

Additional Sample Notes:	White insulation with silver fabric patch on machinery.

Sample ID:	Sample Type:
4-1-PB-1	PB
Sample Location:	**Detailed Sample Location:**
Room 17	East wall south of door.
Sample Quantity:	N/A

Sample Color:	XRF:
Light green	0.336

Sample Photo:

4-1-PB-1

Additional Sample Notes:	

Sample ID:	Sample Type:
4-1-PB-2	PB
Sample Location:	**Detailed Sample Location:**
Room 17	Paint chip on floor nest to bathroom stall.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Light green	0.237

Sample Photo:

4-1-PB-2

Additional Sample Notes:	

Sample ID:	Sample Type:
4-1-PB-60	PB
Sample Location:	**Detailed Sample Location:**
Room 15	Paint on south wall of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Light green	0.014

Sample Photo:

4-1-PB-60

Additional Sample Notes:	

Sample ID:	Sample Type:
4-1-PB-61	PB
Sample Location:	**Detailed Sample Location:**
Room 15	Southwest corner of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Light green	0.135

Sample Photo:

4-1-PB-61

Additional Sample Notes:	

Sample ID:	Sample Type:
4-2-PB-52	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Red wrapped pipe on south wall of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	ND

Sample Photo:

4-2-PB-52

Additional Sample Notes:	

Sample ID:	Sample Type:
4-2-PB-3	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Pipe in southwest corner of room 21.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	ND

Sample Photo:

4-2-PB-3

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-2-TSI-29	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Center of room.	
Sample Quantity:	1,200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-2-TSI-29

Additional Sample Notes:	White insulation with silver painted wrap.

Sample ID:	**Sample Type:**	
4-2-TSI-31	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Center of room.	
Sample Quantity:	1,200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-2-TSI-31

Additional Sample Notes:	White insulation with silver painted wrap.

Sample ID:	**Sample Type:**
4-2-PB-7	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Pipe in southwest corner of room 21.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	ND

Sample Photo:

Additional Sample Notes:	

Sample ID:	Sample Type:
4-2-PB-25	PB
Sample Location:	**Detailed Sample Location:**
Room 23	Red pipe wrap on the south side of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	0.919

Sample Photo:

4-2-PB-25

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-2-TSI-20	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Northeast portion of room near northeast staircase.	
Sample Quantity:	1,200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-2-TSI-20

Additional Sample Notes:	White insulation with orange painted wrap.

Sample ID:	**Sample Type:**	
4-2-TSI-22	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Northeast portion of room.	
Sample Quantity:	1,200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-2-TSI-22

Additional Sample Notes:	White insulation with white painted wrap.

Sample ID:	**Sample Type:**	
4-2-TSI-25	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	On west side of room by staircase down.	
Sample Quantity:	1,200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	4-2-TSI-25
	

Additional Sample Notes:	White insulation with orange painted wrap.

Sample ID:	**Sample Type:**
4-2-TSI-7	TSI
Sample Location:	**Detailed Sample Location:**
Room 23	Northeast corner of room.
Sample Quantity:	1,200 linear feet.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
	Damaged or significantly damaged	Yes

Sample Photo:

4-2-TSI-7

Additional Sample Notes:	White insulation with orange painted wrap.

Sample ID:	Sample Type:
4-2-TSI-2	TSI
Sample Location:	**Detailed Sample Location:**
Room 21	By entrance to room 22.
Sample Quantity:	1,200 linear feet.

Sample Color:	XRF:	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-2-TSI-2

Additional Sample Notes:	White insulation with orange painted wrap.

Sample ID:	Sample Type:
4-3-MISC-3	MISC
Sample Location:	**Detailed Sample Location:**

Room 22	East wall.	
Sample Quantity:	110 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Brown soundproofing wall pad.	Potential ACBM with potential for damage	Yes

Sample Photo:

4-3-MISC-3

Additional Sample Notes:	

Sample ID:	**Sample Type:**
4-3-MISC-4	MISC
Sample Location:	**Detailed Sample Location:**

Room 22	North wall.	
Sample Quantity:	110 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Brown soundproofing wall pad.	Potential ACBM with potential for damage	Yes

Sample Photo:

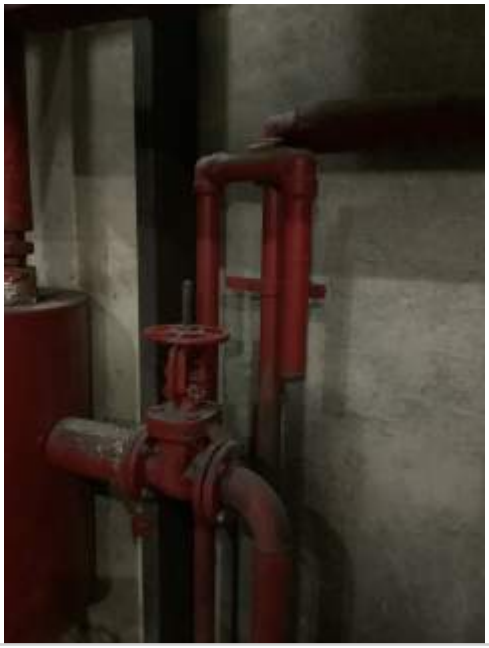
4-3-MISC-4

Additional Sample Notes:	

Sample ID:	**Sample Type:**
4-3-PB-20	PB
Sample Location:	**Detailed Sample Location:**

Room 23	Red pipe in southwest corner.
Sample Quantity:	145 linear feet.
Sample Color:	**XRF:**
Red	ND

Sample Photo:



4-3-PB-20

Additional Sample Notes:	

Sample ID:	**Sample Type:**
4-3-PB-4	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Tank on north wall east of entrance.
Sample Quantity:	145 linear feet.
Sample Color:	**XRF:**
Red	1.346

Sample Photo:

4-3-PB-4

Additional Sample Notes:	Did not XRF tank due to high heat. Submitted sample to laboratory for analysis.

Sample ID:	**Sample Type:**
4-3-PB-38	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Northwest corner of room.
Sample Quantity:	145 linear feet.
Sample Color:	**XRF:**
Red	2.01
Sample Photo:	

4-3-PB-38

Additional Sample Notes:	

Sample ID:	Sample Type:
4-3-PB-43	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Red pipe on the north side of room south of active tank.
Sample Quantity:	145 linear feet.
Sample Color:	**XRF:**
Red	5.0

Sample Photo:

4-3-PB-43

Additional Sample Notes:	

Sample ID:	Sample Type:
4-4-PB-30	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Silver support on west side of room east of sun basement entrance.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

4-4-PB-30

Additional Sample Notes:	

Sample ID:	Sample Type:
4-4-PB-33	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Silver painted equipment on west side of room north of sub basement door.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

4-4-PB-33

Additional Sample Notes:	

Sample ID:	Sample Type:
4-4-PB-47	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Underside of lid on southwest face of northeast boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Silver	0.071

Sample Photo:

4-4-PB-47

Additional Sample Notes:	

Sample ID:	Sample Type:
4-4-PB-5	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Silver pipe support on north ceiling.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Silver	0.024

Sample Photo:

4-4-PB-5

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-4-MISC-5	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 22	Northwest corner tabletop.	
Sample Quantity:	15 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Off-white laminate tabletop with clear adhesive.	Potential ACBM with potential for damage	Yes

Sample Photo:

4-4-MISC-5

Additional Sample Notes:	

Sample ID:	Sample Type:
4-5-PB-6	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Cabinet in center of room north of room 22.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Gray	0.063

Sample Photo:

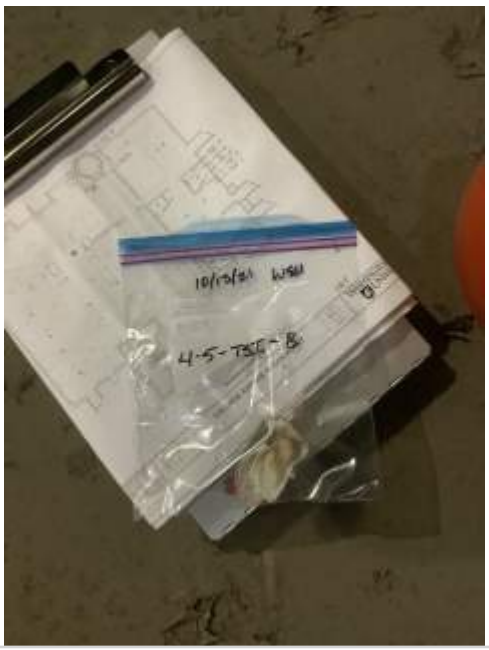
4-5-PB-6

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-5-TSI-8	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 23	Southeast corner of room.	
Sample Quantity:	200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

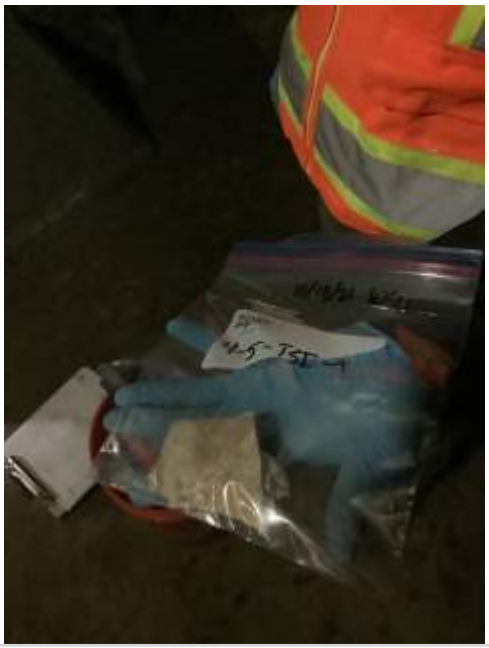
Sample Photo:

4-5-TSI-8



Additional Sample Notes:	Silver steam pipe fabric wrap.

Sample ID:	**Sample Type:**	
4-5-TSI-9	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Southeast corner of room by entrance to room 23.	
Sample Quantity:	200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	4-5-TSI-9
	

Additional Sample Notes:	Silver steam pipe fabric wrap.

Sample ID:	**Sample Type:**
4-5-TSI-26	TSI
Sample Location:	**Detailed Sample Location:**
Room 11	On west side of room by staircase down.
Sample Quantity:	200 linear feet.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
	Damaged or significantly damaged	Yes

Sample Photo:

4-5-TSI-26

Additional Sample Notes:	Silver steam pipe fabric wrap.

Sample ID:	Sample Type:
4-5-TSI-21	TSI
Sample Location:	**Detailed Sample Location:**
Room 11	Northeast portion of room near northeast staircase.
Sample Quantity:	200 linear feet.

Sample Color:	XRF:	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

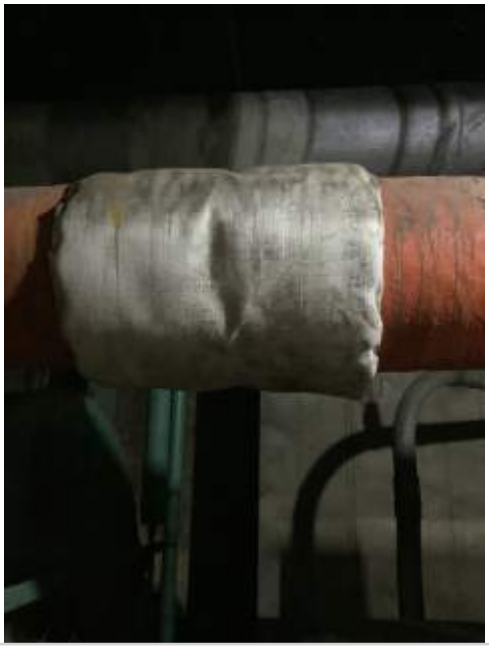
4-5-TSI-21

Additional Sample Notes:	Silver steam pipe fabric wrap.

Sample ID:	Sample Type:
4-5-TSI-11	TSI
Sample Location:	**Detailed Sample Location:**

Room 11	East portion of room by spiral staircase.	
Sample Quantity:	200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:



4-5-TSI-11

Additional Sample Notes:	Silver steam pipe fabric wrap.

Sample ID:	**Sample Type:**

4-5-TSI-13	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	East portion of room north of spiral staircase.	
Sample Quantity:	200 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

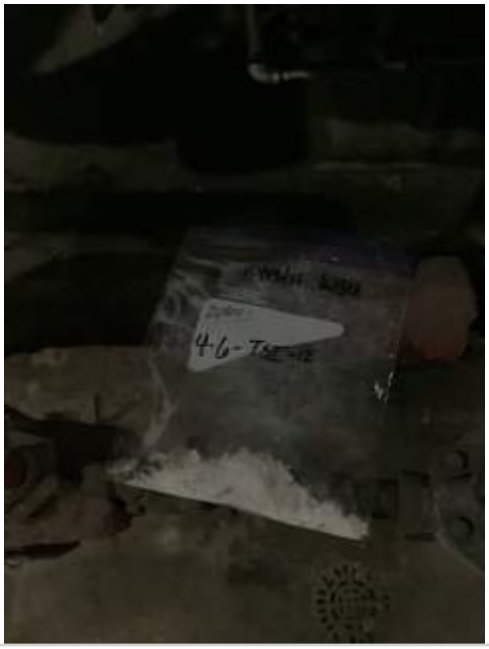
4-5-TSI-13

Additional Sample Notes:	Silver steam pipe fabric wrap.

Sample ID:	Sample Type:	
4-6-TSI-12	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	East portion of room north of spiral staircase.	
Sample Quantity:	40 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-6-TSI-12



Additional Sample Notes:	Red steam pipe fabric wrap.

Sample ID:	**Sample Type:**
4-6-PB-8	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Door frame to room 18.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Blue gray	0.086

Sample Photo:

4-6-PB-8

Additional Sample Notes:	

Sample ID:	Sample Type:
4-7-PB-9	PB
Sample Location:	**Detailed Sample Location:**
Room 18	Tank in southeast corner of room.
Sample Quantity:	5 linear feet.
Sample Color:	**XRF:**
Silver	5.00

Sample Photo:

4-7-PB-9

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-7-TSI-33	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Center of room.	
Sample Quantity:	500 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-7-TSI-33

Additional Sample Notes:	Yellow insulation with red painted silver wrap.

Sample ID:	**Sample Type:**	
4-7-TSI-18	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Northeast portion of room between northeast staircase and elevator.	
Sample Quantity:	500 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	4-7-TSI-18
	

Additional Sample Notes:	Orange steam pipe fabric wrap with yellow insulation.

Sample ID:	**Sample Type:**
4-7-TSI-19	TSI
Sample Location:	**Detailed Sample Location:**
Room 11	Northeast portion of room between northeast staircase and elevator.
Sample Quantity:	500 linear feet.
Sample Color:	**XRF:**

Misc Sample Material:	Sample Condition:	Sample Friable?:
	Damaged or significantly damaged	Yes

Sample Photo:

4-7-TSI-19

Additional Sample Notes:	Orange steam pipe fabric wrap with yellow insulation.

Sample ID:	Sample Type:
4-7-TSI-14	TSI
Sample Location:	**Detailed Sample Location:**
Room 11	East portion of room north of spiral staircase.
Sample Quantity:	500 linear feet.

Sample Color:	XRF:	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-7-TSI-14

Additional Sample Notes:	Silver steam pipe fabric wrap with yellow insulation.

Sample ID:	Sample Type:
4-7-TSI-15	TSI
Sample Location:	**Detailed Sample Location:**

Room 11	East portion of room north of spiral staircase.	
Sample Quantity:	500 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-7-TSI-15

Additional Sample Notes:	Red steam pipe fabric wrap with yellow insulation.

Sample ID:	**Sample Type:**

4-7-TSI-27	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	West portion of room by staircase to room 101.	
Sample Quantity:	500 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-7-TSI-27

Additional Sample Notes:	White condensate pipe with yellow insulation.

Sample ID:	Sample Type:	
4-7-TSI-28	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	West portion of room by staircase to room 101.	
Sample Quantity:	500 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-7-TSI-28

Additional Sample Notes:	White condensate line elbow with yellow insulation.

Sample ID:	Sample Type:	
4-8-MISC-16	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 11	By control wheels and conveying systems.	
Sample Quantity:	80 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Silver woven heat-resistant seal material on hatch interior.	Potential ACBM with potential for damage	No

Sample Photo:

4-8-MISC-16

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-8-MISC-30	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 11	By control wheels and conveying systems.	
Sample Quantity:	80 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Silver woven heat-resistant seal material on hatch interior.	Potential ACBM with potential for damage	No

Sample Photo:

4-8-MISC-30

Additional Sample Notes:	

Sample ID:	Sample Type:
4-8-PB-10	PB
Sample Location:	**Detailed Sample Location:**
Room 18	Pipe underneath tank in southeast corner.
Sample Quantity:	10 linear feet.
Sample Color:	**XRF:**
Orange	5.00
Sample Photo:	

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-8-MISC-24	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 11	By control wheels and conveying systems.	
Sample Quantity:	80 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Silver woven heat-resistant seal material on hatch interior.	Potential ACBM with potential for damage	No
Sample Photo:		

4-8-MISC-24

Additional Sample Notes:	

Sample ID:	Sample Type:
4-9-PB-11	PB
Sample Location:	**Detailed Sample Location:**
Room 18A	South side of stairway in 18A.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	0.300

Sample Photo:

4-9-PB-11

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-9-TSI-32	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Northeast portion of room.	
Sample Quantity:	20 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:

4-9-TSI-32

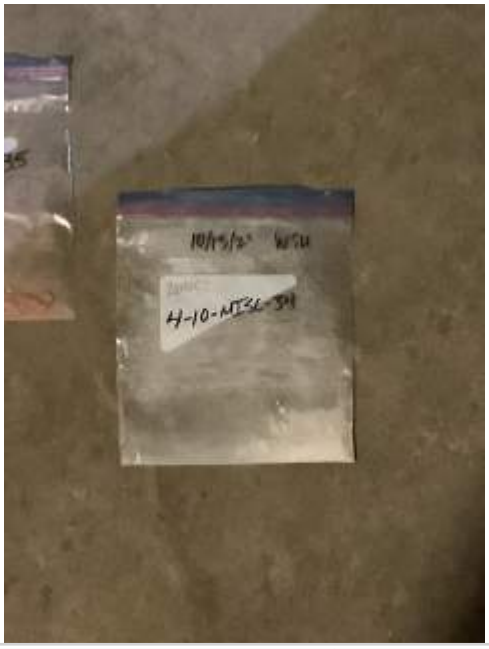
Additional Sample Notes:	White tank insulation with orange wrap.

Sample ID:	**Sample Type:**	
4-9-TSI-23	TSI	
Sample Location:	**Detailed Sample Location:**	
Room 11	Northeast portion of room.	
Sample Quantity:	20 linear feet.	
Sample Color:	**XRF:**	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
	Damaged or significantly damaged	Yes

Sample Photo:	
	4-9-TSI-23
	

Additional Sample Notes:	White tank insulation with gray painted wrap and fabric patch.

Sample ID:	**Sample Type:**	
4-10-MISC-34	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 18	East wall of room.	
Sample Quantity:	350 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray brick mortar.	Potential ACBM with potential for damage	No

Sample Photo:	
	4-10-MISC-34
	

Additional Sample Notes:	

Sample ID:	Sample Type:
4-10-PB-12	PB
Sample Location:	**Detailed Sample Location:**
Room 18 A	Pipe in west side of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Gray	0.085

Sample Photo:	
	4-10-PB-12

Additional Sample Notes:	

Sample ID:	Sample Type:
4-11-PB-13	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Red fire extinguisher marking paint on northwest corner
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	ND

Sample Photo:

4-11-PB-13

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-11-MISC-35	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 18	North wall of room.	
Sample Quantity:	180 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Red brick	Potential ACBM with potential for damage	No

Sample Photo:

4-11-MISC-35

Additional Sample Notes:	

Sample ID:	Sample Type:
4-11-PB-54	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Red fire extinguisher marking in southeast corner of room north of spiral staircase.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Red	ND

Sample Photo:

4-11-PB-54

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-12-MISC-36	MISC	
Sample Location:	**Detailed Sample Location:**	
Bathroom by west exit in stairwell.		
Sample Quantity:	60 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White textured waterproofing tile.	Damaged or significantly damaged friable miscellaneous ACM	No

Sample Photo:

4-12-MISC-36

Additional Sample Notes:	

Sample ID:	Sample Type:
4-12-PB-14	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Door to room 15.
Sample Quantity:	24 square feet.
Sample Color:	**XRF:**
Gray	4.11

Sample Photo:

4-12-PB-14

Additional Sample Notes:	

Sample ID:	Sample Type:
4-13-PB-15	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Paint under new paint on door to room 15.
Sample Quantity:	24 square feet.
Sample Color:	**XRF:**
Light tan	3.40

Sample Photo:

4-13-PB-15

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-13-MISC-37	MISC	
Sample Location:	**Detailed Sample Location:**	
Bathroom by exit		
Sample Quantity:	30 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Damaged or significantly damaged friable miscellaneous ACM	No

Sample Photo:

4-13-MISC-37

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-14-MISC-38	MISC	
Sample Location:	**Detailed Sample Location:**	
Bathroom by exit		
Sample Quantity:	20 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Black 12" x 12" linoleum floor tile with yellow adhesive	Damaged or significantly damaged friable miscellaneous ACM	No

Sample Photo:

4-14-MISC-38

Additional Sample Notes:	

Sample ID:	Sample Type:
4-14-PB-16	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Orange pipe on south wall west of room 22.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Orange	5.00

Sample Photo:

4-14-PB-16

Additional Sample Notes:	

Sample ID:	Sample Type:
4-14-PB-21	PB
Sample Location:	**Detailed Sample Location:**
Room 23	Orange pipe on east wall.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Orange	3.70

Sample Photo:

4-14-PB-21

Additional Sample Notes:	

Sample ID:	Sample Type:
4-14-PB-55	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Orange pipe wrap in southeast corner of room north of spiral staircase.
Sample Quantity:	600 linear feet
Sample Color:	**XRF:**
Orange	1.275

Sample Photo:

4-14-PB-55

Additional Sample Notes:	

Sample ID:	Sample Type:
4-14-PB-57	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Southeast corner of room east of doorway.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Orange	4.49

Sample Photo:

4-14-PB-57

Additional Sample Notes:	

Sample ID:	Sample Type:
4-14-PB-42	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Orange pipe in northwest corner of room west of active tank.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Orange	5.0

Sample Photo:

4-14-PB-42

Additional Sample Notes:	

Sample ID:	Sample Type:
4-14-PB-50	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Orange tank in center of room between the two north boilers.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Orange	1.223

Sample Photo:

4-14-PB-50

Additional Sample Notes:	Submitted sample to laboratory for analysis.

Sample ID:	**Sample Type:**
4-14-PB-27	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Orange pipe in southwest corner of room.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Orange	3.32

Sample Photo:

4-14-PB-27

Additional Sample Notes:	

Sample ID:	Sample Type:
4-14-PB-44	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Northeast corner of room west of exit doorway.
Sample Quantity:	600 linear feet.
Sample Color:	**XRF:**
Orange	2.43

Sample Photo:

4-14-PB-44

Additional Sample Notes:	

Sample ID:	Sample Type:
4-15-PB-17	PB
Sample Location:	**Detailed Sample Location:**
Room 21	White paint on orange pipe on south wall west of room 22.
Sample Quantity:	2 linear feet.
Sample Color:	**XRF:**
White	5.00

Sample Photo:

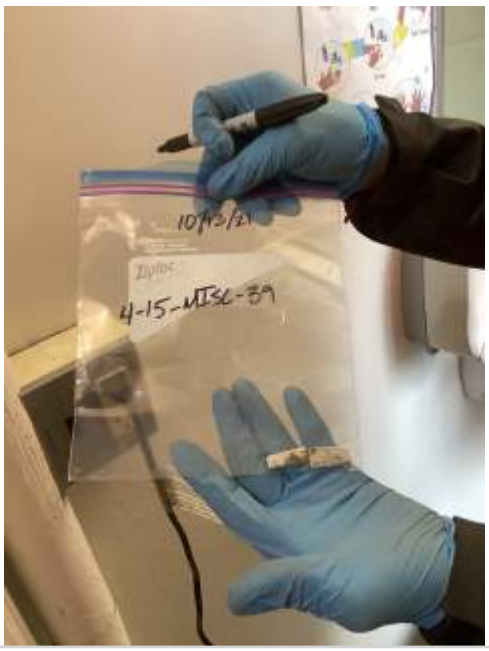
4-15-PB-17

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-15-MISC-39	MISC	
Sample Location:	**Detailed Sample Location:**	
Bathroom by exit		
Sample Quantity:	20 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White 12" x 12" linoleum floor tile with yellow adhesive.	Damaged or significantly damaged friable miscellaneous ACM	No

Sample Photo:

4-15-MISC-39

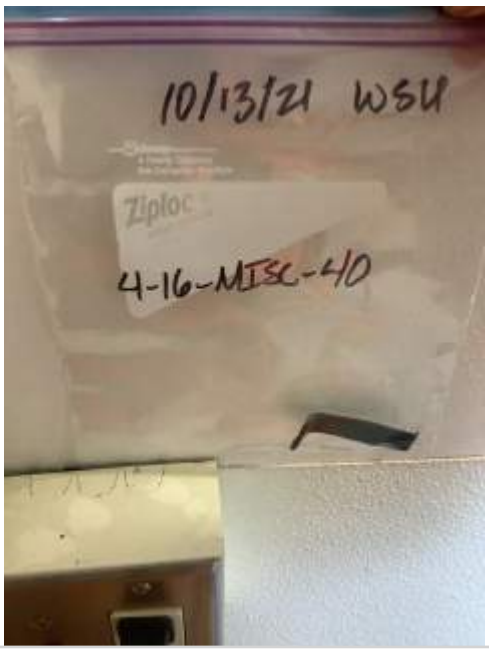


Additional Sample Notes:	

Sample ID:	Sample Type:	
4-16-MISC-40	MISC	
Sample Location:	**Detailed Sample Location:**	
Bathroom by exit		
Sample Quantity:	21 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Black cove base with tan adhesive.	Damaged or significantly damaged friable miscellaneous ACM	No

Sample Photo:

4-16-MISC-40



Additional Sample Notes:	

Sample ID:	Sample Type:
4-16-PB-18	PB
Sample Location:	**Detailed Sample Location:**
Room 22	East wall of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	ND

Sample Photo:

4-16-PB-18

Additional Sample Notes:	

Sample ID:	Sample Type:
4-16-PB-24	PB
Sample Location:	**Detailed Sample Location:**
Room 23	Tan paint on northwest corner of wall.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	ND

Sample Photo:

Additional Sample Notes:	

Sample ID:	Sample Type:
4-16-PB-28	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Support beam in southwest center of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	ND

Sample Photo:

Additional Sample Notes:	

Sample ID:	Sample Type:
4-16-PB-51	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Support beam on south side of room east of green air equipment.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	0.005

Sample Photo:

4-16-PB-51

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-17-MISC-41	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 17	Northeast floor in front of door.	
Sample Quantity:	180 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan 1”-2” square tile with brown adhesive.	Potential ACBM with potential for damage	No

Sample Photo:

4-17-MISC-41

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-17-MISC-42	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 17	South center room next to center dividing wall.	
Sample Quantity:	180 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan 1”-2” square tile with brown adhesive.	Potential ACBM with potential for damage	No

Sample Photo:

4-17-MISC-42

Additional Sample Notes:	

Sample ID:	Sample Type:
4-17-PB-45	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Yellow concrete block In northeast corner of room south of exit doorway.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Yellow	ND

Sample Photo:

4-17-PB-45

Additional Sample Notes:	

Sample ID:	Sample Type:
4-17-PB-19	PB
Sample Location:	**Detailed Sample Location:**
Room 21	Yellow caution paint above doorway to room 11.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Yellow	ND

Sample Photo:

4-17-PB-19

Additional Sample Notes:	

Sample ID:	Sample Type:
4-18-PB-22	PB
Sample Location:	**Detailed Sample Location:**
Room 23	Yellow pipe in northeast corner.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Yellow	0.305

Sample Photo:

4-18-PB-22

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-18-MISC-43	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 17	South wall of room.	
Sample Quantity:	920 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White drywall with gray cementitious wallboard.	Potential ACBM with potential for damage	No

Sample Photo:

4-18-MISC-43

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-18-MISC-45	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 17	West wall in northwest corner.	
Sample Quantity:	920 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White drywall with gray cementitious wallboard.	Potential ACBM with potential for damage	No

Sample Photo:

4-18-MISC-45

Additional Sample Notes:	

Sample ID:	Sample Type:	
4-19-MISC-44	MISC	
Sample Location:	**Detailed Sample Location:**	
Room 17	West wall in northwest corner.	
Sample Quantity:	60 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Tan cove base with green adhesive.	Potential ACBM with potential for damage	No

Sample Photo:

4-19-MISC-44

Additional Sample Notes:	

Sample ID:	Sample Type:
4-19-PB-39	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Northwest corner of room south of window.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Blue	0.084

Sample Photo:

4-19-PB-39

Additional Sample Notes:	

Sample ID:	Sample Type:
4-19-PB-23	PB
Sample Location:	**Detailed Sample Location:**
Room 23	Blue pipe in northeast corner.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Blue	0.306

Sample Photo:

4-19-PB-23

Additional Sample Notes:	

Sample ID:	Sample Type:
4-20-PB-26	PB
Sample Location:	**Detailed Sample Location:**
Room 23	Green equipment on south side of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Green	0.908

Sample Photo:

4-20-PB-26

Additional Sample Notes:	

Sample ID:	Sample Type:
4-21-PB-29	PB
Sample Location:	**Detailed Sample Location:**
Room 11	White pipe wrap on west side of room east of sun basement entrance.
Sample Quantity:	N/A
Sample Color:	**XRF:**
White	ND

Sample Photo:

4-21-PB-29

Additional Sample Notes:	

Sample ID:	Sample Type:
4-22-PB-31	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Yellow pipe on east side of room east of door to sub basement.
Sample Quantity:	140 linear feet.
Sample Color:	**XRF:**
Yellow	5.00

Sample Photo:

4-22-PB-31

Additional Sample Notes:	

Sample ID:	Sample Type:
4-22-PB-37	PB
Sample Location:	**Detailed Sample Location:**
Room 11	North side of room north of northwest boiler.
Sample Quantity:	140 linear feet.
Sample Color:	**XRF:**
Yellow	3.67

Sample Photo:

4-22-PB-37

Additional Sample Notes:	

Sample ID:	Sample Type:
4-22-PB-48	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Center of room east of southwest boiler.
Sample Quantity:	140 linear feet.
Sample Color:	**XRF:**
Yellow	4.38

Sample Photo:

4-22-PB-48

Additional Sample Notes:	

Sample ID:	Sample Type:
4-23-PB-49	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Support in center of room between the two north boilers.
Sample Quantity:	280 linear feet.
Sample Color:	**XRF:**
Bright white	5.00

Sample Photo:

4-23-PB-49

Additional Sample Notes:	

Sample ID:	Sample Type:
4-23-PB-32	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Support in northwest corner.
Sample Quantity:	264 linear feet.
Sample Color:	**XRF:**
Bright white	5.00

Sample Photo:

4-23-PB-32

Additional Sample Notes:	Submitted sample to laboratory for analysis.

Sample ID:	**Sample Type:**
4-23-PB-34	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Support on north side of room east of active tank.
Sample Quantity:	264 linear feet.
Sample Color:	**XRF:**
White	0.146

Sample Photo:

4-23-PB-34

Additional Sample Notes:	

Sample ID:	Sample Type:
4-23-PB-35	PB
Sample Location:	**Detailed Sample Location:**
Room 11	North side of room south of active tank.
Sample Quantity:	280 linear feet.
Sample Color:	**XRF:**
White	5.00

Sample Photo:

4-23-PB-35

Additional Sample Notes:	

Sample ID:	Sample Type:
4-24-PB-36	PB
Sample Location:	**Detailed Sample Location:**
Room 11	North side of room north of northwest boiler.
Sample Quantity:	100 linear feet.
Sample Color:	**XRF:**
Green	0.241

Sample Photo:

4-24-PB-36

Additional Sample Notes:	Submitted sample to laboratory for analysis.

Sample ID:	**Sample Type:**
4-24-PB-40	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Northwest corner of room.
Sample Quantity:	100 linear feet.
Sample Color:	**XRF:**
Green	ND

Sample Photo:

4-24-PB-36

Additional Sample Notes:	

Sample ID:	**Sample Type:**
4-24-PB-46	PB
Sample Location:	**Detailed Sample Location:**
Room 11	East side of room east of northeast boiler.
Sample Quantity:	100 linear feet.
Sample Color:	**XRF:**
Green	1.178

Sample Photo:

4-24-PB-36

Additional Sample Notes:	Difficult to quantify.

Sample ID:	Sample Type:
4-24-PB-53	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Green pipe and equipment on south side of room east of entrance to room 21.
Sample Quantity:	100 linear feet.
Sample Color:	**XRF:**
Green	0.220

Sample Photo:

4-24-PB-53

Additional Sample Notes:	

Sample ID:	Sample Type:
4-24-PB-58	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Southwest corner of room.
Sample Quantity:	100 linear feet.
Sample Color:	**XRF:**
Green	0.084

Sample Photo:

4-24-PB-58

Additional Sample Notes:	

Sample ID:	Sample Type:
4-25-PB-59	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Southeast corner of room west of southeast boiler.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Reddish brown	0.069

Sample Photo:

4-25-PB-59

Additional Sample Notes:	

Sample ID:	Sample Type:
4-25-PB-41	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Drain pipe in northwest corner of room west of active tank.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Reddish brown	ND

Sample Photo:

4-25-PB-41

Additional Sample Notes:	

Sample ID:	Sample Type:
4-26-PB-56	PB
Sample Location:	**Detailed Sample Location:**
Room 11	Silver pipe wrap southeast corner of room.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Silver	ND

Sample Photo:

4-26-PB-56

Additional Sample Notes:	

Sample ID:	Sample Type:
4-27-PB-62	PB
Sample Location:	**Detailed Sample Location:**
Room 15	East side of center wall of room next to mirror.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	0.008

Sample Photo:

4-27-PB-62

Additional Sample Notes:	

Other Material Tracking

General Fixture Location:	Detailed Fixture Location:
Room 15	Throughout room.
Type of Fixture:	**Quantity:**
Mechanical fluid hazard.	Throughout room.
Condition:	**Additional Fixture Notes:**
Good	Mechanical fluid containers throughout room.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 17	Throughout room.
Type of Fixture:	**Quantity:**
Potential lead paint hazard.	Throughout room.
Condition:	**Additional Fixture Notes:**
Severely damaged	Paint peeling off walls and ceiling.

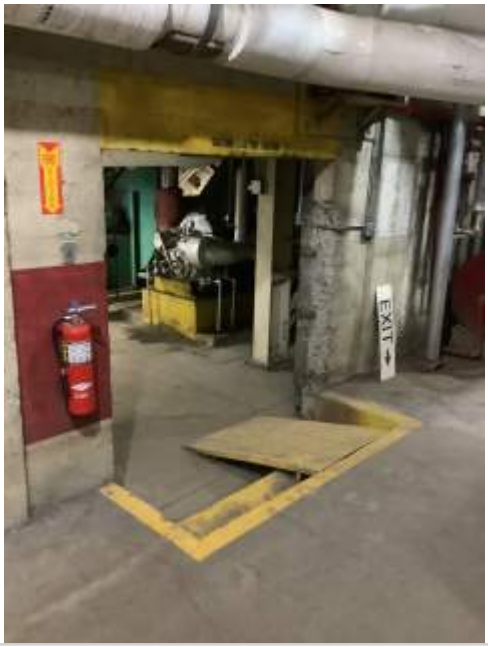
Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 21 and room 23	Throughout rooms.
Type of Fixture:	**Quantity:**
Hot pipes and tanks.	Several
Condition:	**Additional Fixture Notes:**
Good	Burn hazard from hot pipes and tanks.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 21	North wall.
Type of Fixture:	**Quantity:**
Low clearance.	1
Condition:	**Additional Fixture Notes:**
Good	Low ceiling hazard.

Other Material Photo:



Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 21	Throughout room.
Type of Fixture:	**Quantity:**
Electrical hazard.	3
Condition:	**Additional Fixture Notes:**
Good	1 electric source control unit, 1 electrical control panel, 1 electrical switch box.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 11	Throughout room.
Type of Fixture:	**Quantity:**
Electrical fixtures.	25
Condition:	**Additional Fixture Notes:**
Good	1 control box, 20 control switch, 3 electrical boxes, 1 motor control center.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 11	North side of room.
Type of Fixture:	**Quantity:**
Active steam equipment.	Several
Condition:	**Additional Fixture Notes:**
Good	Active tanks, pumps, and lines.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 11	Throughout room.
Type of Fixture:	**Quantity:**
Low clearance.	Several
Condition:	**Additional Fixture Notes:**
Good	Low pipes and supports.

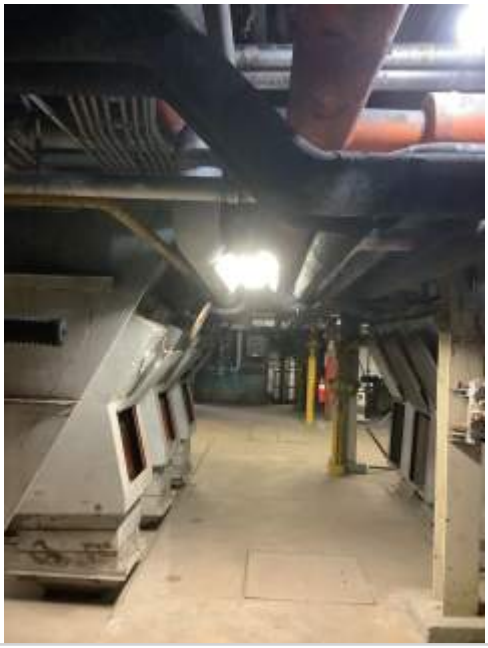
Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 11	East side of room.
Type of Fixture:	**Quantity:**
Elevator shaft.	1
Condition:	**Additional Fixture Notes:**
Good	Potential hazard related to mechanical operation.

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 11, 21, 23	Throughout rooms.
Type of Fixture:	**Quantity:**
Fluorescent light fixtures.	43
Condition:	**Additional Fixture Notes:**
Good	34 lights in place and active, 9 in box in room 21.

Other Material Photo:



Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room 11	Throughout room.
Type of Fixture:	**Quantity:**
Steam equipment.	Several
Condition:	**Additional Fixture Notes:**
Good	Mechanical fluid hazard related to inactive and active equipment.

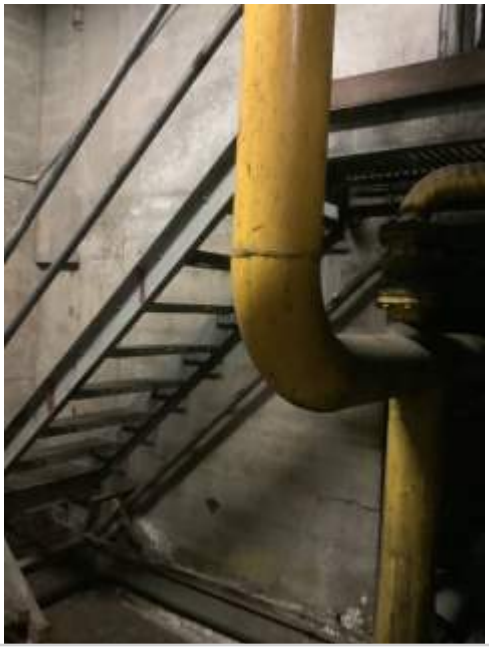
Other Material Photo:

Project Name:	0457.02.03-01
Project Number:	Port of Whitman County
Date:	10/14/2021
Field Personnel:	Other
Sample Types:	Asbestos; Lead
Sample Areas:	Sub Basement

Samples

Sample ID:	**Sample Type:**
5-1-PB-1	PB
Sample Location:	**Detailed Sample Location:**
Room B1	West hall entrance.
Sample Quantity:	110 linear feet.
Sample Color:	**XRF:**
Yellow	0.023

Sample Photo:



5-1-PB-1

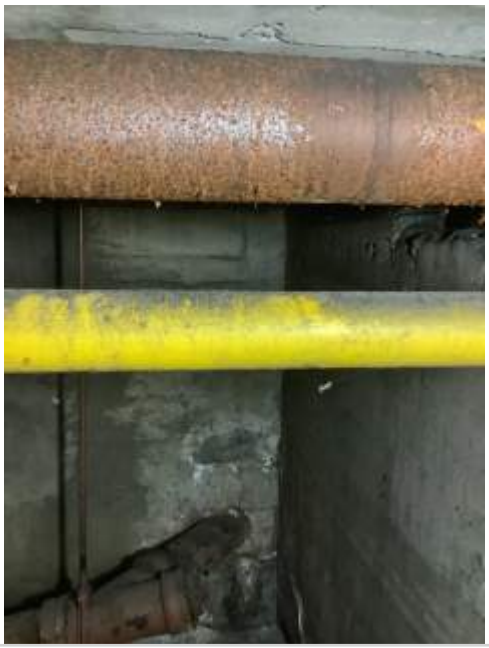
Additional Sample Notes:	

Sample ID:	**Sample Type:**
5-1-PB-2	PB
Sample Location:	**Detailed Sample Location:**
Room B1	Center of hallway.
Sample Quantity:	110 linear feet.
Sample Color:	**XRF:**
Yellow	ND

Sample Photo:	
	5-1-PB-2
	

Additional Sample Notes:	Submitted sample to laboratory for analysis

Sample ID:	**Sample Type:**
5-1-PB-3	PB
Sample Location:	**Detailed Sample Location:**
Room B1	East end of hallway.
Sample Quantity:	110 linear feet.
Sample Color:	**XRF:**
Yellow	2.08

Sample Photo:	
	5-1-PB-3

Additional Sample Notes:	

Sample ID:	Sample Type:
5-2-PB-4	PB
Sample Location:	**Detailed Sample Location:**
Room B3	Center of room.
Sample Quantity:	5 linear feet.
Sample Color:	**XRF:**
Orange	1.012

Sample Photo:

5-2-PB-4

Additional Sample Notes:	

Sample ID:	Sample Type:
5-3-PB-5	PB
Sample Location:	**Detailed Sample Location:**
Room B1	East wall at end of hall.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Brown	0.08

Sample Photo:

5-3-PB-5

Additional Sample Notes:	

Sample ID:	Sample Type:
5-3-PB-6	PB
Sample Location:	**Detailed Sample Location:**
Room B1	East end in the center of hall.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Brown	ND

Sample Photo:

5-3-PB-6

Additional Sample Notes:	

Sample ID:	Sample Type:
5-4-PB-7	PB
Sample Location:	**Detailed Sample Location:**
Room B1	Center of hallway.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Reddish brown	ND

Sample Photo:

5-4-PB-7

Additional Sample Notes:	

Other Material Tracking

General Fixture Location:	Detailed Fixture Location:
Room B1	Southeast corner of room.
Type of Fixture:	**Quantity:**
Fluorescent bulbs.	3
Condition:	**Additional Fixture Notes:**
Good	

Other Material Photo:

Other Material Tracking	
General Fixture Location:	**Detailed Fixture Location:**
Room B2	Whole room.
Type of Fixture:	**Quantity:**
Confined space.	1
Condition:	**Additional Fixture Notes:**
Good	Confined space hazard in room B2.

Other Material Photo:

Project Name:	0457.02.03-01
Project Number:	Port of Whitman County
Date:	10/14/2021
Field Personnel:	Other
Sample Types:	Asbestos; Lead
Sample Areas:	Exterior

Samples

Sample ID:	**Sample Type:**	
EXT-1-MISC-1	MISC	
Sample Location:	**Detailed Sample Location:**	
West exterior side of structure.	West exterior side of room 101 north of double doors next to ash pit tower.	
Sample Quantity:	15,000 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Red brick	Potential ACBM with potential for damage;Remaining friable ACBM or friable suspected ACBM	No

Sample Photo:

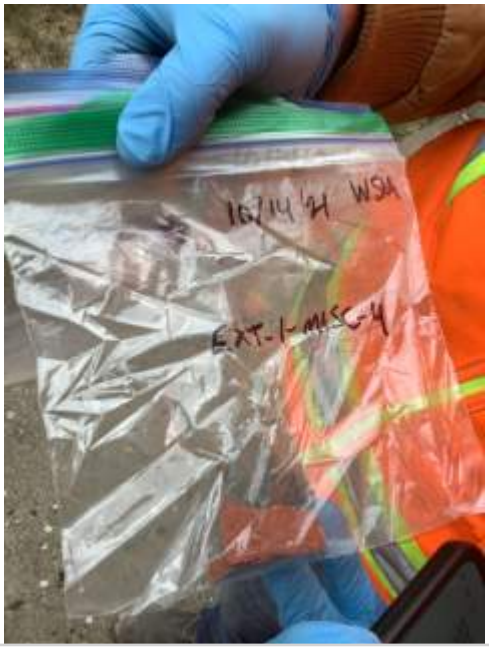
EXT-1-MISC-1

Additional Sample Notes:	Difficult to quantify material.

Sample ID:	**Sample Type:**	
EXT-1-MISC-4	MISC	
Sample Location:	**Detailed Sample Location:**	
East exterior side of structure.	East exterior side of room 101 south of stairwell exit door and north of windows.	
Sample Quantity:	15,000 square feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Red brick	Potential ACBM with potential for damage	No

Sample Photo:

EXT-1-MISC-4



Additional Sample Notes:	Difficult to quantify material.

Sample ID:	Sample Type:
EXT-1-PB-1	PB
Sample Location:	**Detailed Sample Location:**
West exterior support beams.	Southwest support beam of ash pit outside of room 101.
Sample Quantity:	272 linear feet.
Sample Color:	**XRF:**
Brownish red	1.47

Sample Photo:

EXT-1-PB-1

Additional Sample Notes:	Submitted sample to laboratory for analysis.

Sample ID:	**Sample Type:**
EXT-1-PB-2	PB
Sample Location:	**Detailed Sample Location:**
West exterior support beams.	Northeast support beam of ash pit outside of room 101.
Sample Quantity:	272 linear feet.
Sample Color:	**XRF:**
Brownish red	1.15

Sample Photo:

EXT-1-PB-2

Additional Sample Notes:	

Sample ID:	Sample Type:
EXT-2-PB-3	PB
Sample Location:	**Detailed Sample Location:**
West exterior side of room 101.	Vent on west exterior side of room 101 in between double doors.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Dark brown red	0.120

Sample Photo:

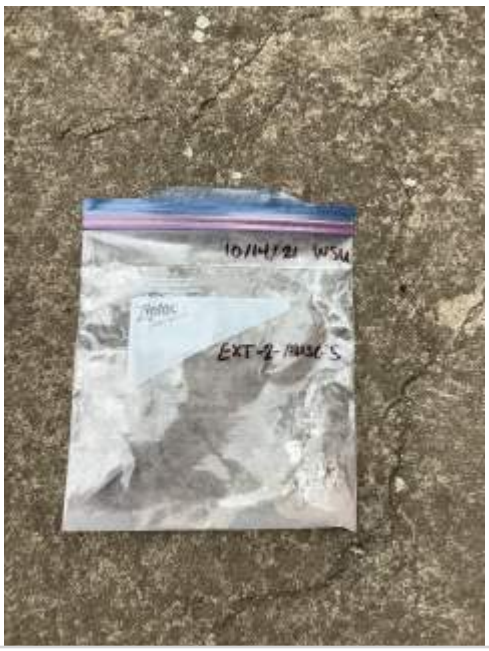
EXT-2-PB-3

Additional Sample Notes:	

Sample ID:	Sample Type:	
EXT-2-MISC-5	MISC	
Sample Location:	**Detailed Sample Location:**	
East exterior side of structure.	East exterior side of room 101 south of stairwell exit door and north of windows.	
Sample Quantity:	75,000 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray brick mortar	Potential ACBM with potential for damage	No

Sample Photo:

EXT-2-MISC-5



Additional Sample Notes:	Difficult to quantify material.

Sample ID:	Sample Type:	
EXT-2-MISC-2	MISC	
Sample Location:	**Detailed Sample Location:**	
West exterior side of structure.	West exterior side of room 101 north of double doors next to ash pit tower.	
Sample Quantity:	75,000 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Gray brick mortar	Potential ACBM with potential for damage	No

Sample Photo:

EXT-2-MISC-2

Additional Sample Notes:	Difficult to quantify material.

Sample ID:	**Sample Type:**	
EXT-3-MISC-3	MISC	
Sample Location:	**Detailed Sample Location:**	
West exterior side of southwest corner.	West exterior side of room 105 on the southwest cornered exterior.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing.	Potential ACBM with potential for damage	No

Sample Photo:

EXT-3-MISC-3

Additional Sample Notes:	

Sample ID:	Sample Type:	
EXT-3-MISC-6	MISC	
Sample Location:	**Detailed Sample Location:**	
East exterior side of structure.	South window on exterior east wall of room 101.	
Sample Quantity:	4,030 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
Window glazing	Potential ACBM with potential for damage	No

Sample Photo:

EXT-3-MISC-6

Additional Sample Notes:	

Sample ID:	Sample Type:
EXT-3-PB-4	PB
Sample Location:	**Detailed Sample Location:**
West exterior side of room 101.	Double doors on west exterior side of room 101.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Tan	0.058

Sample Photo:

EXT-3-PB-4

Additional Sample Notes:	

Sample ID:	Sample Type:
EXT-4-PB-5	PB
Sample Location:	**Detailed Sample Location:**
West exterior side of room 101.	Railing on west exterior side of room 101 in front of double doors.
Sample Quantity:	N/A
Sample Color:	**XRF:**
Green	0.173

Sample Photo:

EXT-4-PB-5

Additional Sample Notes:	

Sample ID:	Sample Type:	
EXT-4-MISC-7	MISC	
Sample Location:	**Detailed Sample Location:**	
East exterior side of structure.	North corner of east exterior wall of room 101 south of stairwell exit.	
Sample Quantity:	37 linear feet.	
Misc Sample Material:	**Sample Condition:**	**Sample Friable?:**
White brick caulking.	Potential ACBM with potential for damage	No

Sample Photo:

EXT-4-MISC-7

Additional Sample Notes:	

Sample ID:	Sample Type:
EXT-5-PB-6	PB
Sample Location:	**Detailed Sample Location:**
West exterior side of room 101.	Silver pipe on west exterior side of room 101 and south of double doors.
Sample Quantity:	25 linear feet.
Sample Color:	**XRF:**
Silver	1.213

Sample Photo:

Additional Sample Notes:	

Sample ID:	Sample Type:
EXT-6-PB-7	PB
Sample Location:	**Detailed Sample Location:**
West exterior side of room 101.	Blue gray pipe in corner of exterior side of room 101 and south of double doors.
Sample Quantity:	25 linear feet.
Sample Color:	**XRF:**
Blue gray	0.071

Sample Photo:

EXT-5-PB-6

Additional Sample Notes:	

Other Material Tracking

General Fixture Location:	Detailed Fixture Location:
Type of Fixture:	**Quantity:**
Condition:	**Additional Fixture Notes:**

Other Material Photo:

APPENDIX C

LABORATORY ANALYTICAL REPORTS

October 26, 2021

Emily Curtis
Maul Foster & Alongi, Inc.
109 E 13th St.
Vancouver, WA 98660

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2118225.00

Client Project: 0457.02.03-01
Location: N-A

Dear Mrs. Curtis,

Enclosed please find test results for the 30 sample(s) submitted to our laboratory for analysis on 10/19/2021.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Munaf Khan, Laboratory Director

Lab Code: 102063-0

Enc.: Sample Results

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116000 **Client Sample #: 1-1-TSI-1**
Location: N-A

Layer 1 of 2	**Description:** Off-white paper with woven fibers and metal foil			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Metal foil	Cellulose	85%	**None Detected ND**
		Glass fibers	7%	
Layer 2 of 2	**Description:** Yellow loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Glass resin	Glass fibers	99%	**None Detected ND**

Lab ID: 21116001 **Client Sample #: 1-1-TSI-2**
Location: N-A

Layer 1 of 2	**Description:** Off-white paper with woven fibers and metal foil			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Metal foil	Cellulose	83%	**None Detected ND**
		Glass fibers	10%	
Layer 2 of 2	**Description:** Yellow loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Glass resin	Glass fibers	98%	**None Detected ND**

Lab ID: 21116002 **Client Sample #: 1-2-TSI-3**
Location: N-A

Layer 1 of 2	**Description:** White flexible sheet vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder, Fine particles	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 2	**Description:** Yellow loose-fill fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Glass resin, Fine particles	Glass fibers 96%	**None Detected ND**

Lab ID: 21116003 **Client Sample #: 1-3-MISC-4**
Location: N-A

Layer 1 of 1	**Description:** Pale gray brittle material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler	Cellulose 1%	**Chrysotile 4%**

Lab ID: 21116004 **Client Sample #: 1-3-MISC-5**
Location: N-A

Layer 1 of 1	**Description:** Gray brittle crumbly material with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Paint	Cellulose <1%	**None Detected ND**

Lab ID: 21116005 **Client Sample #: 1-4-MISC-6**
Location: N-A

Layer 1 of 1	**Description:** Beige soft crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Fine particles	Glass fibers 32%	**None Detected ND**
		Cellulose 8%	

Lab ID: 21116006 **Client Sample #: 1-5-MISC-7**
Location: N-A

Layer 1 of 1	**Description:** Red paint coated hard brittle material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Granules, Paint	None Detected ND	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116007 **Client Sample #: 1-6-TSI-8**
Location: N-A

Layer 1 of 2	**Description:** Red paint coated woven fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Paint	Cellulose	88%	**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles	None Detected	ND	**Amosite 30%**

Lab ID: 21116008 **Client Sample #: 1-7-TSI-9**
Location: N-A

Layer 1 of 2	**Description:** White paper with woven fibers and metal foil			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Metal foil	Cellulose	75%	**None Detected ND**
		Glass fibers	7%	
Layer 2 of 2	**Description:** Yellow and pink loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Glass resin	Glass fibers	98%	**None Detected ND**

Lab ID: 21116009 **Client Sample #: 1-8-TSI-10**
Location: N-A

Layer 1 of 3	**Description:** White woven fibrous mesh with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Paint	Cotton yarn	90%	**None Detected ND**
Layer 2 of 3	**Description:** Pale gray crumbly powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Fine particles, Glass shots & debris	Cellulose	25%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

			Glass fibers 8%	
Layer 3 of 3	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles	Synthetic fibers 22%		**None Detected ND**

Lab ID: 21116010 **Client Sample #: 1-8-TSI-11**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous mesh with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Paint	Cotton yarn 85%		**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles	None Detected ND		**Chrysotile 35%**

Lab ID: 21116011 **Client Sample #: 1-8-TSI-12**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous cloth with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Paint	Cotton yarn 92%		**None Detected ND**
Layer 2 of 2	**Description:** Off-white fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Glass shots & debris	Glass fibers 35%		**Chrysotile 5%**

Lab ID: 21116012 **Client Sample #: 1-9-MISC-13**
Location: N-A

Layer 1 of 3	**Description:** White encapsulated woven fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Fine particles	Glass fibers 72%		**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 3	**Description:** Tan paper with woven fibers and metal foil			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Metal foil	Cellulose	72%	**None Detected ND**
		Glass fibers	8%	
Layer 3 of 3	**Description:** Yellow loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Glass resin, Fine particles	Glass fibers	98%	**None Detected ND**

Lab ID: 21116013 **Client Sample #: 1-8-TSI-14**
Location: N-A

Layer 1 of 2	**Description:** Orange paint coated woven fibrous mesh			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Paint	Cotton yarn	85%	**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles	None Detected	ND	**Amosite 38%**

Lab ID: 21116014 **Client Sample #: 1-10-TSI-15**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous mesh with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Paint	Glass fibers	95%	**None Detected ND**
Layer 2 of 2	**Description:** Off-white crumbly material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Glass shots & debris	Glass fibers	8%	**None Detected ND**

Lab ID: 21116015 **Client Sample #: 1-11-MISC-16**
Location: N-A

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 1	**Description:** Yellow loose-fill fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Glass Resin	Glass fibers 98%	**None Detected ND**

Lab ID: 21116016 **Client Sample #: 1-12-MISC-17**
Location: N-A

Layer 1 of 1	**Description:** Pale gray loose-fill fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles	Glass fibers 98%	**None Detected ND**

Lab ID: 21116017 **Client Sample #: 1-8-TSI-18**
Location: N-A

Layer 1 of 2	**Description:** Tan woven fibrous mesh with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Paint	Cotton yarn 90%	**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Mineral grains	Cellulose 2%	**Chrysotile 27%**
			Amosite 13%

Lab ID: 21116018 **Client Sample #: 1-13-MISC-19**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous cloth		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles	Glass fibers 96%	**None Detected ND**
Layer 2 of 2	**Description:** White loose-fill fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Glass resin, Fine particles	Glass fibers 98%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116019 **Client Sample #: 1-14-TSI-20**
Location: N-A

Layer 1 of 2 **Description:** White and tan woven fibrous mesh with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Fine particles	Cellulose 45%	**None Detected ND**
	Glass fibers 42%	

Layer 2 of 2 **Description:** White compacted powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	None Detected ND	**Chrysotile 28%**
		Amosite 12%

Lab ID: 21116020 **Client Sample #: 1-8-TSI-21**
Location: N-A

Layer 1 of 2 **Description:** Dark gray paint coated woven mesh

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles, Paint	Cotton yarn 92%	**None Detected ND**

Layer 2 of 2 **Description:** Off-white fine compacted powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	None Detected ND	**Amosite 37%**

Lab ID: 21116021 **Client Sample #: 1-13-MISC-22**
Location: N-A

Layer 1 of 2 **Description:** White woven fibrous cloth with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles, Paint	Glass fibers 95%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 2	**Description:** Yellow loose-fill fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Glass resin	Glass fibers 99%	**None Detected ND**

Lab ID: 21116022 **Client Sample #: 1-15-MISC-23**
Location: N-A

Layer 1 of 2	**Description:** Tan patterned vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Vinyl/Binder, Mineral grains	None Detected ND	**None Detected ND**
Layer 2 of 2	**Description:** Black asphaltic mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Asphalt/Binder	Cellulose 2%	**None Detected ND**

Lab ID: 21116023 **Client Sample #: 1-15-MISC-24**
Location: N-A

Layer 1 of 2	**Description:** Tan patterned vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Vinyl/Binder, Mineral grains	None Detected ND	**None Detected ND**
Layer 2 of 2	**Description:** Black asphaltic mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Asphalt/Binder	None Detected ND	**None Detected ND**

Lab ID: 21116024 **Client Sample #: 1-16-MISC-25**
Location: N-A

Layer 1 of 2	**Description:** Brown rubbery material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Rubber/Binder	None Detected ND	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 2	**Description:** Brown brittle mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	Wollastonite	4%	**None Detected ND**

Lab ID: 21116025 **Client Sample #: 1-16-MISC-26**
Location: N-A

Layer 1 of 2	**Description:** Brown rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Rubber/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Brown brittle mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Mastic/Binder	Wollastonite	3%	**None Detected ND**

Lab ID: 21116026 **Client Sample #: 1-17-MISC-27**
Location: N-A

Layer 1 of 2	**Description:** Pale gray brittle sandy material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Sand, Mica, Paint	Cellulose	3%	**None Detected ND**
Layer 2 of 2	**Description:** White chalky material with paper			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Gypsum/Binder	Cellulose	38%	**None Detected ND**

Lab ID: 21116027 **Client Sample #: 1-18-MISC-28**
Location: N-A

Layer 1 of 1	**Description:** Pale gray brittle sandy material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Sand, Mica, Paint	Cellulose	2%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118225.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116028 **Client Sample #: 1-19-MISC-29**
Location: N-A

Layer 1 of 1 **Description:** Pale gray compressed fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass shots & debris, Perlite, Paint	Cellulose 25%	**None Detected ND**
	Glass fibers 20%	

Lab ID: 21116029 **Client Sample #: 1-20-MISC-30**
Location: N-A

Layer 1 of 1 **Description:** Pale gray compressed fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass shots & debris, Perlite, Paint	Cellulose 22%	**None Detected ND**
	Glass fibers 18%	

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/22/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number 2118225.00
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	21116000	1-1-TSI-1		A
2	21116001	1-1-TSI-2		A
3	21116002	1-2-TSI-3		A
4	21116003	1-3-MISC-4		A
5	21116004	1-3-MISC-5		A
6	21116005	1-4-MISC-6		A
7	21116006	1-5-MISC-7		A
8	21116007	1-6-TSI-8		A
9	21116008	1-7-TSI-9		A
10	21116009	1-8-TSI-10		A
11	21116010	1-8-TSI-11		A
12	21116011	1-8-TSI-12		A
13	21116012	1-9-MISC-13		A
14	21116013	1-8-TSI-14		A
15	21116014	1-10-TSI-15		A
16	21116015	1-11-MISC-16		A
17	21116016	1-12-MISC-17		A
18	21116017	1-8-TSI-18		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Nick Ly		NVL	10/22/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 10:49 AM
Entered By: Fatima Khan

ASBESTOS LABORATORY SERVICES

NVL

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number **2118225.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
19	21116018	1-13-MISC-19		A
20	21116019	1-14-TSI-20		A
21	21116020	1-8-TSI-21		A
22	21116021	1-13-MISC-22		A
23	21116022	1-15-MISC-23		A
24	21116023	1-15-MISC-24		A
25	21116024	1-16-MISC-25		A
26	21116025	1-16-MISC-26		A
27	21116026	1-17-MISC-27		A
28	21116027	1-18-MISC-28		A
29	21116028	1-19-MISC-29		A
30	21116029	1-20-MISC-30		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Nick Ly		NVL	10/22/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 10:49 AM
Entered By: Fatima Khan

2118225

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi, Inc.
Address: 2815 2nd Ave #540, Seattle, WA 98121
Phone: 503-410-1524
Project Manager: Matt Hoffman
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions: Report to Emily Curtis
❑ Call ( ) -
❑ Fax ( ) -
❑ Email: ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	1-1-TSI-1	Condensate pipe in northwest corner of room	
2	1-1-TSI-2	" "	
3	1-2-TSI-3	Condensate pipe elbow	
4	1-3-MISC-4	Window glazing	
5	1-3-MISC-5	" "	
6	1-4-MISC-6	Tan cementitious material	
7	1-5-MISC-7	Red brick	
8	1-6-TSI-8	Red pipe	
9	1-7-TSI-9	Silver pipe	
10	1-8-TSI-10	Silver pipe on ~~boiler~~ SEAM insulation on boiler	
11	1-8-TSI-11	" "	
12	1-8-TSI-12	" "	
13	1-9-MISC-13	Insulation on sink	
14	1-8-TSI-14	Orange pipe in SE corner of room	
15	1-10-TSI-15	Gray insulation and fabric	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson	Connor	MFA	10/15/21	0800
Relinquish by	Connor Anderson	Connor	MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by	Katherine		NVL Labs	10/19/21	10:10
Analyzed by					
Called by					
Faxed/Email by					

Fedex

2118225

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi, Inc.
Address: 2815 2nd Ave #340, Seattle, WA 98121
Phone: 503-410-1524
Project Manager: Matt Hoffman
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ Other
- ❑ TEM (AHERA)
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions: Report to Emily Curtis
❑ Call ( ) -
❑ Fax ( ) -
❑ Email: ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	1-11-MISC-16	Tan soundproofing material	
2	1-12-MISC-17	Gray fibrous material	
3	1-8-TSI-18	Gray duct insulation	
4	1-13-MISC-19	Tan soundproofing material	
5	1-14-TSI-20	White patch on pipe	
6	1-8-TSI-21	Dark gray pipe insulation	
7	1-13-MISC-22	Gray fabric material	
8	1-15-MISC-23	Tan 12"x12" vinyl floor tile w/ black mastic	
9	1-15-MISC-24	" "	
10	1-16-MISC-25	Brown base cove w/ brown mastic	
11	1-16-MISC-26	" "	
12	1-17-MISC-27	Light gray wallboard	
13	1-18-MISC-28	Light gray cementitious wallboard	
14	1-19-MISC-29	White 18"x36" inch ceiling tile w/ randomized stippled pattern	
15	1-20-MISC-30	White 18"x36" inch ceiling tile w/ uniform stippled pattern	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson		MFA	10/15/21	0800
Relinquish by	Connor Anderson		MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by					
Analyzed by					
Called by					
Faxed/Email by					

2

2118225

Kelly Au Vu

From: Emily Curtis <ecurtis@maulfoster.com>
Sent: Tuesday, October 19, 2021 10:10 AM
To: Client Services
Subject: Project Information

Hello,

Please use project number 0457.02.03-01 and 5-day turn.

Thanks,

EMILY CURTIS | MAUL FOSTER & ALONGI, INC.
Project Health, Safety, and Environmental Specialist
pronouns: she/her
m. 503 410 1524 | d. 503 501 5233

MAUL FOSTER ALONGI

3140 NE Broadway Street, Portland, OR 97232
www.maulfoster.com

October 25, 2021

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

Emily Curtis
Maul Foster & Alongi, Inc.
109 E 13th St.
Vancouver, WA 98660

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2118227.00

Client Project: 0457.02.03-01
Location: N-A

Dear Mrs. Curtis,

Enclosed please find test results for the 30 sample(s) submitted to our laboratory for analysis on 10/19/2021.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

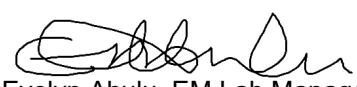
For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,



Evelyn Ahulu, EM Lab Manager

NVLAP
Lab Code: 102063-0

Enc.: Sample Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116036 **Client Sample #: 1-19-MISC-31**
Location: N-A

Layer 1 of 1 **Description:** Beige fibrous material with white paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Glass debris, Binder/Filler	Glass fibers 45%	**None Detected ND**
	Cellulose 20%	

Lab ID: 21116037 **Client Sample #: 1-8-TSI-32**
Location: N-A35

Layer 1 of 1 **Description:** White fibrous material with painted cloth wrap

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Calcareous binder	Cellulose 30%	**Chrysotile 50%**

Lab ID: 21116038 **Client Sample #: 1-21-MISC-33**
Location: N-A

Layer 1 of 1 **Description:** Blue laminate with clear adhesive

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Laminate/binder, Fine grains, Adhesive/Binder	Cellulose 56%	**None Detected ND**

Lab ID: 21116039 **Client Sample #: 1-22-MISC-34**
Location: N-A

Layer 1 of 2 **Description:** Brown rubbery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Rubber/Synthetic Binder	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Brown brittle mastic

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles, Mastic/Binder	Cellulose 2%	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116040 **Client Sample #: 1-22-MISC-35**
Location: N-A

Layer 1 of 2	**Description:** Brown rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Rubber/Synthetic Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Clear soft adhesive			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Adhesive/Binder			**None Detected ND**

Lab ID: 21116041 **Client Sample #: 1-23-MISC-36**
Location: N-A

Layer 1 of 1	**Description:** Gray cementitious material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Calcareous binder	None Detected	ND	**None Detected ND**

Lab ID: 21116042 **Client Sample #: 1-24-MISC-37**
Location: N-A

Layer 1 of 3	**Description:** Beige/light gray vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 3	**Description:** Tan brittle mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Mastic/Binder	Cellulose	<1%	**None Detected ND**
Layer 3 of 3	**Description:** Light gray sandy material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Calcareous particles, Binder/Filler	Cellulose	6%	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116043 **Client Sample #: 1-15-MISC-38**
Location: N-A

Layer 1 of 2	**Description:** Beige vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Black asphaltic mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Asphalt/Binder	Cellulose	<1%	**Chrysotile 6%**

Lab ID: 21116044 **Client Sample #: 1-25-MISC-39**
Location: N-A

Layer 1 of 2	**Description:** Black rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Rubber/Synthetic Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Clear soft adhesive			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Adhesive/Binder	Cellulose	<1%	**None Detected ND**

Lab ID: 21116045 **Client Sample #: 1-26-MISC-40**
Location: N-A

Layer 1 of 2	**Description:** Light brown rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Rubber/Synthetic Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Clear soft adhesive			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Adhesive/Binder	Cellulose	<1%	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116046 **Client Sample #: 1-27-MISC-41**
Location: N-A

Layer 1 of 2	**Description:** Brown vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected ND	**Chrysotile 3%**
Layer 2 of 2	**Description:** Black asphaltic mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Asphalt/Binder	Cellulose <1%	**None Detected ND**

Lab ID: 21116047 **Client Sample #: 1-28-MISC-42**
Location: N-A

Layer 1 of 2	**Description:** Brown vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected ND	**Chrysotile 3%**
Layer 2 of 2	**Description:** Black asphaltic mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Asphalt/Binder	Cellulose 3%	**None Detected ND**

Lab ID: 21116048 **Client Sample #: 1-18-MISC-43**
Location: N-A

Layer 1 of 2	**Description:** White chalky material with paper		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Gypsum/Binder	Cellulose 24%	**None Detected ND**
Layer 2 of 2	**Description:** Light gray cementitious material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Calcareous particles, Binder/Filler	Cellulose 3%	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116049 **Client Sample #: 1-29-MISC-44**
Location: N-A

Layer 1 of 2 **Description:** White hard plastic like material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Plastic, Binder/Filler	Glass fibers 12%	**None Detected ND**

Layer 2 of 2 **Description:** Yellow soft mastic

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles, Mastic/Binder	Cellulose <1%	**None Detected ND**

Lab ID: 21116050 **Client Sample #: 1-3-MISC-45**
Location: N-A

Layer 1 of 1 **Description:** White crumbly material with green paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Binder/Filler	Cellulose <1%	**None Detected ND**

Lab ID: 21116051 **Client Sample #: 1-1-TSI-46**
Location: N-A

Layer 1 of 1 **Description:** Yellow fibrous material with metal foil

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Metal foil, Glass debris	Glass fibers 66%	**None Detected ND**
	Cellulose 20%	

Lab ID: 21116052 **Client Sample #: 1-25-MISC-47**
Location: N-A

Layer 1 of 2 **Description:** Black rubbery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Rubber/Synthetic Binder	None Detected ND	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 2	**Description:** Clear soft adhesive			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Adhesive/Binder	Cellulose	3%	**None Detected ND**

Lab ID: 21116053 **Client Sample #: 1-28-MISC-48**
Location: N-A

Layer 1 of 2	**Description:** Light brown vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected	ND	**Chrysotile 4%**
Layer 2 of 2	**Description:** Black asphaltic fibrous backing with brown mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Asphalt/Binder	Cellulose	65%	**None Detected ND**

Lab ID: 21116054 **Client Sample #: 1-30-MISC-49**
Location: N-A

Layer 1 of 2	**Description:** Black rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Rubber/Synthetic Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Beige soft mastic with tan color paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Paint, Fine particles, Mastic/Binder	Cellulose	<1%	**None Detected ND**

Lab ID: 21116055 **Client Sample #: 2-1-MISC-1**
Location: N-A

Layer 1 of 2	**Description:** Beige vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 2	**Description:** Black/gray asphaltic mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Asphalt/Binder	Cellulose 12%	**None Detected ND**

Lab ID: 21116056 **Client Sample #: 2-1-MISC-2**

Location: N-A

Layer 1 of 5	**Description:** Beige vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected ND	**None Detected ND**
Layer 2 of 5	**Description:** Light gray sandy material with yellow mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Calcareous particles, Mastic/Binder	Cellulose 4%	**None Detected ND**
Layer 3 of 5	**Description:** Black asphaltic mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Asphalt/Binder	Cellulose <1%	**None Detected ND**
Layer 4 of 5	**Description:** Brown vinyl tile		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected ND	**Chrysotile 8%**
Layer 5 of 5	**Description:** Black asphaltic fibrous felt with mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Asphalt/Binder, Fine particles	Cellulose 65%	**None Detected ND**

Lab ID: 21116057 **Client Sample #: 2-2-MISC-3**

Location: N-A

Layer 1 of 1	**Description:** Laminate beige color with clear adhesive		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Laminate/binder, Adhesive/Binder, Fine particles	Cellulose 60%	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116058 **Client Sample #: 2-3-MISC-4**
Location: N-A

Layer 1 of 4	**Description:** Light brown vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	Cellulose	<1%	**None Detected ND**
Layer 2 of 4	**Description:** Black asphaltic mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Asphalt/Binder	Cellulose	3%	**None Detected ND**
Layer 3 of 4	**Description:** Brown vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected	ND	**Chrysotile 8%**
Layer 4 of 4	**Description:** Black asphaltic mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Asphalt/Binder	None Detected	ND	**None Detected ND**

Lab ID: 21116059 **Client Sample #: 2-3-MISC-5**
Location: N-A

Layer 1 of 2	**Description:** Light brown vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	Cellulose	<1%	**None Detected ND**
Layer 2 of 2	**Description:** Black asphaltic mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Asphalt/Binder	Cellulose	<1%	**None Detected ND**

Lab ID: 21116060 **Client Sample #: 2-4-MISC-6**
Location: N-A

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 2	**Description:** Light brown vinyl tile			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Mineral grains, Vinyl/Binder	None Detected	ND	**Chrysotile 3%**
Layer 2 of 2	**Description:** Black asphaltic fibrous felt with mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Asphalt/Binder	Cellulose	56%	**Chrysotile 6%**

Lab ID: 21116061 **Client Sample #: 2-5-MISC-7**
Location: N-A

Layer 1 of 2	**Description:** Black rubbery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Rubber/Synthetic Binder	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Tan soft mastic			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Mastic/Binder	Cellulose	<1%	**None Detected ND**

Lab ID: 21116062 **Client Sample #: 2-6-TSI-8**
Location: N-A

Layer 1 of 1	**Description:** Yellow fibrous material with metal foil wrap			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Metal foil, Gypsum/Binder	Glass fibers	64%	**None Detected ND**
		Cellulose	20%	

Lab ID: 21116063 **Client Sample #: 2-7-MISC-9**
Location: N-A

Layer 1 of 1	**Description:** Light gray soft rubbery material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Paint, Caulking compound, Fine particles	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118227.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116064 **Client Sample #: 2-7-MISC-10**
Location: N-A

Layer 1 of 1 **Description:** Light gray soft rubbery material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Caulking compound, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 21116065 **Client Sample #: 2-8-MISC-11**
Location: N-A

Layer 1 of 2 **Description:** White chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Gypsum/Binder	Cellulose 22%	**None Detected ND**

Layer 2 of 2 **Description:** Tan chalky material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Mica, Gypsum/Binder	Cellulose 3%	**None Detected ND**

Sampled by: Client
Analyzed by: Munaf Khan **Date:** 10/25/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

NVL

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number 2118227.00
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	21116036	1-19-MISC-31		A
2	21116037	1-8-TSI-32		A
3	21116038	1-21-MISC-33		A
4	21116039	1-22-MISC-34		A
5	21116040	1-22-MISC-35		A
6	21116041	1-23-MISC-36		A
7	21116042	1-24-MISC-37		A
8	21116043	1-15-MISC-38		A
9	21116044	1-25-MISC-39		A
10	21116045	1-26-MISC-40		A
11	21116046	1-27-MISC-41		A
12	21116047	1-28-MISC-42		A
13	21116048	1-18-MISC-43		A
14	21116049	1-29-MISC-44		A
15	21116050	1-3-MISC-45		A
16	21116051	1-1-TSI-46		A
17	21116052	1-25-MISC-47		A
18	21116053	1-28-MISC-48		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Munaf Khan		NVL	10/25/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 10:56 AM
Entered By: Fatima Khan

ASBESTOS LABORATORY SERVICES

NVL

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number **2118227.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
19	21116054	1-30-MISC-49		A
20	21116055	2-1-MISC-1		A
21	21116056	2-1-MISC-2		A
22	21116057	2-2-MISC-3		A
23	21116058	2-3-MISC-4		A
24	21116059	2-3-MISC-5		A
25	21116060	2-4-MISC-6		A
26	21116061	2-5-MISC-7		A
27	21116062	2-6-TSI-8		A
28	21116063	2-7-MISC-9		A
29	21116064	2-7-MISC-10		A
30	21116065	2-8-MISC-11		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Munaf Khan		NVL	10/25/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 10:56 AM
Entered By: Fatima Khan

2118227

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi
Address: 2815 2nd Ave #540, Seattle, WA 98121
Phone: 503-410-1524

Project Manager: Matt Hoffman
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions
❑ Call ( ) - ❑ Fax ( ) - ❑ Email

Total Number of Samples ____

	Sample ID	Description	A/R
1	1-19-MISC-31	White 18"x36" ceiling tile w/ randomized stipple pattern	
2	1-8-TSI-32	White pipe insulation	
3	1-21-MISC-33	Gray blue laminate counter top w/ black and green mastic	
4	1-22-MISC-34	Dark Brown base cove w/ brown mastic	
5	1-22-MISC-35	Dark Brown base cove w/ brown mastic	
6	1-23-MISC-36	Gray cementitious patching material	
7	1-24-MISC-37	Light Gray 12"x12" vinyl flooring tile w/ gray mastic	
8	1-15-MISC-38	Tan 12"x12" Vinyl floor tile w/ black mastic	
9	1-25-MISC-39	Black Transition strip w/ Brown mastic	
10	1-26-MISC-40	Rubber stair tread w/ clear mastic	
11	1-27-MISC-41	Dark brown patterned 9"x9" vinyl floor tile w/ black mastic	
12	1-28-MISC-42	Light tan patterned 9"x9" vinyl floor tile w/ black mastic	
13	1-18-MISC-43	White drywall w/ cementitious wallboard	
14	1-29-MISC-44	White plastic waterproofing material w/ pale yellow adhesive	
15	1-3-MISC-45	Window glazing	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson	Connor	MFA	10/15/21	0800
Relinquish by	Connor Anderson	Connor	MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by	Samantha		NVLLabs	10/19/21	10:10
Analyzed by					
Called by					
Faxed/Email by					

fedex

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi
Address: 2815 2nd Ave #540, Seattle, WA 98121
Phone: 503-410-1524

Project Manager: Matt Hoffman
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
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- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions: Report to Emily Curtis
❑ Call ( ) - ❑ Fax ( ) - ❑ Email ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	1-1-TSI-46	White pipe insulation	
2	1-25-MISC-47	Black transition strip w/ brown mastic	
3	1-28-MISC-48	Light tan patterned 9"x9" vinyl floor tile w/ black mastic	
4	1-30-MISC-49	Black base cove w/ tan mastic	
5	2-1-MISC-1	White stipple pattern 12"x12" vinyl floor tile w/ black mastic	
6	2-1-MISC-2	White stipple pattern 12"x12" vinyl floor tile w/ black mastic	
7	2-2-MISC-3	Tan laminate countertop w/ clear mastic	
8	2-3-MISC-4	Light brown patterned 9"x9" vinyl floor tile w/ black mastic	
9	2-3-MISC-5	Light brown patterned 9"x9" vinyl floor tile w/ black mastic	
10	2-4-MISC-6	Brown stripped pattern 9"x9" vinyl floor tile w/ black mastic	
11	2-5-MISC-7	Black base cove w/ tan mastic	
12	2-6-TSI-8	Yellow pipe insulation w/ white papery cover	
13	2-7-MISC-9	Window glazing	
14	2-7-MISC-10	Window glazing	
15	2-8-MISC-11	White drywall w/ cementitious wallboard	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson		MFA	10/15/21	0800
Relinquish by	Connor Anderson		MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by			NVL Labs	10/19/21	10:10 am Fedex
Analyzed by					
Called by					
Faxed/Email by					

Kelly Au Vu

From: Emily Curtis <ecurtis@maulfoster.com>
Sent: Tuesday, October 19, 2021 10:10 AM
To: Client Services
Subject: Project Information

Hello,

Please use project number 0457.02.03-01 and 5-day turn.

Thanks,

EMILY CURTIS | MAUL FOSTER & ALONGI, INC.
Project Health, Safety, and Environmental Specialist
pronouns: she/her
m. 503 410 1524 | d. 503 501 5233

MAUL FOSTER ALONGI

3140 NE Broadway Street, Portland, OR 97232
www.maulfoster.com

October 26, 2021

Emily Curtis
Maul Foster & Alongi, Inc.
109 E 13th St.
Vancouver, WA 98660

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2118233.00

Client Project: 0457.02.03-01
Location: N-A

Dear Mrs. Curtis,

Enclosed please find test results for the 30 sample(s) submitted to our laboratory for analysis on 10/19/2021.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Munaf Khan, Laboratory Director

Lab Code: 102063-0

Enc.: Sample Results

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116110 **Client Sample #: 2-8-MISC-12**
Location: N-A

Layer 1 of 2	**Description:** Pale gray brittle sandy material with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Calcareous binder, Sand, Mineral grains, Paint	Cellulose <1%	**None Detected ND**
Layer 2 of 2	**Description:** Thin layer of Black asphaltic material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Asphalt/Binder	None Detected ND	**None Detected ND**

Lab ID: 21116111 **Client Sample #: 2-9-MISC-13**
Location: N-A

Layer 1 of 2	**Description:** Brown rubbery material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Rubber/Binder, Fine grains	None Detected ND	**None Detected ND**
Layer 2 of 2	**Description:** Brown brittle mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Mastic/Binder	Talc fibers 3%	**None Detected ND**
		Cellulose <1%	

Lab ID: 21116112 **Client Sample #: 2-10-TSI-14**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous meshl with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Paint, Fine particles	Cotton yarn 90%	**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles	None Detected ND	**Chrysotile 25%**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Amosite 9%

Lab ID: 21116113 **Client Sample #: 2-11-MISC-15**
Location: N-A
Layer 1 of 1 **Description:** Red hard brittle crumbly material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Mineral grains	None Detected ND	**None Detected ND**

Lab ID: 21116114 **Client Sample #: 2-12-MISC-16**
Location: N-A
Layer 1 of 1 **Description:** Pale gray hard brittle sandy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Sand, Mineral grains, Mica	None Detected ND	**None Detected ND**

Lab ID: 21116115 **Client Sample #: 2-11-MISC-17**
Location: N-A
Layer 1 of 1 **Description:** Red hard brittle crumbly material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Mineral grains	None Detected ND	**None Detected ND**

Lab ID: 21116116 **Client Sample #: 2-12-MISC-18**
Location: N-A
Layer 1 of 1 **Description:** Pale gray hard brittle sandy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Sand, Mineral grains, Mica	None Detected ND	**None Detected ND**

Lab ID: 21116117 **Client Sample #: 2-13-TSI-19**
Location: N-A

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 1	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles	Cellulose	28%	**None Detected ND**
		Synthetic fibers	7%	

Lab ID: 21116118 **Client Sample #: 2-13-TSI-20**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous mesh with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint, Fine particles	Cotton yarn	92%	**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Glass debris	Cellulose	32%	**None Detected ND**
		Synthetic fibers	5%	

Lab ID: 21116119 **Client Sample #: 2-14-TSI-21**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous cloth with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint	Glass fibers	90%	**None Detected ND**
Layer 2 of 2	**Description:** White loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Glass Resin	Glass fibers	99%	**None Detected ND**

Lab ID: 21116120 **Client Sample #: 2-13-TSI-22**
Location: N-A

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 2	**Description:** White woven fibrous mesh with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint	Cotton yarn	93%	**None Detected ND**
Layer 2 of 2	**Description:** White and pale gray compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Glass debris	Synthetic fibers	25%	**None Detected ND**
		Cellulose	5%	
		Glass fibers	3%	

Lab ID: 21116121 **Client Sample #: 2-13-TSI-23**
Location: N-A

Layer 1 of 2	**Description:** Tan woven fibrous mesh with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint	Cellulose	85%	**None Detected ND**
Layer 2 of 2	**Description:** Pale gray compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Glass shots & debris	Glass fibers	18%	**Amosite 23%**
				Chrysotile 15%

Lab ID: 21116122 **Client Sample #: 2-14-TSI-24**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous cloth			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler	Glass fibers	95%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 2 **Description:** White loose-fill fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Glass resin	Glass fibers 98%	**None Detected ND**

Lab ID: 21116123 **Client Sample #: 2-13-TSI-25**

Location: N-A

Layer 1 of 1 **Description:** Off-white compacted fine powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	Glass fibers 5%	**Amosite 30%**

Lab ID: 21116124 **Client Sample #: 2-15-TSI-26**

Location: N-A

Layer 1 of 3 **Description:** Tan woven fibrous mesh with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint	Cellulose 88%	**None Detected ND**

Layer 2 of 3 **Description:** White woven fibrous mesh

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles	Glass fibers 90%	**None Detected ND**

Layer 3 of 3 **Description:** Off-white compacted fine powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	None Detected ND	**Amosite 23%**
		Chrysotile 12%

Lab ID: 21116125 **Client Sample #: 2-15-TSI-27**

Location: N-A

Layer 1 of 2 **Description:** Tan and white woven fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Fine particles	Cellulose 45%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

			Glass fibers 40%	
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles	None Detected ND		**Chrysotile 22%**
				Amosite 18%
				Crocidolite 3%

Lab ID: 21116126 **Client Sample #: 2-16-TSI-28**

Location: N-A

Layer 1 of 2	**Description:** Tan woven fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint, Fine particles	Cellulose 85%		**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Mineral grains	None Detected ND		**Chrysotile 25%**
				Amosite 13%

Lab ID: 21116127 **Client Sample #: 2-16-TSI-29**

Location: N-A

Layer 1 of 2	**Description:** Tan and white woven fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint, Fine particles	Cellulose 48%		**None Detected ND**
			Glass fibers 45%	
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Mineral grains	None Detected ND		**Chrysotile 28%**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Amosite 18%

Lab ID: 21116128 **Client Sample #: 2-13-TSI-30**

Location: N-A

Layer 1 of 2 **Description:** Tan woven fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Fine particles	Cellulose 80%	**None Detected ND**

Layer 2 of 2 **Description:** White compacted fine powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Fine particles	None Detected ND	**Chrysotile 28%**
		Amosite 15%

Lab ID: 21116129 **Client Sample #: 2-17-TSI-31**

Location: N-A

Layer 1 of 2 **Description:** Off-white paper with woven fibers and metal foil

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Metal foil	Cellulose 82%	**None Detected ND**
	Glass fibers 8%	

Layer 2 of 2 **Description:** Yellow loose-fill fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Glass debris, Fine particles	Glass fibers 95%	**None Detected ND**

Lab ID: 21116130 **Client Sample #: 2-17-TSI-32**

Location: N-A

Layer 1 of 3 **Description:** Off-white paper with woven fibers and metal foil

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Metal foil	Cellulose 78%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

			Glass fibers 10%	
Layer 2 of 3	**Description:** White flexible sheet vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Vinyl/Binder	None Detected ND		**None Detected ND**
Layer 3 of 3	**Description:** Yellow loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Glass resin	Glass fibers 98%		**None Detected ND**

Lab ID: 21116131 **Client Sample #: 2-7-MISC-33**
Location: N-A

Layer 1 of 1	**Description:** Off-white brittle material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint	Cellulose <1%		**Chrysotile 3%**

Lab ID: 21116132 **Client Sample #: 3-1-TSI-1**
Location: N-A

Layer 1 of 2	**Description:** Beige woven fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Paint, Fine particles	Cellulose 42%		**None Detected ND**
		Glass fibers 38%		
Layer 2 of 2	**Description:** Pale gray compacted brittle material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Fine particles, Glass shots & debris	Glass fibers 15%		**None Detected ND**
		Cellulose 2%		

Lab ID: 21116133 **Client Sample #: 3-1-TSI-2**
Location: N-A

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 2	**Description:** Beige woven fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Paint, Fine particles	Cotton yarn	90%	**None Detected ND**
Layer 2 of 2	**Description:** White compacted fine powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles	Cellulose	22%	**None Detected ND**
		Synthetic fibers	8%	

Lab ID: 21116134 **Client Sample #: 3-2-TSI-3**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous mesh			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles	Glass fibers	98%	**None Detected ND**
Layer 2 of 2	**Description:** White loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Glass resin, Fine particles	Glass fibers	99%	**None Detected ND**

Lab ID: 21116135 **Client Sample #: 3-3-TSI-4**
Location: N-A

Layer 1 of 2	**Description:** Tan woven fibrous mesh with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Paint, Fine particles	Cellulose	88%	**None Detected ND**
Layer 2 of 2	**Description:** Off-white brittle crumbly material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Glass shots & debris	Glass fibers	7%	**None Detected ND**
		Cellulose	3%	

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116136 **Client Sample #: 3-1-TSI-5**

Location: N-A

Layer 1 of 3 **Description:** White woven fibrous mesh with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Fine particles	Glass fibers 85%	**None Detected ND**

Layer 2 of 3 **Description:** Tan woven fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Fine particles	Glass fibers 90%	**None Detected ND**

Layer 3 of 3 **Description:** White compacted crumbly powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles	Hair 7%	**None Detected ND**
	Cellulose 5%	

Lab ID: 21116137 **Client Sample #: 3-2-TSI-6**

Location: N-A

Layer 1 of 2 **Description:** White woven fibrous mesh with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Fine particles	Glass fibers 85%	**None Detected ND**

Layer 2 of 2 **Description:** White loose-fill fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Glass resin, Fine particles	Glass fibers 99%	**None Detected ND**

Lab ID: 21116138 **Client Sample #: 3-1-TSI-7**

Location: N-A

Layer 1 of 3 **Description:** Tan woven fibrous mesh with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Fine particles	Cellulose 92%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118233.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 3	**Description:** Off-white compacted crumbly powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Fine particles, Glass shots & debris	Glass fibers	25%	**None Detected ND**
		Cellulose	5%	
Layer 3 of 3	**Description:** Blue and white flexible sheet vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder	None Detected	ND	**None Detected ND**

Lab ID: 21116139 **Client Sample #: 3-4-TSI-8**

Location: N-A

Layer 1 of 2	**Description:** Off-white paper with woven fibers and metal foil			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Metal foil	Cellulose	65%	**None Detected ND**
		Glass fibers	12%	
Layer 2 of 2	**Description:** Tan loose-fill fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Glass resin	Glass fibers	99%	**None Detected ND**

Sampled by: Client
Analyzed by: Nick Ly **Date:** 10/20/2021
Reviewed by: Munaf Khan **Date:** 10/26/2021

Munaf Khan, Laboratory Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number **2118233.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	21116110	2-8-MISC-12		A
2	21116111	2-9-MISC-13		A
3	21116112	2-10-TSI-14		A
4	21116113	2-11-MISC-15		A
5	21116114	2-12-MISC-16		A
6	21116115	2-11-MISC-17		A
7	21116116	2-12-MISC-18		A
8	21116117	2-13-TSI-19		A
9	21116118	2-13-TSI-20		A
10	21116119	2-14-TSI-21		A
11	21116120	2-13-TSI-22		A
12	21116121	2-13-TSI-23		A
13	21116122	2-14-TSI-24		A
14	21116123	2-13-TSI-25		A
15	21116124	2-15-TSI-26		A
16	21116125	2-15-TSI-27		A
17	21116126	2-16-TSI-28		A
18	21116127	2-16-TSI-29		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Nick Ly		NVL	10/20/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 11:24 AM
Entered By: Fatima Khan

ASBESTOS LABORATORY SERVICES

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number **2118233.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
19	21116128	2-13-TSI-30		A
20	21116129	2-17-TSI-31		A
21	21116130	2-17-TSI-32		A
22	21116131	2-7-MISC-33		A
23	21116132	3-1-TSI-1		A
24	21116133	3-1-TSI-2		A
25	21116134	3-2-TSI-3		A
26	21116135	3-3-TSI-4		A
27	21116136	3-1-TSI-5		A
28	21116137	3-2-TSI-6		A
29	21116138	3-1-TSI-7		A
30	21116139	3-4-TSI-8		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Nick Ly		NVL	10/20/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 11:24 AM
Entered By: Fatima Khan

2118233

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY • MANAGEMENT • TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Tin
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company Maul Foster & Alongi
Address 2815 2nd Ave #510
Seattle, WA 98121
Phone 503-410-1524

Project Manager Matt Hoffman
Cell ( ) -
Email
Fax ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions Report to Emily Curtis
❑ Call ( ) -
❑ Fax ( ) -
❑ Email ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	2-8-MISC-12	White drywall w/ cementitious wallboard	
2	2-9-MISC-13	Brown base cove w/ brown mastic	
3	2-10-TSI-14	White pipe insulation w/ orange covering	
4	2-11-MISC-15	Red 12"x12" brick	
5	2-12-MISC-16	Gray brick mortar	
6	2-11-MISC-17	Red 12"x12" brick	
7	2-12-MISC-18	Gray brick mortar	
8	2-13-TSI-19	White pipe insulation w/ silver fabric covering	
9	2-13-TSI-20	White pipe insulation w/ silver fabric covering	
10	2-14-TSI-21	White fabric pipe insulation	
11	2-13-TSI-22	White pipe insulation w/ fabric covering	
12	2-13-TSI-23	White pipe insulation w/ fabric covering	
13	2-14-TSI-24	White fabric pipe insulation	
14	2-13-TSI-25	White pipe insulation w/ red painted fabric covering	
15	2-15-TSI-26	White pipe insulation w/ white fabric wrapping	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson		MFA	10/15/21	0800
Relinquish by	Connor Anderson		MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by				10/19/21	10:10a
Analyzed by					
Called by					
Faxed/Email by					

2118233

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi
Address: 2815 2nd Ave #5210, Seattle, WA 98121
Phone: 503-410-1524

Project Manager: Matt Hoffman (CA Hoffman)
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions: Report to Emily Curtis
❑ Call ( ) - ❑ Fax ( ) - ❑ Email ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	2-15-TSI-27	White pipe insulation w/ white fabric wrapping	
2	2-16-TSI-28	White boiler insulation w/ silver painted covering	
3	2-16-TSI-29	White boiler insulation w/ white patch covering	
4	2-13-TSI-30	White pipe insulation w/ fabric covering	
5	2-17-TSI-31	Yellow pipe insulation w/ white covering	
6	2-17-TSI-32	Yellow pipe insulation w/ white covering	
7	2-7-MISC-33	Window glazing	
8	3-1-TSI-1	White insulation with silver wrapping on boiler	
9	3-1-TSI-2	White pipe insulation with white wrapping	
10	3-2-TSI-3	Fabric insulation on pipe coming off of boiler	
11	3-3-TSI-4	White insulation on mechanical part	
12	3-1-TSI-5	White pipe insulation with white wrapping	
13	3-2-TSI-6	White pipe insulation with silver wrapping	
14	3-1-TSI-7	White vent insulation with white wrapping	
15	3-4-TSI-8	Yellow insulation w/ white wrapping	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson	Connor	MFA	10/15/21	0800
Relinquish by	Connor Anderson	Connor	MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by	[illegible]	[illegible]	NVL Labs	10/19/21	noon [illegible]
Analyzed by					
Called by					
Faxed/Email by					

2118233

Kelly Au Vu

From: Emily Curtis <ecurtis@maulfoster.com>
Sent: Tuesday, October 19, 2021 10:10 AM
To: Client Services
Subject: Project Information

Hello,

Please use project number 0457.02.03-01 and 5-day turn.

Thanks,

EMILY CURTIS | MAUL FOSTER & ALONGI, INC.
Project Health, Safety, and Environmental Specialist
pronouns: she/her
m. 503 410 1524 | d. 503 501 5233

MAUL FOSTER ALONGI

3140 NE Broadway Street, Portland, OR 97232
www.maulfoster.com

October 25, 2021

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

Emily Curtis
Maul Foster & Alongi, Inc.
109 E 13th St.
Vancouver, WA 98660

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2118237.00

Client Project: 0457.02.03-01
Location: N-A

Dear Mrs. Curtis,

Enclosed please find test results for the 30 sample(s) submitted to our laboratory for analysis on 10/19/2021.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

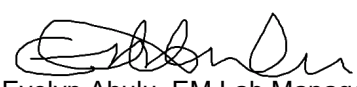
For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,



Evelyn Ahulu, EM Lab Manager

NVLAP
Lab Code: 102063-0

Enc.: Sample Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116162 **Client Sample #: 3-1-TSI-9**
Location: N-A

Layer 1 of 4	**Description:** Flaky silver paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Paint/Binder, Debris	Cellulose 5%	**None Detected ND**
		Glass fibers 3%	
Layer 2 of 4	**Description:** White woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 80%	**None Detected ND**
		Glass fibers 7%	
Layer 3 of 4	**Description:** White powdery material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Calcareous binder, Calcareous particles, Fine grains	Cellulose 8%	**None Detected ND**
		Glass fibers 6%	
Layer 4 of 4	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Glass debris	Cellulose 45%	**None Detected ND**
		Glass fibers 20%	

Lab ID: 21116163 **Client Sample #: 3-3-TSI-10**
Location: N-A

Layer 1 of 4	**Description:** Flaky silver paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Paint/Binder, Glass debris	Cellulose 3%	**None Detected ND**
		Glass fibers <1%	

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 4	**Description:** White woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Glass debris	Cellulose 5%	**None Detected ND**
		Glass fibers 85%	
Layer 3 of 4	**Description:** White powdery material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Calcareous particles, Calcareous binder, Fine grains	Cellulose 4%	**None Detected ND**
		Glass fibers <1%	
Layer 4 of 4	**Description:** Gray crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Cellulose 6%	**None Detected ND**
		Glass fibers 82%	

Lab ID: 21116164 **Client Sample #: 4-1-TSI-1**
Location: N-A

Layer 1 of 3	**Description:** Flaky silver paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Paint/Binder, Debris	Cellulose 4%	**None Detected ND**
		Glass fibers <1%	
Layer 2 of 3	**Description:** Yellow woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 85%	**None Detected ND**
Layer 3 of 3	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris, Fine particles	Cellulose <1%	**Chrysotile 15%**

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Amosite 30%

Lab ID: 21116165 **Client Sample #: 4-2-TSI-2**
Location: N-A

Layer 1 of 2 **Description:** White fibrous felt with brown paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Binder/Filler	Cellulose 75%	**None Detected ND**

Layer 2 of 2 **Description:** White crumbly material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris, Fine particles	Cellulose 7%	**Amosite 30%**
		Chrysotile 10%

Lab ID: 21116166 **Client Sample #: 4-3-MISC-3**
Location: N-A

Layer 1 of 1 **Description:** Yellow fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass debris	Glass fibers 85%	**None Detected ND**

Lab ID: 21116167 **Client Sample #: 4-3-MISC-4**
Location: N-A

Layer 1 of 1 **Description:** Yellow fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass debris	Glass fibers 82%	**None Detected ND**

Lab ID: 21116168 **Client Sample #: 4-4-MISC-5**
Location: N-A

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 2	**Description:** Beige laminate		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Fine particles, Synthetic/Binder	None Detected ND	**None Detected ND**
Layer 2 of 2	**Description:** Brown fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Wood flakes, Debris	Cellulose 88%	**None Detected ND**

Lab ID: 21116169 **Client Sample #: 4-1-TSI-6**
Location: N-A

Layer 1 of 4	**Description:** Flaky silver paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Paint/Binder, Debris	Cellulose 6%	**None Detected ND**
		Glass fibers <1%	
Layer 2 of 4	**Description:** White woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris	Glass fibers 90%	**None Detected ND**
Layer 3 of 4	**Description:** Brown woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 87%	**None Detected ND**
Layer 4 of 4	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris, Fine particles	Cellulose 5%	**Chrysotile 20%**
			Amosite 30%

Lab ID: 21116170 **Client Sample #: 4-2-TSI-7**
Location: N-A

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

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Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 2	**Description:** White woven fibrous material with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Paint, Debris	Cellulose 90%	**None Detected ND**
Layer 2 of 2	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris, Fine particles	Cellulose 8%	**Chrysotile 22%**
			Amosite 25%

Lab ID: 21116171 **Client Sample #: 4-5-TSI-8**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 85%	**None Detected ND**
Layer 2 of 2	**Description:** White fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 88%	**None Detected ND**

Lab ID: 21116172 **Client Sample #: 4-5-TSI-9**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 87%	**None Detected ND**
Layer 2 of 2	**Description:** White fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 90%	**None Detected ND**

Lab ID: 21116173 **Client Sample #: 4-1-TSI-10**
Location: N-A

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 3	**Description:** White woven fibrous material with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Paint	Cellulose 3%	**None Detected ND**
		Glass fibers 85%	
Layer 2 of 3	**Description:** Yellow woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 80%	**None Detected ND**
Layer 3 of 3	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris, Fine particles	Cellulose 5%	**Chrysotile 20%**
			Amosite 25%

Lab ID: 21116174 **Client Sample #: 4-5-TSI-11**
Location: N-A

Layer 1 of 3	**Description:** Brown crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 4%	**None Detected ND**
Layer 2 of 3	**Description:** White woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 87%	**None Detected ND**
Layer 3 of 3	**Description:** Yellow fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 86%	**None Detected ND**

Lab ID: 21116175 **Client Sample #: 4-6-TSI-12**
Location: N-A

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 1 of 3	**Description:** Brittle red/silver paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Paint/Binder, Debris, Fine particles	Cellulose	9%	**None Detected ND**
Layer 2 of 3	**Description:** White woven fibrous material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Debris, Paint	Cellulose	85%	**None Detected ND**
Layer 3 of 3	**Description:** White crumbly material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Debris, Fine particles	Cellulose	5%	**Chrysotile 28%**
				Amosite 22%

Lab ID: 21116176 **Client Sample #: 4-5-TSI-13**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers	90%	**None Detected ND**
Layer 2 of 2	**Description:** Yellow fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers	87%	**None Detected ND**

Lab ID: 21116177 **Client Sample #: 4-7-TSI-14**
Location: N-A

Layer 1 of 6	**Description:** White/silver paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Paint/Binder, Debris	Cellulose	5%	**None Detected ND**
		Glass fibers	<1%	

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

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Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 6	**Description:** White woven fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers	82%	**None Detected ND**
Layer 3 of 6	**Description:** Off-white woven fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose	85%	**None Detected ND**
Layer 4 of 6	**Description:** Silver paint			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Paint/Binder, Debris	Cellulose	3%	**None Detected ND**
		Glass fibers	<1%	
Layer 5 of 6	**Description:** Brown crumbly material with metal foil			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Debris, Metal foil	Cellulose	5%	**None Detected ND**
		Glass fibers	2%	
Layer 6 of 6	**Description:** Yellow foamy fibrous material			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers	88%	**None Detected ND**

Lab ID: 21116178 **Client Sample #: 4-7-TSI-15**
Location: N-A

Layer 1 of 3	**Description:** White mastic with red paint and metal foil			
	Non-Fibrous Materials:	Other Fibrous Materials:%		**Asbestos Type: %**
	Binder/Filler, Metal foil, Paint	Cellulose	8%	**None Detected ND**
		Glass fibers	<1%	

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

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Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Layer 2 of 3	**Description:** Brown fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 25%	**None Detected ND**
		Glass fibers 2%	
Layer 3 of 3	**Description:** Yellow fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 89%	**None Detected ND**

Lab ID: 21116179 **Client Sample #: 4-8-MISC-16**
Location: N-A

Layer 1 of 1	**Description:** Charcoal gray fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 2%	**Chrysotile 90%**

Lab ID: 21116180 **Client Sample #: 4-1-TSI-17**
Location: N-A

Layer 1 of 3	**Description:** Flaky silver paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Paint/Binder, Debris	Cellulose 3%	**None Detected ND**
Layer 2 of 3	**Description:** White woven fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris	Cellulose 88%	**None Detected ND**
Layer 3 of 3	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Calcareous particles, Debris	Cellulose 3%	**Chrysotile 30%**
			Amosite 20%

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

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Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116181 **Client Sample #: 4-7-TSI-18**
Location: N-A

Layer 1 of 2 **Description:** Brown fibrous material with red paint and metal foil

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Metal foil, Glass debris	Glass fibers 90%	**None Detected ND**
	Cellulose 3%	

Layer 2 of 2 **Description:** Yellow foamy fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass debris, Fine particles	Glass fibers 86%	**None Detected ND**

Lab ID: 21116182 **Client Sample #: 4-7-TSI-19**
Location: N-A

Layer 1 of 2 **Description:** Soft white thin vinyl sheet with silver paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Vinyl/Binder	Cellulose 3%	**None Detected ND**

Layer 2 of 2 **Description:** Yellow fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass debris, Fine particles	Glass fibers 85%	**None Detected ND**

Lab ID: 21116183 **Client Sample #: 4-2-TSI-20**
Location: N-A

Layer 1 of 2 **Description:** White woven fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris	Cellulose 90%	**None Detected ND**

Layer 2 of 2 **Description:** White crumbly material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris, Fine particles	Cellulose 2%	**Amosite 50%**

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

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Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116184 **Client Sample #: 4-5-TSI-21**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous material with black fibrous banding		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 84%	**None Detected ND**
		Synthetic fibers 10%	
Layer 2 of 2	**Description:** Yellow fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 88%	**None Detected ND**

Lab ID: 21116185 **Client Sample #: 4-2-TSI-22**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous material with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Paint, Debris	Cellulose 90%	**None Detected ND**
Layer 2 of 2	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris, Fine particles	Cellulose 3%	**Amosite 48%**

Lab ID: 21116186 **Client Sample #: 4-9-TSI-23**
Location: N-A

Layer 1 of 2	**Description:** White woven fibrous material with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 88%	**None Detected ND**
Layer 2 of 2	**Description:** White crumbly material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Debris, Fine particles	Cellulose 3%	**Chrysotile 22%**

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

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Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

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Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Amosite 28%

Lab ID: 21116187 **Client Sample #: 4-8-MISC-24**
Location: N-A

Layer 1 of 2 **Description:** Flaky silver paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint/Binder, Debris, Fine particles	Cellulose 3%	**Chrysotile 6%**

Layer 2 of 2 **Description:** Gray/white fibrous felt

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris, Fine particles	Cellulose 5%	**Chrysotile 85%**

Lab ID: 21116188 **Client Sample #: 4-2-TSI-25**
Location: N-A

Layer 1 of 2 **Description:** White woven fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris, Paint	Cellulose 88%	**None Detected ND**

Layer 2 of 2 **Description:** White crumbly material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris, Fine particles	Cellulose 5%	**Chrysotile 15%**
		Amosite 33%

Lab ID: 21116189 **Client Sample #: 4-5-TSI-26**
Location: N-A

Layer 1 of 1 **Description:** White woven fibrous felt

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Fine particles	Glass fibers 80%	**None Detected ND**

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118237.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 30
Samples Analyzed: 30
Method: EPA/600/R-93/116

Lab ID: 21116190 **Client Sample #: 4-7-TSI-27**
Location: N-A

Layer 1 of 2 **Description:** White fibrous material with paper and metal foil

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass debris, Metal foil	Cellulose 30%	**None Detected ND**
	Glass fibers 65%	

Layer 2 of 2 **Description:** Yellow fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass debris, Fine particles	Glass fibers 87%	**None Detected ND**

Lab ID: 21116191 **Client Sample #: 4-7-TSI-28**
Location: N-A

Layer 1 of 2 **Description:** White synthetic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Synthetic/Binder	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Yellow foamy fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Glass debris, Fine particles	Glass fibers 94%	**None Detected ND**

Sampled by: Client
Analyzed by: Hieu Ta **Date:** 10/21/2021
Reviewed by: Evelyn Ahulu **Date:** 10/25/2021

Evelyn Ahulu, EM Lab Manager

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

NVL

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number 2118237.00
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	21116162	3-1-TSI-9		A
2	21116163	3-3-TSI-10		A
3	21116164	4-1-TSI-1		A
4	21116165	4-2-TSI-2		A
5	21116166	4-3-MISC-3		A
6	21116167	4-3-MISC-4		A
7	21116168	4-4-MISC-5		A
8	21116169	4-1-TSI-6		A
9	21116170	4-2-TSI-7		A
10	21116171	4-5-TSI-8		A
11	21116172	4-5-TSI-9		A
12	21116173	4-1-TSI-10		A
13	21116174	4-5-TSI-11		A
14	21116175	4-6-TSI-12		A
15	21116176	4-5-TSI-13		A
16	21116177	4-7-TSI-14		A
17	21116178	4-7-TSI-15		A
18	21116179	4-8-MISC-16		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Hieu Ta		NVL	10/21/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 12:00 PM
Entered By: Fatima Khan

ASBESTOS LABORATORY SERVICES

NVL

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number **2118237.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 30 Rush Samples

	Lab ID	Sample ID	Description	A/R
19	21116180	4-1-TSI-17		A
20	21116181	4-7-TSI-18		A
21	21116182	4-7-TSI-19		A
22	21116183	4-2-TSI-20		A
23	21116184	4-5-TSI-21		A
24	21116185	4-2-TSI-22		A
25	21116186	4-9-TSI-23		A
26	21116187	4-8-MISC-24		A
27	21116188	4-2-TSI-25		A
28	21116189	4-5-TSI-26		A
29	21116190	4-7-TSI-27		A
30	21116191	4-7-TSI-28		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Hieu Ta		NVL	10/21/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 12:00 PM
Entered By: Fatima Khan

2118237

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY • MANAGEMENT • TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi
Address: 2815 2nd Ave #540, Seattle, WA 98121
Phone: 503-410-1524
Project Manager: Matt Hoffman
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions: Report to Emily Curtis
❑ Call ( ) - ❑ Fax ( ) - ❑ Email ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	3-1-TSI-9	White vent insulation w/ white wrapping	
2	3-3-TSI-10	White insulation on mechanical part	
3	~~3-10-PB-1~~ 4-1-TSI-1	White insulation with silver fabric patch	
4	4-2-TSI-2	White insulation with orange-painted wrap	
5	4-3-MISC-3	Brown soundproofing wall pad	
6	4-3-MISC-4	Brown soundproofing wall pad	
7	4-4-MISC-5	Off-white laminate tabletop with clear adhesive	
8	4-1-TSI-6	White insulation with orange-painted wrap	
9	4-~~2~~-TSI-~~7~~	White insulation with silver fabric patch	
10	4-5-TSI-8	Silver steam pipe fabric wrap	
11	4-5-TSI-9	Silver steam pipe fabric wrap	
12	4-1-TSI-~~10~~	White insulation with silver fabric patch	
13	4-5-TSI-11	Silver steam pipe fabric wrap	
14	4-6-TSI-12	Red steam pipe fabric wrap	
15	4-5-TSI-13	Silver steam pipe fabric wrap	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson		MFA	10/15/21	0800
Relinquish by	Connor Anderson		MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by				10/19/21	10:00am Fedex
Analyzed by					
Called by					
Faxed/Emailed by					

2118237

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company Maul Foster & Alongi
Address 2815 2nd Ave #540
Seattle, WA 98121
Phone 503-410-1524

Project Manager
Cell ( ) -
Email
Fax ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ❑ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions Report to Emily Curtis
❑ Call ( ) - ❑ Fax ( ) - ❑ Email ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	4-7-TSI-14	Silver steam pipe fabric wrap w/ yellow insulation	
2	4-7-TSI-15	Red steam pipe fabric wrap w/ yellow insulation	
3	4-8-MISC-16	Silver woven heat-resistant seal material on hatch interior	
4	4-1-TSI-17	White insulation w/ silver fabric patch on machinery	
5	4-7-TSI-18	Orange steam pipe fabric wrap w/ yellow insulation	
6	4-7-TSI-19	Orange steam pipe fabric wrap w/ yellow insulation	
7	4-2-TSI-20	White insulation w/ orange-painted wrap	
8	4-5-TSI-21	Silver steam pipe fabric wrap	
9	4-2-TSI-22	White insulation w/ white-painted wrap	
10	4-9-TSI-23	White tank insulation w/ gray painted wrap & plastic patch	
11	4-8-MISC-24	Silver woven heat-resistant seal material on hatch interior	
12	4-2-TSI-25	White insulation w/ orange-painted wrap	
13	4-5-TSI-26	Silver steam pipe fabric wrap	
14	4-7-TSI-27	White condensate pipe w/ yellow insulation	
15	4-7-TSI-28	White condensate line elbow w/ yellow insulation	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson		MFA	10/15/21	0800
Relinquish by	Connor Anderson		MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by					
Analyzed by					
Called by					
Faxed/Email by					

Kelly Au Vu

From: Emily Curtis <ecurtis@maulfoster.com>
Sent: Tuesday, October 19, 2021 10:10 AM
To: Client Services
Subject: Project Information

Hello,

Please use project number 0457.02.03-01 and 5-day turn.

Thanks,

EMILY CURTIS | MAUL FOSTER & ALONGI, INC.
Project Health, Safety, and Environmental Specialist
pronouns: she/her
m. 503 410 1524 | d. 503 501 5233

MAUL FOSTER ALONGI

3140 NE Broadway Street, Portland, OR 97232
www.maulfoster.com

October 26, 2021

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

Emily Curtis
Maul Foster & Alongi, Inc.
109 E 13th St.
Vancouver, WA 98660

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2118240.00

Client Project: 0457.02.03-01
Location: N-A

Dear Mrs. Curtis,

Enclosed please find test results for the 26 sample(s) submitted to our laboratory for analysis on 10/19/2021.

Examination of these samples was conducted for the presence of identifiable asbestos fibers using polarized light microscopy (PLM) with dispersion staining in accordance with **U. S. EPA 40 CFR Appendix E to Subpart E of Part 763**, Interim Method for the Determination of Asbestos in Bulk Insulation Samples and **EPA 600/R-93/116**, Method for the Determination of Asbestos in Bulk Building Materials.

For samples containing more than one separable layer of materials, the report will include findings for each layer (labeled Layer 1 and Layer 2, etc. for each individual layer). The asbestos concentration in the sample is determined by calibrated visual estimation.

For those samples with asbestos concentrations between 1 and 10 percent based on visual estimation, the EPA recommends a procedure known as point counting (NESHAPS, 40 CFR Part 61). Point counting is a statistically more accurate means of quantification for samples with low concentrations of asbestos.

The detection limit for the calibrated visual estimation is <1%, 400 point counts is 0.25% and 1000 point counts is 0.1%

Samples are archived for two weeks following analysis. Samples that are not retrieved by the client are discarded after two weeks.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,

Nick Ly, Technical Director

NVLAP
Lab Code: 102063-0

Enc.: Sample Results

Phone: 206 547.0100 | Fax: 206 634.1936 | Toll Free: 1.888.NVL.LABS (685.5227)
4708 Aurora Avenue North | Seattle, WA 98103-6516

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Lab ID: 21116209 **Client Sample #: 4-2-TSI-29**
Location: N-A

Layer 1 of 2 **Description:** Thin silver paint over fibrous mesh

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Metallic paint, Fine particles, Binder/Filler	Cellulose 70%	**None Detected ND**

Layer 2 of 2 **Description:** White powdery fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Fine particles	None Detected ND	**Amosite 40%**

Lab ID: 21116210 **Client Sample #: 4-8-MISC-30**
Location: N-A

Layer 1 of 2 **Description:** White interwoven fibrous material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Paint, Binder/Filler, Fine particles	Cellulose 10%	**Chrysotile 80%**
Debris		

Layer 2 of 2 **Description:** Gray fibrous mesh

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles	Cellulose 98%	**None Detected ND**

Lab ID: 21116211 **Client Sample #: 4-2-TSI-31**
Location: N-A

Layer 1 of 3 **Description:** Silver paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Metallic paint, Fine particles	None Detected ND	**None Detected ND**

Layer 2 of 3 **Description:** White interwoven fibrous mesh

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles	Glass fibers 98%	**None Detected ND**

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Layer 3 of 3	**Description:** Light brown crumbly powdery fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Glass debris, Fine particles	Glass fibers 60%	**None Detected ND**
		Cellulose 10%	

Lab ID: 21116212 **Client Sample #: 4-9-TSI-32**

Location: N-A

Comments: Unsure of correct layer sequence.

Layer 1 of 2	**Description:** Light gray crumbly powdery fibrous material with paint		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Paint, Glass debris	Glass fibers 65%	**None Detected ND**
	Fine particles		
Layer 2 of 2	**Description:** Gray crumbly fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Fine grains, Fine particles	Cellulose 12%	**Chrysotile 40%**

Lab ID: 21116213 **Client Sample #: 4-7-TSI-33**

Location: N-A

Layer 1 of 2	**Description:** Silver foil with fibrous mesh, paint and paper		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Paint, Metal foil	Cellulose 30%	**None Detected ND**
	Fine particles	Glass fibers 20%	
Layer 2 of 2	**Description:** Orange fibrous material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Fine particles, Glass debris	Glass fibers 98%	**None Detected ND**

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Lab ID: 21116214 **Client Sample #: 4-10-MISC-34**
Location: N-A

Layer 1 of 1 **Description:** Light gray brittle sandy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Sand, Fine grains	Cellulose 5%	**None Detected ND**
Fine particles		

Lab ID: 21116215 **Client Sample #: 4-11-MISC-35**
Location: N-A

Layer 1 of 2 **Description:** Red brick

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Brick, Fine grains, Fine particles	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** Light gray cementitious material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Cement/Binder, Fine grains, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 21116216 **Client Sample #: 4-12-MISC-36**
Location: N-A

Layer 1 of 2 **Description:** White brittle fibrous material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Debris	Glass fibers 50%	**None Detected ND**

Layer 2 of 2 **Description:** White soft adhesive with paint and debris

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Adhesive/Binder, Paint, Debris	None Detected ND	**None Detected ND**
Fine grains, Fine particles		

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Lab ID: 21116217 **Client Sample #: 4-13-MISC-37**
Location: N-A

Layer 1 of 2	**Description:** White compacted powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Calcareous binder, Calcareous particles	Cellulose	2%	**None Detected ND**
Layer 2 of 2	**Description:** Gray crumbly material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine grains, Fine particles	None Detected	ND	**None Detected ND**

Lab ID: 21116218 **Client Sample #: 4-14-MISC-38**
Location: N-A

Layer 1 of 2	**Description:** Black crumbly vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder, Fine grains, Fine particles	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Clear soft adhesive			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Adhesive/Binder, Debris, Fine particles	Cellulose	4%	**None Detected ND**

Lab ID: 21116219 **Client Sample #: 4-15-MISC-39**
Location: N-A

Layer 1 of 3	**Description:** White crumbly vinyl			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Vinyl/Binder, Fine grains, Fine particles	None Detected	ND	**None Detected ND**
Layer 2 of 3	**Description:** Yellow brittle adhesive with debris and paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Adhesive/Binder, Debris, Fine particles	Cellulose	3%	**None Detected ND**
	Paint			

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Layer 3 of 3	**Description:** Gray crumbly sandy material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Binder/Filler, Sand, Fine grains	Cellulose 10%	**None Detected ND**
	Fine particles		

Lab ID: 21116220 **Client Sample #: 4-16-MISC-40**
Location: N-A

Layer 1 of 2	**Description:** Black rubbery material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Rubber/Binder, Fine particles	None Detected ND	**None Detected ND**
Layer 2 of 2	**Description:** Tan soft mastic		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Mastic/Binder, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 21116221 **Client Sample #: EXT-1-MISC-1**
Location: N-A

Layer 1 of 1	**Description:** Red brick		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Brick, Fine grains, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 21116222 **Client Sample #: EXT-2-MISC-2**
Location: N-A

Layer 1 of 1	**Description:** Gray cementitious sandy material		
	Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
	Cement/Binder, Sand, Fine grains	Cellulose 2%	**None Detected ND**
	Fine particles, Debris		

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Lab ID: 21116223 **Client Sample #: EXT-3-MISC-3**
Location: N-A

Layer 1 of 1 **Description:** Clear soft/elastic material with debris

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris, Fine particles	None Detected ND	**None Detected ND**
Sand		

Lab ID: 21116224 **Client Sample #: EXT-1-MISC-4**
Location: N-A

Layer 1 of 1 **Description:** Red brick

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Brick, Fine grains, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 21116225 **Client Sample #: EXT-2-MISC-5**
Location: N-A

Layer 1 of 1 **Description:** Loose gray cementitious material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Cement/Binder, Sand, Debris	None Detected ND	**None Detected ND**
Fine grains, Fine particles, Mica		

Lab ID: 21116226 **Client Sample #: EXT-3-MISC-6**
Location: N-A

Layer 1 of 1 **Description:** Light gray soft/elastic material with debris

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Debris, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 21116227 **Client Sample #: EXT-4-MISC-7**
Location: N-A

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Layer 1 of 1	**Description:** Light gray soft/elastic material with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Caulking compound, Debris, Fine particles	Cellulose	2%	**None Detected ND**

Lab ID: 21116228 **Client Sample #: 3-8-MISC-11**
Location: N-A

Layer 1 of 1	**Description:** Off-white brittle putty material with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Putty Compound, Debris, Fine particles	None Detected	ND	**Chrysotile 4%**

Lab ID: 21116229 **Client Sample #: 3-8-MISC-12**
Location: N-A

Layer 1 of 1	**Description:** Off-white brittle putty material with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Putty Compound, Debris, Fine particles	None Detected	ND	**Chrysotile 5%**

Lab ID: 21116230 **Client Sample #: 4-17-MISC-41**
Location: N-A

Layer 1 of 2	**Description:** Tan and white ceramic with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Ceramic/Binder, Debris, Fine particles	None Detected	ND	**None Detected ND**
Layer 2 of 2	**Description:** Off-white brittle material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine grains, Fine particles	None Detected	ND	**None Detected ND**

Lab ID: 21116231 **Client Sample #: 4-17-MISC-42**
Location: N-A

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Layer 1 of 3	**Description:** Tan and white ceramic with debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Ceramic/Binder, Debris, Fine particles	None Detected	ND	**None Detected ND**
Layer 2 of 3	**Description:** Off-white brittle material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine grains, Fine particles	None Detected	ND	**None Detected ND**
Layer 3 of 3	**Description:** Light brown brittle material with paint			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Paint, Fine particles	None Detected	ND	**Chrysotile 6%**

Lab ID: 21116232 **Client Sample #: 4-18-MISC-43**
Location: N-A

Layer 1 of 2	**Description:** White brittle powdery material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Fine grains, Fine particles	Cellulose	3%	**None Detected ND**
	Gypsum particles			
Layer 2 of 2	**Description:** Off-white brittle sandy material			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Binder/Filler, Sand, Fine grains	Cellulose	10%	**None Detected ND**
	Fine particles, Gypsum particles			

Lab ID: 21116233 **Client Sample #: 4-19-MISC-44**
Location: N-A

Layer 1 of 2	**Description:** Off-white ceramic with white glaze and sandy debris			
	Non-Fibrous Materials:	Other Fibrous Materials:	%	**Asbestos Type: %**
	Ceramic/Binder, Sand, Fine particles	None Detected	ND	**None Detected ND**

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

Bulk Asbestos Fibers Analysis

By Polarized Light Microscopy

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118240.00
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 26
Samples Analyzed: 26
Method: EPA/600/R-93/116

Fine grains

Layer 2 of 2 **Description:** Brown crumbly material with paint

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Paint, Fine particles	Cellulose 6%	**Chrysotile 15%**

Lab ID: 21116234 **Client Sample #: 4-18-MISC-45**

Location: N-A

Layer 1 of 2 **Description:** Light gray brittle powdery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Mica, Fine particles	None Detected ND	**None Detected ND**

Layer 2 of 2 **Description:** White chalky material with paper

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Gypsum/Binder, Fine particles	Cellulose 35%	**None Detected ND**
	Glass fibers 8%	

Sampled by: Client
Analyzed by: Michael Jenkins **Date:** 10/25/2021
Reviewed by: Nick Ly **Date:** 10/26/2021

Nick Ly, Technical Director

Note: If samples are not homogeneous, then subsamples of the components were analyzed separately. All bulk samples are analyzed using both EPA 600/R-93/116 and 600/M4-82-020 Methods with the following measurement uncertainties for the reported % Asbestos (1%=0-3%, 5%=1-9%, 10%=5-15%, 20%=10-30%, 50%=40-60%). This report relates only to the items tested. If sample was not collected by NVL personnel, then the accuracy of the results is limited by the methodology and acuity of the sample collector. This report shall not be reproduced except in full, without written approval of NVL Laboratories, Inc. It shall not be used to claim product endorsement by NVLAP or any other agency of the US Government

ASBESTOS LABORATORY SERVICES

Company	Maul Foster & Alongi, Inc.	**NVL Batch Number**	**2118240.00**
Address	109 E 13th St.	**TAT**	5 Days **AH** No
	Vancouver, WA 98660	**Rush TAT**	
Project Manager	Mrs. Emily Curtis	**Due Date**	10/26/2021 **Time** 10:10 AM
Phone	(971) 544-2139	**Email**	ecurtis@maulfoster.com
		Fax	

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk

Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 26 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	21116209	4-2-TSI-29		A
2	21116210	4-8-MISC-30		A
3	21116211	4-2-TSI-31		A
4	21116212	4-9-TSI-32		A
5	21116213	4-7-TSI-33		A
6	21116214	4-10-MISC-34		A
7	21116215	4-11-MISC-35		A
8	21116216	4-12-MISC-36		A
9	21116217	4-13-MISC-37		A
10	21116218	4-14-MISC-38		A
11	21116219	4-15-MISC-39		A
12	21116220	4-16-MISC-40		A
13	21116221	EXT-1-MISC-1		A
14	21116222	EXT-2-MISC-2		A
15	21116223	EXT-3-MISC-3		A
16	21116224	EXT-1-MISC-4		A
17	21116225	EXT-2-MISC-5		A
18	21116226	EXT-3-MISC-6		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Michael Jenkins		NVL	10/25/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 12:25 PM
Entered By: Fatima Khan

ASBESTOS LABORATORY SERVICES

Company	Maul Foster & Alongi, Inc.	**NVL Batch Number**	**2118240.00**
Address	109 E 13th St. Vancouver, WA 98660	**TAT** 5 Days	**AH** No
		Rush TAT	
Project Manager	Mrs. Emily Curtis	**Due Date** 10/26/2021	**Time** 10:10 AM
Phone	(971) 544-2139	**Email**	ecurtis@maulfoster.com
		Fax	

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory PLM Bulk

Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 26 Rush Samples

	Lab ID	Sample ID	Description	A/R
19	21116227	EXT-4-MISC-7		A
20	21116228	3-8-MISC-11		A
21	21116229	3-8-MISC-12		A
22	21116230	4-17-MISC-41		A
23	21116231	4-17-MISC-42		A
24	21116232	4-18-MISC-43		A
25	21116233	4-19-MISC-44		A
26	21116234	4-18-MISC-45		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Michael Jenkins		NVL	10/25/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 12:25 PM
Entered By: Fatima Khan

2118240

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company Maul Foster & Alongi
Address 2815 2nd Ave #540
Seattle, WA 98121
Phone 503-410-1524

Project Manager Matt Hoffman
Cell ( ) -
Email
Fax ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions Report to Emily Curtis
❑ Call ( ) - ❑ Fax ( ) - ❑ Email ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	4-2-TSI-29	White insulation with silver-painted wrap	
2	4-8-MISC-30	Silver woven heat-resistant seal material on hatch interior	
3	4-2-TSI-31	White insulation w/ silver painted wrap	
4	4-9-TSI-32	White tank insulation w/ orange wrap	
5	4-7-TSI-33	Yellow insulation with red-painted silver wrap	
6	4-10-MISC-34	Gray brick mortar	
7	4-11-MISC-35	Red brick	
8	4-12-MISC-36	White textured waterproofing tile	
9	4-13-MISC-37	Window glazing	
10	4-14-MISC-38	Black 12x12 linoleum floor tile w/ yellow adhesive	
11	4-15-MISC-39	White 12x12 linoleum floor tile w/ yellow adhesive	
12	4-16-MISC-40	Black base cove w/ yellow adhesive	
13	~~5-tile~~ EXT-1-MISC-1	Red Brick	
14	EXT-2-MISC-2	Gray brick mortar	
15	EXT-3-MISC-3	Window glazing	

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson		MFA	10/15/21	0800
Relinquish by	Connor Anderson		MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by				10/19/21	10:10am fake
Analyzed by					
Called by					
Faxed/Email by					

2118240

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY • MANAGEMENT • TRAINING

ASBESTOS CHAIN OF CUSTODY

Turn Around Time
- ❑ 1 Hour
- ❑ 2 Hours
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi
Address: 2815 2nd Ave #540, Seattle, WA 98121
Phone: 503-410-1524

Project Manager: Matt Hoffman
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- ❑ PCM Air (NIOSH 7400)
- ❑ PLM (EPA 600/R-93-116)
- ☒ PLM Gravimetry (600/R-93-116)
- ❑ Asbestos Friable/Non-Friable (EPA 600/R-93/116)
- ❑ TEM (NIOSH 7402)
- ❑ EPA 400 Points (600/R-93-116)
- ❑ Asbestos in Vermiculite (EPA 600/R-04/004)
- ❑ TEM (AHERA)
- ❑ Other
- ❑ TEM (EPA Level II Modified)
- ❑ EPA 1000Points (600/R-93-116)
- ❑ Asbestos in Sediment (EPA 1900 Points)

Reporting Instructions: Report to Emily Curtis
❑ Call ( ) -
❑ Fax ( ) -
❑ Email: ecurtis@maulfoster.com

Total Number of Samples ____

	Sample ID	Description	A/R
1	EXT-1-MISC-4	Red Brick	
2	EXT-2-MISC-5	Gray brick mortar	
3	EXT-3-MISC-6	Window glazing	
4	EXT-4-MISC-7	White brick caulking	
5	3-8-MISC-~~12~~11	Window Glazing	
6	3-8-MISC-12	Window Glazing	
7	4-17-MISC-41	Tan 1"-2" square tile w/ brown adhesive	
8	4-17-MISC-42	Tan 1"-2" square tile w/ brown adhesive	
9	4-18-MISC-43	White drywall w/ gray cementitious wallboard	
10	4-19-MISC-44	Tan base cove w/ green adhesive	
11	4-18-MISC-45	White drywall w/ gray cementitious wallboard	
12			
13			
14			
15			

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson		MFA	10/15/21	0800
Relinquish by	Connor Anderson		MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by			NVL Labs	10/19/21	10:00
Analyzed by					
Called by					
Faxed/Email by					

Kelly Au Vu

From: Emily Curtis <ecurtis@maulfoster.com>
Sent: Tuesday, October 19, 2021 10:10 AM
To: Client Services
Subject: Project Information

Hello,

Please use project number 0457.02.03-01 and 5-day turn.

Thanks,

EMILY CURTIS | MAUL FOSTER & ALONGI, INC.
Project Health, Safety, and Environmental Specialist
pronouns: she/her
m. 503 410 1524 | d. 503 501 5233

MAUL FOSTER ALONGI

3140 NE Broadway Street, Portland, OR 97232
www.maulfoster.com

October 22, 2021

Emily Curtis
Maul Foster & Alongi, Inc.
109 E 13th St.
Vancouver, WA 98660

NVL Batch # 2118241.00

RE: Total Metal Analysis
Method: EPA 7000B Lead by FAA <paint>
Item Code: FAA-02

Client Project: 0457.02.03-01
Location: N-A

Dear Mrs. Curtis,

NVL Labs received 11 sample(s) for the said project on 10/19/2021. Preparation of these samples was conducted following protocol outlined in EPA 3051/7000B , unless stated otherwise. Analysis of these samples was performed using analytical instruments in accordance with EPA 7000B Lead by FAA <paint>. The results are usually expressed in mg/Kg and percentage (%). Test results are not blank corrected.

For recent regulation updates pertaining to current regulatory levels or permissible exposure levels, please call your local regulatory agencies for more detail.

At NVL Labs all analyses are performed under strict guidelines of the Quality Assurance Program. This report is considered highly confidential and will not be released without your approval. Samples are archived after two weeks from the analysis date. Please feel free to contact us at 206-547-0100, in case you have any questions or concerns.

Sincerely,

Shalini Patel, Lab Supervisor

Enc.: Sample results

Analysis Report

Total Lead (Pb)

Client: Maul Foster & Alongi, Inc.
Address: 109 E 13th St.
Vancouver, WA 98660

Attention: Mrs. Emily Curtis
Project Location: N-A

Batch #: 2118241.00
Matrix: Paint
Method: EPA 3051/7000B
Client Project #: 0457.02.03-01
Date Received: 10/19/2021
Samples Received: 11
Samples Analyzed: 11

Lab ID	Client Sample #	Sample Weight (g)	RL in mg/Kg	Results in mg/Kg	Results in percent
21116235	1-4-PB-8	0.1854	54	2700	0.27
21116236	1-7-PB-13	0.1939	52	2400	0.24
21116237	1-20-PB-28	0.1774	56	20000	2.0
21116238	2-7-PB-24	0.1861	54	150000	15
21116239	3-6-PB-12	0.2025	49	630	0.063
21116240	4-3-PB-4	0.1904	53	23000	2.3
21116241	4-23-PB-32	0.1931	52	2200	0.22
21116242	4-24-PB-36	0.1919	52	8000	0.80
21116243	4-14-PB-50	0.1927	52	150000	15
21116244	5-1-PB-2	0.1938	52	43000	4.3
21116245	EXT-1-PB-1	0.1839	54	16000	1.6

Sampled by: Client
Analyzed by: Yasuyuki Hida
Reviewed by: Shalini Patel

Date Analyzed: 10/22/2021
Date Issued: 10/22/2021

Shalini Patel, Lab Supervisor

mg/ Kg =Milligrams per kilogram
Percent = Milligrams per kilogram / 10000
Note : Method QC results are acceptable unless stated otherwise.
Unless otherwise indicated, the condition of all samples was acceptable at time of receipt.

RL = Reporting Limit
'<' = Below the reporting Limit

Bench Run No: 2021-1021-04
FAA-02

LEAD LABORATORY SERVICES

Company Maul Foster & Alongi, Inc.
Address 109 E 13th St.
Vancouver, WA 98660
Project Manager Mrs. Emily Curtis
Phone (971) 544-2139

NVL Batch Number 2118241.00
TAT 5 Days **AH** No
Rush TAT
Due Date 10/26/2021 **Time** 10:10 AM
Email ecurtis@maulfoster.com
Fax

Project Name/Number: 0457.02.03-01 **Project Location:** N-A

Subcategory Flame AA (FAA)
Item Code FAA-02 EPA 7000B Lead by FAA <paint>

Total Number of Samples 11 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	21116235	1-4-PB-8		A
2	21116236	1-7-PB-13		A
3	21116237	1-20-PB-28		A
4	21116238	2-7-PB-24		A
5	21116239	3-6-PB-12		A
6	21116240	4-3-PB-4		A
7	21116241	4-23-PB-32		A
8	21116242	4-24-PB-36		A
9	21116243	4-14-PB-50		A
10	21116244	5-1-PB-2		A
11	21116245	EXT-1-PB-1		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Fatima Khan		NVL	10/19/21	1010
Analyzed by	Yasuyuki Hida		NVL	10/22/21	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 10/19/2021
Time: 12:32 PM
Entered By: Fatima Khan

2118241

NVL
INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

METALS CHAIN OF CUSTODY

Turn Around Time
- ❑ 2 Hour
- ❑ 4 Hours
- ❑ 24 Hours
- ❑ 2 Days
- ❑ 3 Days
- ❑ 4 Days
- ❑ 5 Days
- ❑ 6-10 Days

Please call for TAT less than 24 Hours

Company: Maul Foster & Alongi
Address: 2815 2nd Ave #540, Seattle, WA 98121
Phone: 503-410-1524

Project Manager: Matt Hoffman
Cell: ( ) -
Email:
Fax: ( ) -

Project Name/Number	Project Location

- [X] Total Metals
- ❑ TCLP
- ❑ FAA (ppm
- ❑ ICP (PPM
- ❑ GFAA (ppb)
- ❑ CVAA (ppb)
- ❑ Air Filter
- [X] Paint Chips (cm)
- ❑ Drinking Water
- ❑ Other
- ❑ Paint Chips (%)
- ❑ Dust Wipes
- ❑ Waste Water
- ❑ Soil

RCRA 8
- ❑ Barium
- ❑ Arsenic
- ❑ Selenium
- ❑ Chromium
- ❑ Mercury
- ❑ Cadmium
- ❑ Silver
- [X] Lead

RCRA 11
- ❑ Copper
- ❑ Zinc
- ❑ Other

Reporting Instructions: Report to Emily Curtis
❑ Call ( ) - ❑ Fax ( ) - ❑ Email ecurtis@maulfoster.com

Total Number of Samples _____

	Sample ID	Description	A/R
1	1-4-PB-8	White Paint Chips	
2	1-7-PB-13	Red Paint Chips	
3	1-20-PB-28	Silver Paint chips	
4	2-7-PB-24	Red Paint Chips	
5	3-6-PB-22	Tan paint chips	
6	4-3-PB-4	Red Paint Chips	
7	4-23-PB-32	Bright White Paint Chips	
8	4-24-PB-36	Green Paint Chips	
9	4-14-PB-50	Orange Paint Chips	
10	5-1-PB-2	Yellow Paint Chips	
11	EXT-1-PB-1	Brownish Red Paint Chips	
12			
13			
14			
15			

	Print Name	Signature	Company	Date	Time
Sampled by	Connor Anderson	Cander	MFA	10/15/21	0800
Relinquish by	Connor Anderson	Cander	MFA	10/17/21	1350

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by	Shinalla		NVL labs	10/18/21	10:10am
Analyzed by					
Called by					
Faxed/Email by					

Fedex

2118241

Kelly Au Vu

From: Emily Curtis <ecurtis@maulfoster.com>
Sent: Tuesday, October 19, 2021 10:10 AM
To: Client Services
Subject: Project Information

Hello,

Please use project number 0457.02.03-01 and 5-day turn.

Thanks,

EMILY CURTIS | MAUL FOSTER & ALONGI, INC.
Project Health, Safety, and Environmental Specialist
pronouns: she/her
m. 503 410 1524 | d. 503 501 5233

MAUL FOSTER ALONGI

3140 NE Broadway Street, Portland, OR 97232
www.maulfoster.com

APPENDIX D

ANALYTICAL LABORATORY REPORTS DATA

ANALYTICAL REPORT

November 08, 2021

Maul Foster & Alongi- Coeur d Alene, ID

Sample Delivery Group:	L1421071
Samples Received:	10/21/2021
Project Number:	0457.02.03
Description:	WSU Steam Plant, Pullman, Washington

Report To: Lisa Pritzl
601 East Front Avenue, Suite 202
Coeur d'Alene, ID 83814

Entire Report Reviewed By: Brian Ford

Brian Ford
Project Manager

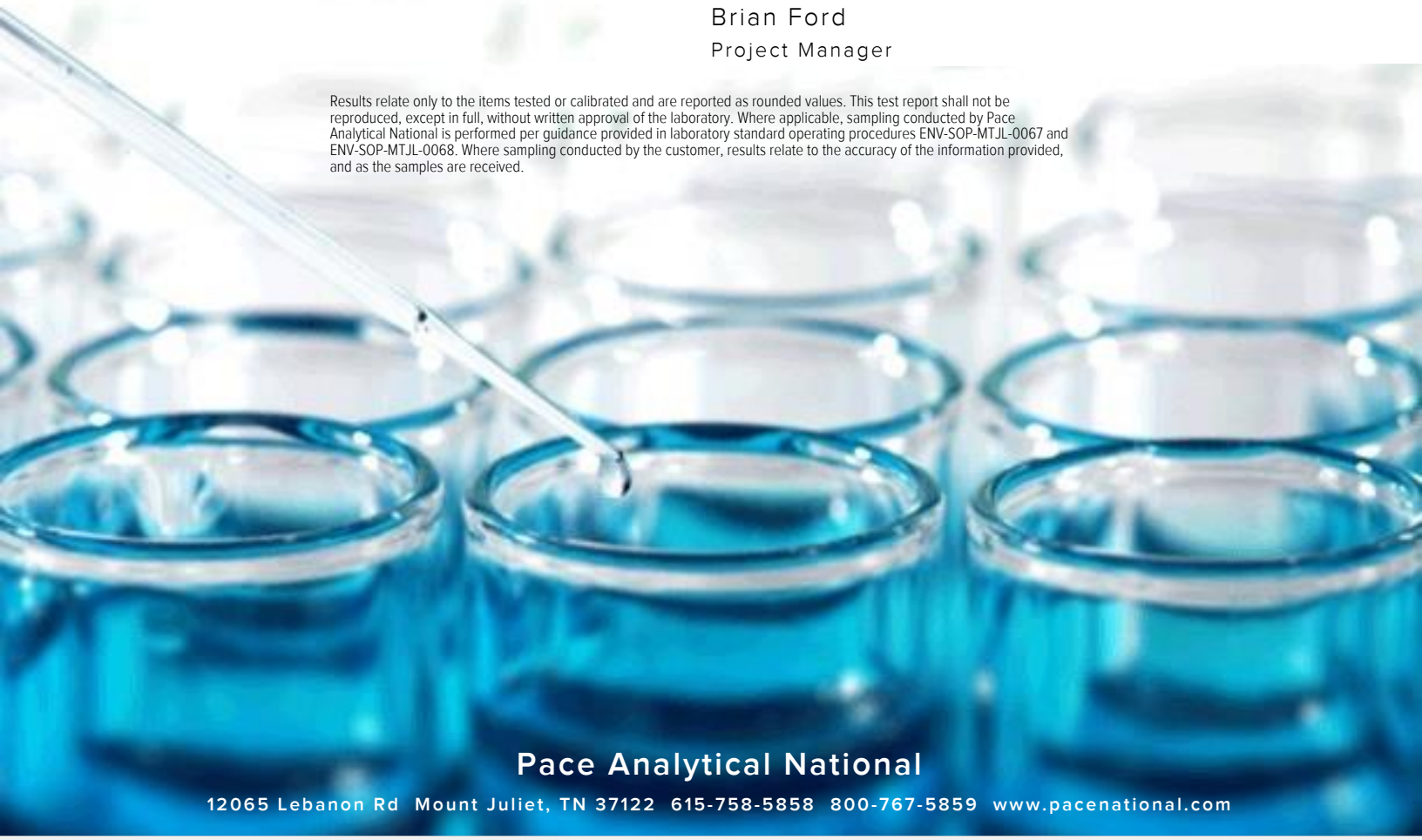

TABLE OF CONTENTS

SB-1-2.5 L1421071-01 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 12:55 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762222	1	10/25/21 08:42	10/25/21 08:48	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 10:39	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:30	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 13:18	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 14:29	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1764422	1	10/28/21 08:27	10/28/21 13:23	LEA	Mt. Juliet, TN

SB-1-15 L1421071-02 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 13:06 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762222	1	10/25/21 08:42	10/25/21 08:48	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 10:42	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:34	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 13:38	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 11:05	JAS	Mt. Juliet, TN

SB-2-2.0 L1421071-03 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 15:00 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762222	1	10/25/21 08:42	10/25/21 08:48	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 10:44	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:37	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1.13	10/23/21 22:46	10/26/21 13:57	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 13:48	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1764422	1	10/28/21 08:27	10/28/21 13:41	LEA	Mt. Juliet, TN

SB-2-15.0 L1421071-04 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 15:05 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762222	1	10/25/21 08:42	10/25/21 08:48	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 10:47	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:40	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 14:17	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 11:18	JAS	Mt. Juliet, TN

SB-3-5.0 L1421071-05 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 13:40 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762222	1	10/25/21 08:42	10/25/21 08:48	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 10:50	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:44	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 14:36	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 13:34	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1764422	1	10/28/21 08:27	10/28/21 13:58	ADF	Mt. Juliet, TN

SB-3-13.0 L1421071-06 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 13:50 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762223	1	10/25/21 08:35	10/25/21 08:41	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 10:57	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:47	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 14:55	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 14:15	JAS	Mt. Juliet, TN

SB-5-5.0 L1421071-07 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 11:50 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762223	1	10/25/21 08:35	10/25/21 08:41	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 11:00	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:50	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1.23	10/23/21 22:46	10/26/21 15:14	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 14:02	JAS	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1764422	1	10/28/21 08:27	10/28/21 14:16	LEA	Mt. Juliet, TN

SB-5-15.0 L1421071-08 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 12:00 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762223	1	10/25/21 08:35	10/25/21 08:41	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 11:02	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:53	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 15:34	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 12:26	JAS	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1764102	1	10/27/21 16:28	10/27/21 22:07	MTJ	Mt. Juliet, TN

SB-7-5.5 L1421071-09 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 11:00 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762223	1	10/25/21 08:35	10/25/21 08:41	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 11:05	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 19:57	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 15:53	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 11:32	JAS	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1764102	1	10/27/21 16:28	10/27/21 22:16	MTJ	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1764422	1	10/28/21 08:27	10/28/21 15:09	LEA	Mt. Juliet, TN

SB-7-18.5 L1421071-10 Solid

Collected by: L. Pritzl | Collected date/time: 10/19/21 11:05 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1762223	1	10/25/21 08:35	10/25/21 08:41	KDW	Mt. Juliet, TN
Mercury by Method 7471B	WG1762773	1	10/25/21 12:30	10/26/21 11:07	MRW	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763566	5	10/26/21 17:34	10/27/21 18:24	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763431	1	10/23/21 22:46	10/26/21 16:12	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1764428	1	10/28/21 08:29	10/28/21 11:46	JAS	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1764102	1	10/27/21 16:28	10/27/21 22:25	MTJ	Mt. Juliet, TN

TRIP BLANK-SOIL COOLER L1421071-11 GW

Collected by: L. Pritzl | Collected date/time: 10/19/21 08:00 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1761975	1	10/23/21 00:08	10/23/21 00:08	BMB	Mt. Juliet, TN

SB-1-GW L1421071-12 GW

Collected by: L. Pritzl | Collected date/time: 10/19/21 15:35 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1762928	1	10/26/21 14:31	10/27/21 07:32	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 20:57	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 22:44	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1761975	1	10/23/21 04:39	10/23/21 04:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1765164	1	10/28/21 22:54	10/29/21 09:04	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1762605	1	10/25/21 23:00	10/26/21 17:14	LEA	Mt. Juliet, TN

SB-2-GW L1421071-13 GW

Collected by: L. Pritzl | Collected date/time: 10/19/21 16:30 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1762928	1	10/26/21 14:31	10/27/21 07:34	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 21:00	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 22:48	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1761975	1	10/23/21 04:59	10/23/21 04:59	GLN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1765164	1	10/28/21 22:54	10/29/21 09:25	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1762605	1	10/25/21 23:00	10/26/21 17:32	LEA	Mt. Juliet, TN

SB-5-GW L1421071-14 GW

Collected by: L. Pritzl | Collected date/time: 10/19/21 13:30 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1762928	1	10/26/21 14:31	10/27/21 07:36	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 20:07	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 22:29	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1761975	1	10/23/21 05:18	10/23/21 05:18	GLN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1765162	1	10/29/21 16:49	10/30/21 01:02	DMG	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1761898	1	10/23/21 06:08	10/24/21 06:30	AMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1762605	1	10/25/21 23:00	10/26/21 17:50	LEA	Mt. Juliet, TN

SB-3-GW L1421071-15 GW

Collected by: L. Pritzl | Collected date/time: 10/19/21 17:20 | Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7470A	WG1762928	1	10/26/21 14:31	10/27/21 07:42	ABL	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 21:04	LD	Mt. Juliet, TN
Metals (ICPMS) by Method 6020B	WG1763394	1	10/27/21 11:51	10/27/21 22:51	LD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1761975	1	10/23/21 05:37	10/23/21 05:37	GLN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1765164	1	10/28/21 22:54	10/29/21 10:08	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1762605	1	10/25/21 23:00	10/26/21 18:08	LEA	Mt. Juliet, TN

SB-7-GW L1421071-16 GW

Collected by: L. Pritzl
Collected date/time: 10/19/21 16:50
Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1761975	1	10/23/21 05:57	10/23/21 05:57	GLN	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT	WG1765164	1	10/28/21 22:54	10/29/21 10:29	CAG	Mt. Juliet, TN
Polychlorinated Biphenyls (GC) by Method 8082 A	WG1761898	1	10/23/21 06:08	10/24/21 07:40	AMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM	WG1762605	1	10/25/21 23:00	10/26/21 14:39	LEA	Mt. Juliet, TN

TRIP BLANK-WATER COOLER L1421071-17 GW

Collected by: L. Pritzl
Collected date/time: 10/19/21 08:00
Received date/time: 10/21/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260D	WG1763302	1	10/26/21 03:39	10/26/21 03:39	ADM	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.5		1	10/25/2021 08:48	WG1762222

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0206	0.0457	1	10/26/2021 10:39	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.82		0.114	1.14	5	10/27/2021 19:30	WG1763566
Barium	190		0.174	2.86	5	10/27/2021 19:30	WG1763566
Cadmium	0.224	J	0.0977	1.14	5	10/27/2021 19:30	WG1763566
Chromium	20.3		0.338	5.71	5	10/27/2021 19:30	WG1763566
Lead	11.7		0.113	2.29	5	10/27/2021 19:30	WG1763566
Selenium	0.331	J	0.206	2.86	5	10/27/2021 19:30	WG1763566
Silver	U		0.0988	0.571	5	10/27/2021 19:30	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0473	0.0648	1	10/26/2021 13:18	WG1763431
Acrylonitrile	U		0.00468	0.0162	1	10/26/2021 13:18	WG1763431
Benzene	0.00527	J3	0.000605	0.00130	1	10/26/2021 13:18	WG1763431
Bromobenzene	U		0.00117	0.0162	1	10/26/2021 13:18	WG1763431
Bromodichloromethane	U		0.000940	0.00324	1	10/26/2021 13:18	WG1763431
Bromoform	U		0.00152	0.0324	1	10/26/2021 13:18	WG1763431
Bromomethane	U	J3	0.00255	0.0162	1	10/26/2021 13:18	WG1763431
n-Butylbenzene	0.00877	J J3	0.00680	0.0162	1	10/26/2021 13:18	WG1763431
sec-Butylbenzene	U	J3	0.00373	0.0162	1	10/26/2021 13:18	WG1763431
tert-Butylbenzene	U	J3	0.00253	0.00648	1	10/26/2021 13:18	WG1763431
Carbon tetrachloride	U	J3	0.00116	0.00648	1	10/26/2021 13:18	WG1763431
Chlorobenzene	U	J3	0.000272	0.00324	1	10/26/2021 13:18	WG1763431
Chlorodibromomethane	U		0.000793	0.00324	1	10/26/2021 13:18	WG1763431
Chloroethane	U	J3	0.00220	0.00648	1	10/26/2021 13:18	WG1763431
Chloroform	U	J3	0.00133	0.00324	1	10/26/2021 13:18	WG1763431
Chloromethane	U	C3 J3	0.00564	0.0162	1	10/26/2021 13:18	WG1763431
2-Chlorotoluene	U	J3	0.00112	0.00324	1	10/26/2021 13:18	WG1763431
4-Chlorotoluene	U		0.000583	0.00648	1	10/26/2021 13:18	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00505	0.0324	1	10/26/2021 13:18	WG1763431
1,2-Dibromoethane	U		0.000840	0.00324	1	10/26/2021 13:18	WG1763431
Dibromomethane	U		0.000972	0.00648	1	10/26/2021 13:18	WG1763431
1,2-Dichlorobenzene	U		0.000551	0.00648	1	10/26/2021 13:18	WG1763431
1,3-Dichlorobenzene	U	J3	0.000778	0.00648	1	10/26/2021 13:18	WG1763431
1,4-Dichlorobenzene	U		0.000907	0.00648	1	10/26/2021 13:18	WG1763431
Dichlorodifluoromethane	U	J3	0.00209	0.00324	1	10/26/2021 13:18	WG1763431
1,1-Dichloroethane	U	J3	0.000636	0.00324	1	10/26/2021 13:18	WG1763431
1,2-Dichloroethane	U		0.000841	0.00324	1	10/26/2021 13:18	WG1763431
1,1-Dichloroethene	U	C3 J3	0.000785	0.00324	1	10/26/2021 13:18	WG1763431
cis-1,2-Dichloroethene	U	J3	0.000951	0.00324	1	10/26/2021 13:18	WG1763431
trans-1,2-Dichloroethene	U	J3	0.00135	0.00648	1	10/26/2021 13:18	WG1763431
1,2-Dichloropropane	U	J3	0.00184	0.00648	1	10/26/2021 13:18	WG1763431
1,1-Dichloropropene	U	J3	0.00105	0.00324	1	10/26/2021 13:18	WG1763431
1,3-Dichloropropane	U		0.000649	0.00648	1	10/26/2021 13:18	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.000981	0.00324	1	10/26/2021 13:18	WG1763431
trans-1,3-Dichloropropene	U		0.00148	0.00648	1	10/26/2021 13:18	WG1763431
2,2-Dichloropropane	U	C3 J3	0.00179	0.00324	1	10/26/2021 13:18	WG1763431
Di-isopropyl ether	U	J3	0.000531	0.00130	1	10/26/2021 13:18	WG1763431
Ethylbenzene	0.0172	J3	0.000955	0.00324	1	10/26/2021 13:18	WG1763431
Hexachloro-1,3-butadiene	U	J3	0.00778	0.0324	1	10/26/2021 13:18	WG1763431
Isopropylbenzene	0.00503	J3	0.000551	0.00324	1	10/26/2021 13:18	WG1763431
p-Isopropyltoluene	0.0152	J3	0.00330	0.00648	1	10/26/2021 13:18	WG1763431
2-Butanone (MEK)	U		0.0823	0.130	1	10/26/2021 13:18	WG1763431
Methylene Chloride	U	J3	0.00860	0.0324	1	10/26/2021 13:18	WG1763431
4-Methyl-2-pentanone (MIBK)	0.0174	J	0.00295	0.0324	1	10/26/2021 13:18	WG1763431
Methyl tert-butyl ether	U		0.000454	0.00130	1	10/26/2021 13:18	WG1763431
Naphthalene	0.0577		0.00632	0.0162	1	10/26/2021 13:18	WG1763431
n-Propylbenzene	0.00566	J J3	0.00123	0.00648	1	10/26/2021 13:18	WG1763431
Styrene	U	J3	0.000297	0.0162	1	10/26/2021 13:18	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00123	0.00324	1	10/26/2021 13:18	WG1763431
1,1,2,2-Tetrachloroethane	U		0.000901	0.00324	1	10/26/2021 13:18	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3 J3	0.000977	0.00324	1	10/26/2021 13:18	WG1763431
Tetrachloroethene	U	J3	0.00116	0.00324	1	10/26/2021 13:18	WG1763431
Toluene	0.0610		0.00168	0.00648	1	10/26/2021 13:18	WG1763431
1,2,3-Trichlorobenzene	U		0.00950	0.0162	1	10/26/2021 13:18	WG1763431
1,2,4-Trichlorobenzene	U		0.00570	0.0162	1	10/26/2021 13:18	WG1763431
1,1,1-Trichloroethane	U	J3	0.00120	0.00324	1	10/26/2021 13:18	WG1763431
1,1,2-Trichloroethane	U		0.000774	0.00324	1	10/26/2021 13:18	WG1763431
Trichloroethene	U	J3	0.000757	0.00130	1	10/26/2021 13:18	WG1763431
Trichlorofluoromethane	U	C3 J3	0.00107	0.00324	1	10/26/2021 13:18	WG1763431
1,2,3-Trichloropropane	U		0.00210	0.0162	1	10/26/2021 13:18	WG1763431
1,2,4-Trimethylbenzene	0.0485	J3	0.00205	0.00648	1	10/26/2021 13:18	WG1763431
1,2,3-Trimethylbenzene	0.0426		0.00205	0.00648	1	10/26/2021 13:18	WG1763431
Vinyl chloride	U	C3 J3	0.00150	0.00324	1	10/26/2021 13:18	WG1763431
1,3,5-Trimethylbenzene	0.0122	J3	0.00259	0.00648	1	10/26/2021 13:18	WG1763431
Xylenes, Total	0.112	J3	0.00114	0.00842	1	10/26/2021 13:18	WG1763431
(S) Toluene-d8	*122*			*75.0-131*		*10/26/2021 13:18*	WG1763431
(S) 4-Bromofluorobenzene	*91.1*			*67.0-138*		*10/26/2021 13:18*	WG1763431
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*10/26/2021 13:18*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	25.4		1.52	4.57	1	10/28/2021 14:29	WG1764428
Residual Range Organics (RRO)	46.0		3.81	11.4	1	10/28/2021 14:29	WG1764428
(S) o-Terphenyl	*34.6*			*18.0-148*		*10/28/2021 14:29*	WG1764428

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00481	J	0.00263	0.00686	1	10/28/2021 13:23	WG1764422
Acenaphthene	0.00516	J	0.00239	0.00686	1	10/28/2021 13:23	WG1764422
Acenaphthylene	U		0.00247	0.00686	1	10/28/2021 13:23	WG1764422
Benzo(a)anthracene	0.00895		0.00198	0.00686	1	10/28/2021 13:23	WG1764422
Benzo(a)pyrene	0.00489	J	0.00205	0.00686	1	10/28/2021 13:23	WG1764422
Benzo(b)fluoranthene	0.00993		0.00175	0.00686	1	10/28/2021 13:23	WG1764422
Benzo(g,h,i)perylene	0.00656	J	0.00202	0.00686	1	10/28/2021 13:23	WG1764422
Benzo(k)fluoranthene	U		0.00246	0.00686	1	10/28/2021 13:23	WG1764422
Chrysene	0.0117		0.00265	0.00686	1	10/28/2021 13:23	WG1764422

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	U		0.00197	0.00686	1	10/28/2021 13:23	WG1764422
Fluoranthene	0.00979		0.00259	0.00686	1	10/28/2021 13:23	WG1764422
Fluorene	0.00932		0.00234	0.00686	1	10/28/2021 13:23	WG1764422
Indeno(1,2,3-cd)pyrene	0.00296	J	0.00207	0.00686	1	10/28/2021 13:23	WG1764422
Naphthalene	0.0772		0.00466	0.0229	1	10/28/2021 13:23	WG1764422
Phenanthrene	0.0652		0.00264	0.00686	1	10/28/2021 13:23	WG1764422
Pyrene	0.0126		0.00229	0.00686	1	10/28/2021 13:23	WG1764422
1-Methylnaphthalene	0.129		0.00513	0.0229	1	10/28/2021 13:23	WG1764422
2-Methylnaphthalene	0.183		0.00488	0.0229	1	10/28/2021 13:23	WG1764422
2-Chloronaphthalene	U		0.00532	0.0229	1	10/28/2021 13:23	WG1764422
(S) Nitrobenzene-d5	*82.8*			*14.0-149*		*10/28/2021 13:23*	WG1764422
(S) 2-Fluorobiphenyl	*78.1*			*34.0-125*		*10/28/2021 13:23*	WG1764422
(S) p-Terphenyl-d14	*90.2*			*23.0-120*		*10/28/2021 13:23*	WG1764422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.4		1	10/25/2021 08:48	WG1762222

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0216	0.0479	1	10/26/2021 10:42	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.97		0.120	1.20	5	10/27/2021 19:34	WG1763566
Barium	115		0.182	3.00	5	10/27/2021 19:34	WG1763566
Cadmium	U		0.102	1.20	5	10/27/2021 19:34	WG1763566
Chromium	18.7		0.355	5.99	5	10/27/2021 19:34	WG1763566
Lead	8.13		0.119	2.40	5	10/27/2021 19:34	WG1763566
Selenium	U		0.216	3.00	5	10/27/2021 19:34	WG1763566
Silver	U		0.104	0.599	5	10/27/2021 19:34	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0518	0.0710	1	10/26/2021 13:38	WG1763431
Acrylonitrile	U		0.00513	0.0177	1	10/26/2021 13:38	WG1763431
Benzene	U		0.000663	0.00142	1	10/26/2021 13:38	WG1763431
Bromobenzene	U		0.00128	0.0177	1	10/26/2021 13:38	WG1763431
Bromodichloromethane	U		0.00103	0.00355	1	10/26/2021 13:38	WG1763431
Bromoform	U		0.00166	0.0355	1	10/26/2021 13:38	WG1763431
Bromomethane	U		0.00280	0.0177	1	10/26/2021 13:38	WG1763431
n-Butylbenzene	U		0.00745	0.0177	1	10/26/2021 13:38	WG1763431
sec-Butylbenzene	U		0.00409	0.0177	1	10/26/2021 13:38	WG1763431
tert-Butylbenzene	U		0.00277	0.00710	1	10/26/2021 13:38	WG1763431
Carbon tetrachloride	U		0.00128	0.00710	1	10/26/2021 13:38	WG1763431
Chlorobenzene	U		0.000298	0.00355	1	10/26/2021 13:38	WG1763431
Chlorodibromomethane	U		0.000869	0.00355	1	10/26/2021 13:38	WG1763431
Chloroethane	U		0.00241	0.00710	1	10/26/2021 13:38	WG1763431
Chloroform	U		0.00146	0.00355	1	10/26/2021 13:38	WG1763431
Chloromethane	U	C3	0.00618	0.0177	1	10/26/2021 13:38	WG1763431
2-Chlorotoluene	U		0.00123	0.00355	1	10/26/2021 13:38	WG1763431
4-Chlorotoluene	U		0.000639	0.00710	1	10/26/2021 13:38	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00554	0.0355	1	10/26/2021 13:38	WG1763431
1,2-Dibromoethane	U		0.000920	0.00355	1	10/26/2021 13:38	WG1763431
Dibromomethane	U		0.00106	0.00710	1	10/26/2021 13:38	WG1763431
1,2-Dichlorobenzene	U		0.000603	0.00710	1	10/26/2021 13:38	WG1763431
1,3-Dichlorobenzene	U		0.000852	0.00710	1	10/26/2021 13:38	WG1763431
1,4-Dichlorobenzene	U		0.000994	0.00710	1	10/26/2021 13:38	WG1763431
Dichlorodifluoromethane	U		0.00229	0.00355	1	10/26/2021 13:38	WG1763431
1,1-Dichloroethane	U		0.000697	0.00355	1	10/26/2021 13:38	WG1763431
1,2-Dichloroethane	U		0.000922	0.00355	1	10/26/2021 13:38	WG1763431
1,1-Dichloroethene	U	C3	0.000860	0.00355	1	10/26/2021 13:38	WG1763431
cis-1,2-Dichloroethene	U		0.00104	0.00355	1	10/26/2021 13:38	WG1763431
trans-1,2-Dichloroethene	U		0.00148	0.00710	1	10/26/2021 13:38	WG1763431
1,2-Dichloropropane	U		0.00202	0.00710	1	10/26/2021 13:38	WG1763431
1,1-Dichloropropene	U		0.00115	0.00355	1	10/26/2021 13:38	WG1763431
1,3-Dichloropropane	U		0.000711	0.00710	1	10/26/2021 13:38	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00107	0.00355	1	10/26/2021 13:38	WG1763431
trans-1,3-Dichloropropene	U		0.00162	0.00710	1	10/26/2021 13:38	WG1763431
2,2-Dichloropropane	U	C3	0.00196	0.00355	1	10/26/2021 13:38	WG1763431
Di-isopropyl ether	U		0.000582	0.00142	1	10/26/2021 13:38	WG1763431
Ethylbenzene	U		0.00105	0.00355	1	10/26/2021 13:38	WG1763431
Hexachloro-1,3-butadiene	U		0.00852	0.0355	1	10/26/2021 13:38	WG1763431
Isopropylbenzene	U		0.000603	0.00355	1	10/26/2021 13:38	WG1763431
p-Isopropyltoluene	U		0.00362	0.00710	1	10/26/2021 13:38	WG1763431
2-Butanone (MEK)	U		0.0902	0.142	1	10/26/2021 13:38	WG1763431
Methylene Chloride	U		0.00943	0.0355	1	10/26/2021 13:38	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00324	0.0355	1	10/26/2021 13:38	WG1763431
Methyl tert-butyl ether	U		0.000497	0.00142	1	10/26/2021 13:38	WG1763431
Naphthalene	U		0.00693	0.0177	1	10/26/2021 13:38	WG1763431
n-Propylbenzene	U		0.00135	0.00710	1	10/26/2021 13:38	WG1763431
Styrene	U		0.000325	0.0177	1	10/26/2021 13:38	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00135	0.00355	1	10/26/2021 13:38	WG1763431
1,1,2,2-Tetrachloroethane	U		0.000987	0.00355	1	10/26/2021 13:38	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00107	0.00355	1	10/26/2021 13:38	WG1763431
Tetrachloroethene	U		0.00127	0.00355	1	10/26/2021 13:38	WG1763431
Toluene	0.00192	J	0.00185	0.00710	1	10/26/2021 13:38	WG1763431
1,2,3-Trichlorobenzene	U		0.0104	0.0177	1	10/26/2021 13:38	WG1763431
1,2,4-Trichlorobenzene	U		0.00625	0.0177	1	10/26/2021 13:38	WG1763431
1,1,1-Trichloroethane	U		0.00131	0.00355	1	10/26/2021 13:38	WG1763431
1,1,2-Trichloroethane	U		0.000848	0.00355	1	10/26/2021 13:38	WG1763431
Trichloroethene	U		0.000829	0.00142	1	10/26/2021 13:38	WG1763431
Trichlorofluoromethane	U	C3	0.00117	0.00355	1	10/26/2021 13:38	WG1763431
1,2,3-Trichloropropane	U		0.00230	0.0177	1	10/26/2021 13:38	WG1763431
1,2,4-Trimethylbenzene	U		0.00224	0.00710	1	10/26/2021 13:38	WG1763431
1,2,3-Trimethylbenzene	U		0.00224	0.00710	1	10/26/2021 13:38	WG1763431
Vinyl chloride	U	C3	0.00165	0.00355	1	10/26/2021 13:38	WG1763431
1,3,5-Trimethylbenzene	U		0.00284	0.00710	1	10/26/2021 13:38	WG1763431
Xylenes, Total	U		0.00125	0.00923	1	10/26/2021 13:38	WG1763431
(S) Toluene-d8	*123*			*75.0-131*		*10/26/2021 13:38*	WG1763431
(S) 4-Bromofluorobenzene	*89.4*			*67.0-138*		*10/26/2021 13:38*	WG1763431
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/26/2021 13:38*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.59	4.79	1	10/28/2021 11:05	WG1764428
Residual Range Organics (RRO)	U		3.99	12.0	1	10/28/2021 11:05	WG1764428
(S) o-Terphenyl	*38.5*			*18.0-148*		*10/28/2021 11:05*	WG1764428

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.9		1	10/25/2021 08:48	WG1762222

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0207	0.0460	1	10/26/2021 10:44	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.86		0.115	1.15	5	10/27/2021 19:37	WG1763566
Barium	94.0		0.175	2.88	5	10/27/2021 19:37	WG1763566
Cadmium	0.288	J	0.0984	1.15	5	10/27/2021 19:37	WG1763566
Chromium	20.2		0.341	5.76	5	10/27/2021 19:37	WG1763566
Lead	13.3		0.114	2.30	5	10/27/2021 19:37	WG1763566
Selenium	0.372	J	0.207	2.88	5	10/27/2021 19:37	WG1763566
Silver	U		0.0996	0.576	5	10/27/2021 19:37	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0530	0.0726	1.13	10/26/2021 13:57	WG1763431
Acrylonitrile	U		0.00524	0.0181	1.13	10/26/2021 13:57	WG1763431
Benzene	U		0.000679	0.00145	1.13	10/26/2021 13:57	WG1763431
Bromobenzene	U		0.00131	0.0181	1.13	10/26/2021 13:57	WG1763431
Bromodichloromethane	U		0.00105	0.00364	1.13	10/26/2021 13:57	WG1763431
Bromoform	U		0.00170	0.0364	1.13	10/26/2021 13:57	WG1763431
Bromomethane	U		0.00287	0.0181	1.13	10/26/2021 13:57	WG1763431
n-Butylbenzene	U		0.00762	0.0181	1.13	10/26/2021 13:57	WG1763431
sec-Butylbenzene	U		0.00418	0.0181	1.13	10/26/2021 13:57	WG1763431
tert-Butylbenzene	U		0.00283	0.00726	1.13	10/26/2021 13:57	WG1763431
Carbon tetrachloride	U		0.00130	0.00726	1.13	10/26/2021 13:57	WG1763431
Chlorobenzene	U		0.000305	0.00364	1.13	10/26/2021 13:57	WG1763431
Chlorodibromomethane	U		0.000889	0.00364	1.13	10/26/2021 13:57	WG1763431
Chloroethane	U		0.00247	0.00726	1.13	10/26/2021 13:57	WG1763431
Chloroform	U		0.00149	0.00364	1.13	10/26/2021 13:57	WG1763431
Chloromethane	U	C3	0.00632	0.0181	1.13	10/26/2021 13:57	WG1763431
2-Chlorotoluene	U		0.00126	0.00364	1.13	10/26/2021 13:57	WG1763431
4-Chlorotoluene	U		0.000654	0.00726	1.13	10/26/2021 13:57	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00567	0.0364	1.13	10/26/2021 13:57	WG1763431
1,2-Dibromoethane	U		0.000941	0.00364	1.13	10/26/2021 13:57	WG1763431
Dibromomethane	U		0.00109	0.00726	1.13	10/26/2021 13:57	WG1763431
1,2-Dichlorobenzene	U		0.000617	0.00726	1.13	10/26/2021 13:57	WG1763431
1,3-Dichlorobenzene	U		0.000871	0.00726	1.13	10/26/2021 13:57	WG1763431
1,4-Dichlorobenzene	U		0.00102	0.00726	1.13	10/26/2021 13:57	WG1763431
Dichlorodifluoromethane	U		0.00234	0.00364	1.13	10/26/2021 13:57	WG1763431
1,1-Dichloroethane	U		0.000713	0.00364	1.13	10/26/2021 13:57	WG1763431
1,2-Dichloroethane	U		0.000942	0.00364	1.13	10/26/2021 13:57	WG1763431
1,1-Dichloroethene	U	C3	0.000880	0.00364	1.13	10/26/2021 13:57	WG1763431
cis-1,2-Dichloroethene	U		0.00107	0.00364	1.13	10/26/2021 13:57	WG1763431
trans-1,2-Dichloroethene	U		0.00152	0.00726	1.13	10/26/2021 13:57	WG1763431
1,2-Dichloropropane	U		0.00206	0.00726	1.13	10/26/2021 13:57	WG1763431
1,1-Dichloropropene	U		0.00117	0.00364	1.13	10/26/2021 13:57	WG1763431
1,3-Dichloropropane	U		0.000728	0.00726	1.13	10/26/2021 13:57	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00110	0.00364	1.13	10/26/2021 13:57	WG1763431
trans-1,3-Dichloropropene	U		0.00166	0.00726	1.13	10/26/2021 13:57	WG1763431
2,2-Dichloropropane	U	C3	0.00201	0.00364	1.13	10/26/2021 13:57	WG1763431
Di-isopropyl ether	U		0.000595	0.00145	1.13	10/26/2021 13:57	WG1763431
Ethylbenzene	U		0.00107	0.00364	1.13	10/26/2021 13:57	WG1763431
Hexachloro-1,3-butadiene	U		0.00871	0.0364	1.13	10/26/2021 13:57	WG1763431
Isopropylbenzene	U		0.000617	0.00364	1.13	10/26/2021 13:57	WG1763431
p-Isopropyltoluene	U		0.00370	0.00726	1.13	10/26/2021 13:57	WG1763431
2-Butanone (MEK)	U		0.0923	0.145	1.13	10/26/2021 13:57	WG1763431
Methylene Chloride	U		0.00964	0.0364	1.13	10/26/2021 13:57	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00332	0.0364	1.13	10/26/2021 13:57	WG1763431
Methyl tert-butyl ether	U		0.000509	0.00145	1.13	10/26/2021 13:57	WG1763431
Naphthalene	U		0.00708	0.0181	1.13	10/26/2021 13:57	WG1763431
n-Propylbenzene	U		0.00138	0.00726	1.13	10/26/2021 13:57	WG1763431
Styrene	U		0.000333	0.0181	1.13	10/26/2021 13:57	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00138	0.00364	1.13	10/26/2021 13:57	WG1763431
1,1,2,2-Tetrachloroethane	U		0.00101	0.00364	1.13	10/26/2021 13:57	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00110	0.00364	1.13	10/26/2021 13:57	WG1763431
Tetrachloroethene	U		0.00130	0.00364	1.13	10/26/2021 13:57	WG1763431
Toluene	0.00338	J	0.00189	0.00726	1.13	10/26/2021 13:57	WG1763431
1,2,3-Trichlorobenzene	U		0.0106	0.0181	1.13	10/26/2021 13:57	WG1763431
1,2,4-Trichlorobenzene	U		0.00639	0.0181	1.13	10/26/2021 13:57	WG1763431
1,1,1-Trichloroethane	U		0.00134	0.00364	1.13	10/26/2021 13:57	WG1763431
1,1,2-Trichloroethane	U		0.000868	0.00364	1.13	10/26/2021 13:57	WG1763431
Trichloroethene	U		0.000848	0.00145	1.13	10/26/2021 13:57	WG1763431
Trichlorofluoromethane	U	C3	0.00120	0.00364	1.13	10/26/2021 13:57	WG1763431
1,2,3-Trichloropropane	U		0.00235	0.0181	1.13	10/26/2021 13:57	WG1763431
1,2,4-Trimethylbenzene	U		0.00230	0.00726	1.13	10/26/2021 13:57	WG1763431
1,2,3-Trimethylbenzene	U		0.00230	0.00726	1.13	10/26/2021 13:57	WG1763431
Vinyl chloride	U	C3	0.00168	0.00364	1.13	10/26/2021 13:57	WG1763431
1,3,5-Trimethylbenzene	U		0.00290	0.00726	1.13	10/26/2021 13:57	WG1763431
Xylenes, Total	0.00585	J	0.00128	0.00945	1.13	10/26/2021 13:57	WG1763431
(S) Toluene-d8	*125*			*75.0-131*		*10/26/2021 13:57*	WG1763431
(S) 4-Bromofluorobenzene	*90.4*			*67.0-138*		*10/26/2021 13:57*	WG1763431
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/26/2021 13:57*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	7.56		1.53	4.60	1	10/28/2021 13:48	WG1764428
Residual Range Organics (RRO)	19.1		3.83	11.5	1	10/28/2021 13:48	WG1764428
(S) o-Terphenyl	*58.7*			*18.0-148*		*10/28/2021 13:48*	WG1764428

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00439	J	0.00265	0.00691	1	10/28/2021 13:41	WG1764422
Acenaphthene	U		0.00241	0.00691	1	10/28/2021 13:41	WG1764422
Acenaphthylene	U		0.00249	0.00691	1	10/28/2021 13:41	WG1764422
Benzo(a)anthracene	0.00600	J	0.00199	0.00691	1	10/28/2021 13:41	WG1764422
Benzo(a)pyrene	0.00403	J	0.00206	0.00691	1	10/28/2021 13:41	WG1764422
Benzo(b)fluoranthene	0.00583	J	0.00176	0.00691	1	10/28/2021 13:41	WG1764422
Benzo(g,h,i)perylene	0.00368	J	0.00204	0.00691	1	10/28/2021 13:41	WG1764422
Benzo(k)fluoranthene	U		0.00248	0.00691	1	10/28/2021 13:41	WG1764422
Chrysene	0.00634	J	0.00267	0.00691	1	10/28/2021 13:41	WG1764422

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	U		0.00198	0.00691	1	10/28/2021 13:41	WG1764422
Fluoranthene	0.0110		0.00261	0.00691	1	10/28/2021 13:41	WG1764422
Fluorene	0.00311	J	0.00236	0.00691	1	10/28/2021 13:41	WG1764422
Indeno(1,2,3-cd)pyrene	0.00374	J	0.00208	0.00691	1	10/28/2021 13:41	WG1764422
Naphthalene	0.0125	J	0.00470	0.0230	1	10/28/2021 13:41	WG1764422
Phenanthrene	0.0195		0.00266	0.00691	1	10/28/2021 13:41	WG1764422
Pyrene	0.0107		0.00230	0.00691	1	10/28/2021 13:41	WG1764422
1-Methylnaphthalene	0.0268		0.00517	0.0230	1	10/28/2021 13:41	WG1764422
2-Methylnaphthalene	0.0284		0.00492	0.0230	1	10/28/2021 13:41	WG1764422
2-Chloronaphthalene	U		0.00536	0.0230	1	10/28/2021 13:41	WG1764422
(S) Nitrobenzene-d5	*85.0*			*14.0-149*		*10/28/2021 13:41*	WG1764422
(S) 2-Fluorobiphenyl	*84.4*			*34.0-125*		*10/28/2021 13:41*	WG1764422
(S) p-Terphenyl-d14	*94.1*			*23.0-120*		*10/28/2021 13:41*	WG1764422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.0		1	10/25/2021 08:48	WG1762222

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0217	0.0482	1	10/26/2021 10:47	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.00		0.120	1.20	5	10/27/2021 19:40	WG1763566
Barium	114		0.183	3.01	5	10/27/2021 19:40	WG1763566
Cadmium	U		0.103	1.20	5	10/27/2021 19:40	WG1763566
Chromium	13.9		0.357	6.02	5	10/27/2021 19:40	WG1763566
Lead	6.01		0.119	2.41	5	10/27/2021 19:40	WG1763566
Selenium	0.266	J	0.217	3.01	5	10/27/2021 19:40	WG1763566
Silver	U		0.104	0.602	5	10/27/2021 19:40	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0530	0.0727	1	10/26/2021 14:17	WG1763431
Acrylonitrile	U		0.00525	0.0182	1	10/26/2021 14:17	WG1763431
Benzene	U		0.000679	0.00145	1	10/26/2021 14:17	WG1763431
Bromobenzene	U		0.00131	0.0182	1	10/26/2021 14:17	WG1763431
Bromodichloromethane	U		0.00105	0.00363	1	10/26/2021 14:17	WG1763431
Bromoform	U		0.00170	0.0363	1	10/26/2021 14:17	WG1763431
Bromomethane	U		0.00286	0.0182	1	10/26/2021 14:17	WG1763431
n-Butylbenzene	U		0.00763	0.0182	1	10/26/2021 14:17	WG1763431
sec-Butylbenzene	U		0.00419	0.0182	1	10/26/2021 14:17	WG1763431
tert-Butylbenzene	U		0.00283	0.00727	1	10/26/2021 14:17	WG1763431
Carbon tetrachloride	U		0.00131	0.00727	1	10/26/2021 14:17	WG1763431
Chlorobenzene	U		0.000305	0.00363	1	10/26/2021 14:17	WG1763431
Chlorodibromomethane	U		0.000889	0.00363	1	10/26/2021 14:17	WG1763431
Chloroethane	U		0.00247	0.00727	1	10/26/2021 14:17	WG1763431
Chloroform	U		0.00150	0.00363	1	10/26/2021 14:17	WG1763431
Chloromethane	U	C3	0.00632	0.0182	1	10/26/2021 14:17	WG1763431
2-Chlorotoluene	U		0.00126	0.00363	1	10/26/2021 14:17	WG1763431
4-Chlorotoluene	U		0.000654	0.00727	1	10/26/2021 14:17	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00567	0.0363	1	10/26/2021 14:17	WG1763431
1,2-Dibromoethane	U		0.000942	0.00363	1	10/26/2021 14:17	WG1763431
Dibromomethane	U		0.00109	0.00727	1	10/26/2021 14:17	WG1763431
1,2-Dichlorobenzene	U		0.000618	0.00727	1	10/26/2021 14:17	WG1763431
1,3-Dichlorobenzene	U		0.000872	0.00727	1	10/26/2021 14:17	WG1763431
1,4-Dichlorobenzene	U		0.00102	0.00727	1	10/26/2021 14:17	WG1763431
Dichlorodifluoromethane	U		0.00234	0.00363	1	10/26/2021 14:17	WG1763431
1,1-Dichloroethane	U		0.000714	0.00363	1	10/26/2021 14:17	WG1763431
1,2-Dichloroethane	U		0.000943	0.00363	1	10/26/2021 14:17	WG1763431
1,1-Dichloroethene	U	C3	0.000881	0.00363	1	10/26/2021 14:17	WG1763431
cis-1,2-Dichloroethene	U		0.00107	0.00363	1	10/26/2021 14:17	WG1763431
trans-1,2-Dichloroethene	U		0.00151	0.00727	1	10/26/2021 14:17	WG1763431
1,2-Dichloropropane	U		0.00206	0.00727	1	10/26/2021 14:17	WG1763431
1,1-Dichloropropene	U		0.00118	0.00363	1	10/26/2021 14:17	WG1763431
1,3-Dichloropropane	U		0.000728	0.00727	1	10/26/2021 14:17	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00110	0.00363	1	10/26/2021 14:17	WG1763431
trans-1,3-Dichloropropene	U		0.00166	0.00727	1	10/26/2021 14:17	WG1763431
2,2-Dichloropropane	U	C3	0.00201	0.00363	1	10/26/2021 14:17	WG1763431
Di-isopropyl ether	U		0.000596	0.00145	1	10/26/2021 14:17	WG1763431
Ethylbenzene	U		0.00107	0.00363	1	10/26/2021 14:17	WG1763431
Hexachloro-1,3-butadiene	U		0.00872	0.0363	1	10/26/2021 14:17	WG1763431
Isopropylbenzene	U		0.000618	0.00363	1	10/26/2021 14:17	WG1763431
p-Isopropyltoluene	U		0.00371	0.00727	1	10/26/2021 14:17	WG1763431
2-Butanone (MEK)	U		0.0923	0.145	1	10/26/2021 14:17	WG1763431
Methylene Chloride	U		0.00965	0.0363	1	10/26/2021 14:17	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00331	0.0363	1	10/26/2021 14:17	WG1763431
Methyl tert-butyl ether	U		0.000509	0.00145	1	10/26/2021 14:17	WG1763431
Naphthalene	U		0.00709	0.0182	1	10/26/2021 14:17	WG1763431
n-Propylbenzene	U		0.00138	0.00727	1	10/26/2021 14:17	WG1763431
Styrene	U		0.000333	0.0182	1	10/26/2021 14:17	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00138	0.00363	1	10/26/2021 14:17	WG1763431
1,1,2,2-Tetrachloroethane	U		0.00101	0.00363	1	10/26/2021 14:17	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00110	0.00363	1	10/26/2021 14:17	WG1763431
Tetrachloroethene	U		0.00130	0.00363	1	10/26/2021 14:17	WG1763431
Toluene	U		0.00189	0.00727	1	10/26/2021 14:17	WG1763431
1,2,3-Trichlorobenzene	U		0.0107	0.0182	1	10/26/2021 14:17	WG1763431
1,2,4-Trichlorobenzene	U		0.00639	0.0182	1	10/26/2021 14:17	WG1763431
1,1,1-Trichloroethane	U		0.00134	0.00363	1	10/26/2021 14:17	WG1763431
1,1,2-Trichloroethane	U		0.000868	0.00363	1	10/26/2021 14:17	WG1763431
Trichloroethene	U		0.000849	0.00145	1	10/26/2021 14:17	WG1763431
Trichlorofluoromethane	U	C3	0.00120	0.00363	1	10/26/2021 14:17	WG1763431
1,2,3-Trichloropropane	U		0.00235	0.0182	1	10/26/2021 14:17	WG1763431
1,2,4-Trimethylbenzene	U		0.00230	0.00727	1	10/26/2021 14:17	WG1763431
1,2,3-Trimethylbenzene	U		0.00230	0.00727	1	10/26/2021 14:17	WG1763431
Vinyl chloride	U	C3	0.00169	0.00363	1	10/26/2021 14:17	WG1763431
1,3,5-Trimethylbenzene	U		0.00291	0.00727	1	10/26/2021 14:17	WG1763431
Xylenes, Total	U		0.00128	0.00945	1	10/26/2021 14:17	WG1763431
(S) Toluene-d8	*123*			*75.0-131*		*10/26/2021 14:17*	WG1763431
(S) 4-Bromofluorobenzene	*88.9*			*67.0-138*		*10/26/2021 14:17*	WG1763431
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/26/2021 14:17*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.60	4.82	1	10/28/2021 11:18	WG1764428
Residual Range Organics (RRO)	U		4.01	12.0	1	10/28/2021 11:18	WG1764428
(S) o-Terphenyl	*54.6*			*18.0-148*		*10/28/2021 11:18*	WG1764428

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	81.9		1	10/25/2021 08:48	WG1762222

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0295	J	0.0220	0.0488	1	10/26/2021 10:50	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.98		0.122	1.22	5	10/27/2021 19:44	WG1763566
Barium	145		0.186	3.05	5	10/27/2021 19:44	WG1763566
Cadmium	0.284	J	0.104	1.22	5	10/27/2021 19:44	WG1763566
Chromium	18.3		0.361	6.10	5	10/27/2021 19:44	WG1763566
Lead	71.2		0.121	2.44	5	10/27/2021 19:44	WG1763566
Selenium	0.300	J	0.220	3.05	5	10/27/2021 19:44	WG1763566
Silver	0.233	J	0.106	0.610	5	10/27/2021 19:44	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0538	0.0737	1	10/26/2021 14:36	WG1763431
Acrylonitrile	U		0.00532	0.0184	1	10/26/2021 14:36	WG1763431
Benzene	0.00580		0.000688	0.00147	1	10/26/2021 14:36	WG1763431
Bromobenzene	U		0.00133	0.0184	1	10/26/2021 14:36	WG1763431
Bromodichloromethane	U		0.00107	0.00368	1	10/26/2021 14:36	WG1763431
Bromoform	U		0.00172	0.0368	1	10/26/2021 14:36	WG1763431
Bromomethane	U		0.00290	0.0184	1	10/26/2021 14:36	WG1763431
n-Butylbenzene	U		0.00773	0.0184	1	10/26/2021 14:36	WG1763431
sec-Butylbenzene	U		0.00424	0.0184	1	10/26/2021 14:36	WG1763431
tert-Butylbenzene	U		0.00287	0.00737	1	10/26/2021 14:36	WG1763431
Carbon tetrachloride	U		0.00132	0.00737	1	10/26/2021 14:36	WG1763431
Chlorobenzene	U		0.000309	0.00368	1	10/26/2021 14:36	WG1763431
Chlorodibromomethane	U		0.000902	0.00368	1	10/26/2021 14:36	WG1763431
Chloroethane	U		0.00250	0.00737	1	10/26/2021 14:36	WG1763431
Chloroform	U		0.00152	0.00368	1	10/26/2021 14:36	WG1763431
Chloromethane	U	C3	0.00641	0.0184	1	10/26/2021 14:36	WG1763431
2-Chlorotoluene	U		0.00127	0.00368	1	10/26/2021 14:36	WG1763431
4-Chlorotoluene	U		0.000663	0.00737	1	10/26/2021 14:36	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00575	0.0368	1	10/26/2021 14:36	WG1763431
1,2-Dibromoethane	U		0.000955	0.00368	1	10/26/2021 14:36	WG1763431
Dibromomethane	U		0.00110	0.00737	1	10/26/2021 14:36	WG1763431
1,2-Dichlorobenzene	U		0.000626	0.00737	1	10/26/2021 14:36	WG1763431
1,3-Dichlorobenzene	U		0.000884	0.00737	1	10/26/2021 14:36	WG1763431
1,4-Dichlorobenzene	U		0.00103	0.00737	1	10/26/2021 14:36	WG1763431
Dichlorodifluoromethane	U		0.00237	0.00368	1	10/26/2021 14:36	WG1763431
1,1-Dichloroethane	U		0.000723	0.00368	1	10/26/2021 14:36	WG1763431
1,2-Dichloroethane	U		0.000956	0.00368	1	10/26/2021 14:36	WG1763431
1,1-Dichloroethene	U	C3	0.000893	0.00368	1	10/26/2021 14:36	WG1763431
cis-1,2-Dichloroethene	U		0.00108	0.00368	1	10/26/2021 14:36	WG1763431
trans-1,2-Dichloroethene	U		0.00153	0.00737	1	10/26/2021 14:36	WG1763431
1,2-Dichloropropane	U		0.00209	0.00737	1	10/26/2021 14:36	WG1763431
1,1-Dichloropropene	U		0.00119	0.00368	1	10/26/2021 14:36	WG1763431
1,3-Dichloropropane	U		0.000738	0.00737	1	10/26/2021 14:36	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00112	0.00368	1	10/26/2021 14:36	WG1763431
trans-1,3-Dichloropropene	U		0.00168	0.00737	1	10/26/2021 14:36	WG1763431
2,2-Dichloropropane	U	C3	0.00203	0.00368	1	10/26/2021 14:36	WG1763431
Di-isopropyl ether	U		0.000604	0.00147	1	10/26/2021 14:36	WG1763431
Ethylbenzene	0.0122		0.00109	0.00368	1	10/26/2021 14:36	WG1763431
Hexachloro-1,3-butadiene	U		0.00884	0.0368	1	10/26/2021 14:36	WG1763431
Isopropylbenzene	0.00324	J	0.000626	0.00368	1	10/26/2021 14:36	WG1763431
p-Isopropyltoluene	0.00891		0.00376	0.00737	1	10/26/2021 14:36	WG1763431
2-Butanone (MEK)	U		0.0935	0.147	1	10/26/2021 14:36	WG1763431
Methylene Chloride	U		0.00978	0.0368	1	10/26/2021 14:36	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00336	0.0368	1	10/26/2021 14:36	WG1763431
Methyl tert-butyl ether	U		0.000516	0.00147	1	10/26/2021 14:36	WG1763431
Naphthalene	0.0436		0.00719	0.0184	1	10/26/2021 14:36	WG1763431
n-Propylbenzene	0.00414	J	0.00140	0.00737	1	10/26/2021 14:36	WG1763431
Styrene	U		0.000337	0.0184	1	10/26/2021 14:36	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00140	0.00368	1	10/26/2021 14:36	WG1763431
1,1,2,2-Tetrachloroethane	U		0.00102	0.00368	1	10/26/2021 14:36	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00111	0.00368	1	10/26/2021 14:36	WG1763431
Tetrachloroethene	U		0.00132	0.00368	1	10/26/2021 14:36	WG1763431
Toluene	0.0687		0.00192	0.00737	1	10/26/2021 14:36	WG1763431
1,2,3-Trichlorobenzene	U		0.0108	0.0184	1	10/26/2021 14:36	WG1763431
1,2,4-Trichlorobenzene	U		0.00648	0.0184	1	10/26/2021 14:36	WG1763431
1,1,1-Trichloroethane	U		0.00136	0.00368	1	10/26/2021 14:36	WG1763431
1,1,2-Trichloroethane	U		0.000880	0.00368	1	10/26/2021 14:36	WG1763431
Trichloroethene	U		0.000860	0.00147	1	10/26/2021 14:36	WG1763431
Trichlorofluoromethane	U	C3	0.00122	0.00368	1	10/26/2021 14:36	WG1763431
1,2,3-Trichloropropane	U		0.00239	0.0184	1	10/26/2021 14:36	WG1763431
1,2,4-Trimethylbenzene	0.0318		0.00233	0.00737	1	10/26/2021 14:36	WG1763431
1,2,3-Trimethylbenzene	0.0317		0.00233	0.00737	1	10/26/2021 14:36	WG1763431
Vinyl chloride	U	C3	0.00171	0.00368	1	10/26/2021 14:36	WG1763431
1,3,5-Trimethylbenzene	0.00907		0.00295	0.00737	1	10/26/2021 14:36	WG1763431
Xylenes, Total	0.0959		0.00130	0.00958	1	10/26/2021 14:36	WG1763431
(S) Toluene-d8	*120*			*75.0-131*		*10/26/2021 14:36*	WG1763431
(S) 4-Bromofluorobenzene	*89.0*			*67.0-138*		*10/26/2021 14:36*	WG1763431
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*10/26/2021 14:36*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	16.1		1.62	4.88	1	10/28/2021 13:34	WG1764428
Residual Range Organics (RRO)	22.1		4.06	12.2	1	10/28/2021 13:34	WG1764428
(S) o-Terphenyl	*40.8*			*18.0-148*		*10/28/2021 13:34*	WG1764428

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.0110		0.00281	0.00732	1	10/28/2021 13:58	WG1764422
Acenaphthene	0.00409	J	0.00255	0.00732	1	10/28/2021 13:58	WG1764422
Acenaphthylene	U		0.00264	0.00732	1	10/28/2021 13:58	WG1764422
Benzo(a)anthracene	0.00997		0.00211	0.00732	1	10/28/2021 13:58	WG1764422
Benzo(a)pyrene	0.00491	J	0.00219	0.00732	1	10/28/2021 13:58	WG1764422
Benzo(b)fluoranthene	0.00525	J	0.00187	0.00732	1	10/28/2021 13:58	WG1764422
Benzo(g,h,i)perylene	0.00238	J	0.00216	0.00732	1	10/28/2021 13:58	WG1764422
Benzo(k)fluoranthene	U		0.00262	0.00732	1	10/28/2021 13:58	WG1764422
Chrysene	0.0102		0.00283	0.00732	1	10/28/2021 13:58	WG1764422

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	U		0.00210	0.00732	1	10/28/2021 13:58	WG1764422
Fluoranthene	0.00748		0.00277	0.00732	1	10/28/2021 13:58	WG1764422
Fluorene	0.00587	J	0.00250	0.00732	1	10/28/2021 13:58	WG1764422
Indeno(1,2,3-cd)pyrene	U		0.00221	0.00732	1	10/28/2021 13:58	WG1764422
Naphthalene	0.144		0.00498	0.0244	1	10/28/2021 13:58	WG1764422
Phenanthrene	0.0630		0.00282	0.00732	1	10/28/2021 13:58	WG1764422
Pyrene	0.0115		0.00244	0.00732	1	10/28/2021 13:58	WG1764422
1-Methylnaphthalene	0.217		0.00548	0.0244	1	10/28/2021 13:58	WG1764422
2-Methylnaphthalene	0.276		0.00521	0.0244	1	10/28/2021 13:58	WG1764422
2-Chloronaphthalene	U		0.00569	0.0244	1	10/28/2021 13:58	WG1764422
(S) Nitrobenzene-d5	*73.6*			*14.0-149*		*10/28/2021 13:58*	WG1764422
(S) 2-Fluorobiphenyl	*66.4*			*34.0-125*		*10/28/2021 13:58*	WG1764422
(S) p-Terphenyl-d14	*74.6*			*23.0-120*		*10/28/2021 13:58*	WG1764422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.8		1	10/25/2021 08:41	WG1762223

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0212	0.0472	1	10/26/2021 10:57	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.13		0.118	1.18	5	10/27/2021 19:47	WG1763566
Barium	603		0.179	2.95	5	10/27/2021 19:47	WG1763566
Cadmium	0.382	J	0.101	1.18	5	10/27/2021 19:47	WG1763566
Chromium	11.0		0.349	5.90	5	10/27/2021 19:47	WG1763566
Lead	7.26		0.117	2.36	5	10/27/2021 19:47	WG1763566
Selenium	U		0.212	2.95	5	10/27/2021 19:47	WG1763566
Silver	U		0.102	0.590	5	10/27/2021 19:47	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0498	0.0682	1	10/26/2021 14:55	WG1763431
Acrylonitrile	U		0.00492	0.0170	1	10/26/2021 14:55	WG1763431
Benzene	0.0341		0.000637	0.00136	1	10/26/2021 14:55	WG1763431
Bromobenzene	U		0.00123	0.0170	1	10/26/2021 14:55	WG1763431
Bromodichloromethane	U		0.000989	0.00341	1	10/26/2021 14:55	WG1763431
Bromoform	U		0.00160	0.0341	1	10/26/2021 14:55	WG1763431
Bromomethane	U		0.00269	0.0170	1	10/26/2021 14:55	WG1763431
n-Butylbenzene	U		0.00716	0.0170	1	10/26/2021 14:55	WG1763431
sec-Butylbenzene	U		0.00393	0.0170	1	10/26/2021 14:55	WG1763431
tert-Butylbenzene	U		0.00266	0.00682	1	10/26/2021 14:55	WG1763431
Carbon tetrachloride	U		0.00122	0.00682	1	10/26/2021 14:55	WG1763431
Chlorobenzene	U		0.000286	0.00341	1	10/26/2021 14:55	WG1763431
Chlorodibromomethane	U		0.000835	0.00341	1	10/26/2021 14:55	WG1763431
Chloroethane	U		0.00232	0.00682	1	10/26/2021 14:55	WG1763431
Chloroform	U		0.00140	0.00341	1	10/26/2021 14:55	WG1763431
Chloromethane	U	C3	0.00593	0.0170	1	10/26/2021 14:55	WG1763431
2-Chlorotoluene	U		0.00118	0.00341	1	10/26/2021 14:55	WG1763431
4-Chlorotoluene	U		0.000614	0.00682	1	10/26/2021 14:55	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00532	0.0341	1	10/26/2021 14:55	WG1763431
1,2-Dibromoethane	U		0.000884	0.00341	1	10/26/2021 14:55	WG1763431
Dibromomethane	U		0.00102	0.00682	1	10/26/2021 14:55	WG1763431
1,2-Dichlorobenzene	U		0.000580	0.00682	1	10/26/2021 14:55	WG1763431
1,3-Dichlorobenzene	U		0.000818	0.00682	1	10/26/2021 14:55	WG1763431
1,4-Dichlorobenzene	U		0.000955	0.00682	1	10/26/2021 14:55	WG1763431
Dichlorodifluoromethane	U		0.00220	0.00341	1	10/26/2021 14:55	WG1763431
1,1-Dichloroethane	U		0.000670	0.00341	1	10/26/2021 14:55	WG1763431
1,2-Dichloroethane	U		0.000885	0.00341	1	10/26/2021 14:55	WG1763431
1,1-Dichloroethene	U	C3	0.000827	0.00341	1	10/26/2021 14:55	WG1763431
cis-1,2-Dichloroethene	U		0.00100	0.00341	1	10/26/2021 14:55	WG1763431
trans-1,2-Dichloroethene	U		0.00142	0.00682	1	10/26/2021 14:55	WG1763431
1,2-Dichloropropane	U		0.00194	0.00682	1	10/26/2021 14:55	WG1763431
1,1-Dichloropropene	U		0.00110	0.00341	1	10/26/2021 14:55	WG1763431
1,3-Dichloropropane	U		0.000683	0.00682	1	10/26/2021 14:55	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00103	0.00341	1	10/26/2021 14:55	WG1763431
trans-1,3-Dichloropropene	U		0.00155	0.00682	1	10/26/2021 14:55	WG1763431
2,2-Dichloropropane	U	C3	0.00188	0.00341	1	10/26/2021 14:55	WG1763431
Di-isopropyl ether	U		0.000559	0.00136	1	10/26/2021 14:55	WG1763431
Ethylbenzene	0.0185		0.00101	0.00341	1	10/26/2021 14:55	WG1763431
Hexachloro-1,3-butadiene	U		0.00818	0.0341	1	10/26/2021 14:55	WG1763431
Isopropylbenzene	0.00374		0.000580	0.00341	1	10/26/2021 14:55	WG1763431
p-Isopropyltoluene	0.0164		0.00348	0.00682	1	10/26/2021 14:55	WG1763431
2-Butanone (MEK)	U		0.0866	0.136	1	10/26/2021 14:55	WG1763431
Methylene Chloride	U		0.00906	0.0341	1	10/26/2021 14:55	WG1763431
4-Methyl-2-pentanone (MIBK)	0.0103	J	0.00311	0.0341	1	10/26/2021 14:55	WG1763431
Methyl tert-butyl ether	U		0.000477	0.00136	1	10/26/2021 14:55	WG1763431
Naphthalene	0.0536		0.00666	0.0170	1	10/26/2021 14:55	WG1763431
n-Propylbenzene	0.00367	J	0.00130	0.00682	1	10/26/2021 14:55	WG1763431
Styrene	U		0.000312	0.0170	1	10/26/2021 14:55	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00129	0.00341	1	10/26/2021 14:55	WG1763431
1,1,2,2-Tetrachloroethane	U		0.000948	0.00341	1	10/26/2021 14:55	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00103	0.00341	1	10/26/2021 14:55	WG1763431
Tetrachloroethene	U		0.00122	0.00341	1	10/26/2021 14:55	WG1763431
Toluene	0.143		0.00177	0.00682	1	10/26/2021 14:55	WG1763431
1,2,3-Trichlorobenzene	U		0.0100	0.0170	1	10/26/2021 14:55	WG1763431
1,2,4-Trichlorobenzene	U		0.00600	0.0170	1	10/26/2021 14:55	WG1763431
1,1,1-Trichloroethane	U		0.00126	0.00341	1	10/26/2021 14:55	WG1763431
1,1,2-Trichloroethane	U		0.000814	0.00341	1	10/26/2021 14:55	WG1763431
Trichloroethene	U		0.000797	0.00136	1	10/26/2021 14:55	WG1763431
Trichlorofluoromethane	U	C3	0.00113	0.00341	1	10/26/2021 14:55	WG1763431
1,2,3-Trichloropropane	U		0.00221	0.0170	1	10/26/2021 14:55	WG1763431
1,2,4-Trimethylbenzene	0.0449		0.00215	0.00682	1	10/26/2021 14:55	WG1763431
1,2,3-Trimethylbenzene	0.0400		0.00215	0.00682	1	10/26/2021 14:55	WG1763431
Vinyl chloride	U	C3	0.00158	0.00341	1	10/26/2021 14:55	WG1763431
1,3,5-Trimethylbenzene	0.0106		0.00273	0.00682	1	10/26/2021 14:55	WG1763431
Xylenes, Total	0.149		0.00120	0.00887	1	10/26/2021 14:55	WG1763431
(S) Toluene-d8	*120*			*75.0-131*		*10/26/2021 14:55*	WG1763431
(S) 4-Bromofluorobenzene	*91.3*			*67.0-138*		*10/26/2021 14:55*	WG1763431
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/26/2021 14:55*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	19.2		1.57	4.72	1	10/28/2021 14:15	WG1764428
Residual Range Organics (RRO)	45.1		3.93	11.8	1	10/28/2021 14:15	WG1764428
(S) o-Terphenyl	*35.7*			*18.0-148*		*10/28/2021 14:15*	WG1764428

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.4		1	10/25/2021 08:41	WG1762223

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0511	J	0.0233	0.0517	1	10/26/2021 11:00	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.42		0.129	1.29	5	10/27/2021 19:50	WG1763566
Barium	237		0.196	3.23	5	10/27/2021 19:50	WG1763566
Cadmium	0.473	J	0.110	1.29	5	10/27/2021 19:50	WG1763566
Chromium	19.0		0.383	6.46	5	10/27/2021 19:50	WG1763566
Lead	33.5		0.128	2.58	5	10/27/2021 19:50	WG1763566
Selenium	0.315	J	0.233	3.23	5	10/27/2021 19:50	WG1763566
Silver	0.115	J	0.112	0.646	5	10/27/2021 19:50	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	0.0733	J	0.0687	0.0941	1.23	10/26/2021 15:14	WG1763431
Acrylonitrile	U		0.00679	0.0236	1.23	10/26/2021 15:14	WG1763431
Benzene	0.0113		0.000878	0.00188	1.23	10/26/2021 15:14	WG1763431
Bromobenzene	U		0.00170	0.0236	1.23	10/26/2021 15:14	WG1763431
Bromodichloromethane	U		0.00136	0.00471	1.23	10/26/2021 15:14	WG1763431
Bromoform	U		0.00220	0.0471	1.23	10/26/2021 15:14	WG1763431
Bromomethane	U		0.00370	0.0236	1.23	10/26/2021 15:14	WG1763431
n-Butylbenzene	U		0.00988	0.0236	1.23	10/26/2021 15:14	WG1763431
sec-Butylbenzene	U		0.00542	0.0236	1.23	10/26/2021 15:14	WG1763431
tert-Butylbenzene	U		0.00367	0.00941	1.23	10/26/2021 15:14	WG1763431
Carbon tetrachloride	U		0.00168	0.00941	1.23	10/26/2021 15:14	WG1763431
Chlorobenzene	U		0.000395	0.00471	1.23	10/26/2021 15:14	WG1763431
Chlorodibromomethane	U		0.00115	0.00471	1.23	10/26/2021 15:14	WG1763431
Chloroethane	U		0.00320	0.00941	1.23	10/26/2021 15:14	WG1763431
Chloroform	U		0.00194	0.00471	1.23	10/26/2021 15:14	WG1763431
Chloromethane	U	C3	0.00819	0.0236	1.23	10/26/2021 15:14	WG1763431
2-Chlorotoluene	U		0.00162	0.00471	1.23	10/26/2021 15:14	WG1763431
4-Chlorotoluene	U		0.000848	0.00941	1.23	10/26/2021 15:14	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00734	0.0471	1.23	10/26/2021 15:14	WG1763431
1,2-Dibromoethane	U		0.00122	0.00471	1.23	10/26/2021 15:14	WG1763431
Dibromomethane	U		0.00141	0.00941	1.23	10/26/2021 15:14	WG1763431
1,2-Dichlorobenzene	U		0.000800	0.00941	1.23	10/26/2021 15:14	WG1763431
1,3-Dichlorobenzene	U		0.00113	0.00941	1.23	10/26/2021 15:14	WG1763431
1,4-Dichlorobenzene	U		0.00132	0.00941	1.23	10/26/2021 15:14	WG1763431
Dichlorodifluoromethane	U		0.00303	0.00471	1.23	10/26/2021 15:14	WG1763431
1,1-Dichloroethane	U		0.000924	0.00471	1.23	10/26/2021 15:14	WG1763431
1,2-Dichloroethane	U		0.00122	0.00471	1.23	10/26/2021 15:14	WG1763431
1,1-Dichloroethene	U	C3	0.00114	0.00471	1.23	10/26/2021 15:14	WG1763431
cis-1,2-Dichloroethene	U		0.00138	0.00471	1.23	10/26/2021 15:14	WG1763431
trans-1,2-Dichloroethene	U		0.00196	0.00941	1.23	10/26/2021 15:14	WG1763431
1,2-Dichloropropane	U		0.00268	0.00941	1.23	10/26/2021 15:14	WG1763431
1,1-Dichloropropene	U		0.00152	0.00471	1.23	10/26/2021 15:14	WG1763431
1,3-Dichloropropane	U		0.000943	0.00941	1.23	10/26/2021 15:14	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00142	0.00471	1.23	10/26/2021 15:14	WG1763431
trans-1,3-Dichloropropene	U		0.00214	0.00941	1.23	10/26/2021 15:14	WG1763431
2,2-Dichloropropane	U	C3	0.00260	0.00471	1.23	10/26/2021 15:14	WG1763431
Di-isopropyl ether	U		0.000771	0.00188	1.23	10/26/2021 15:14	WG1763431
Ethylbenzene	U		0.00139	0.00471	1.23	10/26/2021 15:14	WG1763431
Hexachloro-1,3-butadiene	U		0.0113	0.0471	1.23	10/26/2021 15:14	WG1763431
Isopropylbenzene	0.00301	J	0.000800	0.00471	1.23	10/26/2021 15:14	WG1763431
p-Isopropyltoluene	0.0137		0.00480	0.00941	1.23	10/26/2021 15:14	WG1763431
2-Butanone (MEK)	U		0.120	0.188	1.23	10/26/2021 15:14	WG1763431
Methylene Chloride	U		0.0125	0.0471	1.23	10/26/2021 15:14	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00428	0.0471	1.23	10/26/2021 15:14	WG1763431
Methyl tert-butyl ether	U		0.000659	0.00188	1.23	10/26/2021 15:14	WG1763431
Naphthalene	0.0430		0.00918	0.0236	1.23	10/26/2021 15:14	WG1763431
n-Propylbenzene	0.00395	J	0.00179	0.00941	1.23	10/26/2021 15:14	WG1763431
Styrene	U		0.000431	0.0236	1.23	10/26/2021 15:14	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00179	0.00471	1.23	10/26/2021 15:14	WG1763431
1,1,2,2-Tetrachloroethane	U		0.00131	0.00471	1.23	10/26/2021 15:14	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00142	0.00471	1.23	10/26/2021 15:14	WG1763431
Tetrachloroethene	U		0.00168	0.00471	1.23	10/26/2021 15:14	WG1763431
Toluene	0.0762		0.00245	0.00941	1.23	10/26/2021 15:14	WG1763431
1,2,3-Trichlorobenzene	U		0.0138	0.0236	1.23	10/26/2021 15:14	WG1763431
1,2,4-Trichlorobenzene	U		0.00828	0.0236	1.23	10/26/2021 15:14	WG1763431
1,1,1-Trichloroethane	U		0.00174	0.00471	1.23	10/26/2021 15:14	WG1763431
1,1,2-Trichloroethane	U		0.00112	0.00471	1.23	10/26/2021 15:14	WG1763431
Trichloroethene	U		0.00110	0.00188	1.23	10/26/2021 15:14	WG1763431
Trichlorofluoromethane	U	C3	0.00156	0.00471	1.23	10/26/2021 15:14	WG1763431
1,2,3-Trichloropropane	U		0.00304	0.0236	1.23	10/26/2021 15:14	WG1763431
1,2,4-Trimethylbenzene	0.0340		0.00297	0.00941	1.23	10/26/2021 15:14	WG1763431
1,2,3-Trimethylbenzene	0.0321		0.00297	0.00941	1.23	10/26/2021 15:14	WG1763431
Vinyl chloride	U	C3	0.00219	0.00471	1.23	10/26/2021 15:14	WG1763431
1,3,5-Trimethylbenzene	0.0161		0.00376	0.00941	1.23	10/26/2021 15:14	WG1763431
Xylenes, Total	0.105		0.00165	0.0122	1.23	10/26/2021 15:14	WG1763431
(S) Toluene-d8	*124*			*75.0-131*		*10/26/2021 15:14*	WG1763431
(S) 4-Bromofluorobenzene	*87.5*			*67.0-138*		*10/26/2021 15:14*	WG1763431
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*10/26/2021 15:14*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	24.0		1.72	5.17	1	10/28/2021 14:02	WG1764428
Residual Range Organics (RRO)	55.2		4.30	12.9	1	10/28/2021 14:02	WG1764428
(S) o-Terphenyl	*39.0*			*18.0-148*		*10/28/2021 14:02*	WG1764428

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	0.00634	J	0.00297	0.00775	1	10/28/2021 14:16	WG1764422
Acenaphthene	0.00547	J	0.00270	0.00775	1	10/28/2021 14:16	WG1764422
Acenaphthylene	U		0.00279	0.00775	1	10/28/2021 14:16	WG1764422
Benzo(a)anthracene	0.0131		0.00224	0.00775	1	10/28/2021 14:16	WG1764422
Benzo(a)pyrene	0.00779		0.00231	0.00775	1	10/28/2021 14:16	WG1764422
Benzo(b)fluoranthene	0.0136		0.00198	0.00775	1	10/28/2021 14:16	WG1764422
Benzo(g,h,i)perylene	0.00681	J	0.00229	0.00775	1	10/28/2021 14:16	WG1764422
Benzo(k)fluoranthene	0.00293	J	0.00278	0.00775	1	10/28/2021 14:16	WG1764422
Chrysene	0.0176		0.00300	0.00775	1	10/28/2021 14:16	WG1764422

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dibenz(a,h)anthracene	U		0.00222	0.00775	1	10/28/2021 14:16	WG1764422
Fluoranthene	0.0194		0.00293	0.00775	1	10/28/2021 14:16	WG1764422
Fluorene	0.00830		0.00265	0.00775	1	10/28/2021 14:16	WG1764422
Indeno(1,2,3-cd)pyrene	0.00655	J	0.00234	0.00775	1	10/28/2021 14:16	WG1764422
Naphthalene	0.105	J6	0.00527	0.0258	1	10/28/2021 14:16	WG1764422
Phenanthrene	0.0817		0.00299	0.00775	1	10/28/2021 14:16	WG1764422
Pyrene	0.0203		0.00258	0.00775	1	10/28/2021 14:16	WG1764422
1-Methylnaphthalene	0.138	J6	0.00580	0.0258	1	10/28/2021 14:16	WG1764422
2-Methylnaphthalene	0.195	J6	0.00552	0.0258	1	10/28/2021 14:16	WG1764422
2-Chloronaphthalene	U		0.00602	0.0258	1	10/28/2021 14:16	WG1764422
(S) Nitrobenzene-d5	*83.6*			*14.0-149*		*10/28/2021 14:16*	WG1764422
(S) 2-Fluorobiphenyl	*78.6*			*34.0-125*		*10/28/2021 14:16*	WG1764422
(S) p-Terphenyl-d14	*91.4*			*23.0-120*		*10/28/2021 14:16*	WG1764422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	10/25/2021 08:41	WG1762223

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0214	0.0475	1	10/26/2021 11:02	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	4.01		0.119	1.19	5	10/27/2021 19:53	WG1763566
Barium	127		0.180	2.97	5	10/27/2021 19:53	WG1763566
Cadmium	0.153	J	0.101	1.19	5	10/27/2021 19:53	WG1763566
Chromium	14.9		0.351	5.93	5	10/27/2021 19:53	WG1763566
Lead	9.42		0.117	2.37	5	10/27/2021 19:53	WG1763566
Selenium	0.224	J	0.214	2.97	5	10/27/2021 19:53	WG1763566
Silver	U		0.103	0.593	5	10/27/2021 19:53	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0522	0.0715	1	10/26/2021 15:34	WG1763431
Acrylonitrile	U		0.00516	0.0179	1	10/26/2021 15:34	WG1763431
Benzene	0.000744	J	0.000668	0.00143	1	10/26/2021 15:34	WG1763431
Bromobenzene	U		0.00129	0.0179	1	10/26/2021 15:34	WG1763431
Bromodichloromethane	U		0.00104	0.00357	1	10/26/2021 15:34	WG1763431
Bromoform	U		0.00167	0.0357	1	10/26/2021 15:34	WG1763431
Bromomethane	U		0.00282	0.0179	1	10/26/2021 15:34	WG1763431
n-Butylbenzene	U		0.00751	0.0179	1	10/26/2021 15:34	WG1763431
sec-Butylbenzene	U		0.00412	0.0179	1	10/26/2021 15:34	WG1763431
tert-Butylbenzene	U		0.00279	0.00715	1	10/26/2021 15:34	WG1763431
Carbon tetrachloride	U		0.00128	0.00715	1	10/26/2021 15:34	WG1763431
Chlorobenzene	U		0.000300	0.00357	1	10/26/2021 15:34	WG1763431
Chlorodibromomethane	U		0.000875	0.00357	1	10/26/2021 15:34	WG1763431
Chloroethane	U		0.00243	0.00715	1	10/26/2021 15:34	WG1763431
Chloroform	U		0.00147	0.00357	1	10/26/2021 15:34	WG1763431
Chloromethane	U	C3	0.00622	0.0179	1	10/26/2021 15:34	WG1763431
2-Chlorotoluene	U		0.00124	0.00357	1	10/26/2021 15:34	WG1763431
4-Chlorotoluene	U		0.000643	0.00715	1	10/26/2021 15:34	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00558	0.0357	1	10/26/2021 15:34	WG1763431
1,2-Dibromoethane	U		0.000927	0.00357	1	10/26/2021 15:34	WG1763431
Dibromomethane	U		0.00107	0.00715	1	10/26/2021 15:34	WG1763431
1,2-Dichlorobenzene	U		0.000608	0.00715	1	10/26/2021 15:34	WG1763431
1,3-Dichlorobenzene	U		0.000858	0.00715	1	10/26/2021 15:34	WG1763431
1,4-Dichlorobenzene	U		0.00100	0.00715	1	10/26/2021 15:34	WG1763431
Dichlorodifluoromethane	U		0.00230	0.00357	1	10/26/2021 15:34	WG1763431
1,1-Dichloroethane	U		0.000702	0.00357	1	10/26/2021 15:34	WG1763431
1,2-Dichloroethane	U		0.000928	0.00357	1	10/26/2021 15:34	WG1763431
1,1-Dichloroethene	U	C3	0.000866	0.00357	1	10/26/2021 15:34	WG1763431
cis-1,2-Dichloroethene	U		0.00105	0.00357	1	10/26/2021 15:34	WG1763431
trans-1,2-Dichloroethene	U		0.00149	0.00715	1	10/26/2021 15:34	WG1763431
1,2-Dichloropropane	U		0.00203	0.00715	1	10/26/2021 15:34	WG1763431
1,1-Dichloropropene	U		0.00116	0.00357	1	10/26/2021 15:34	WG1763431
1,3-Dichloropropane	U		0.000716	0.00715	1	10/26/2021 15:34	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00108	0.00357	1	10/26/2021 15:34	WG1763431
trans-1,3-Dichloropropene	U		0.00163	0.00715	1	10/26/2021 15:34	WG1763431
2,2-Dichloropropane	U	C3	0.00197	0.00357	1	10/26/2021 15:34	WG1763431
Di-isopropyl ether	U		0.000586	0.00143	1	10/26/2021 15:34	WG1763431
Ethylbenzene	U		0.00105	0.00357	1	10/26/2021 15:34	WG1763431
Hexachloro-1,3-butadiene	U		0.00858	0.0357	1	10/26/2021 15:34	WG1763431
Isopropylbenzene	U		0.000608	0.00357	1	10/26/2021 15:34	WG1763431
p-Isopropyltoluene	U		0.00365	0.00715	1	10/26/2021 15:34	WG1763431
2-Butanone (MEK)	U		0.0908	0.143	1	10/26/2021 15:34	WG1763431
Methylene Chloride	U		0.00949	0.0357	1	10/26/2021 15:34	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00326	0.0357	1	10/26/2021 15:34	WG1763431
Methyl tert-butyl ether	U		0.000500	0.00143	1	10/26/2021 15:34	WG1763431
Naphthalene	U		0.00698	0.0179	1	10/26/2021 15:34	WG1763431
n-Propylbenzene	U		0.00136	0.00715	1	10/26/2021 15:34	WG1763431
Styrene	U		0.000327	0.0179	1	10/26/2021 15:34	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00136	0.00357	1	10/26/2021 15:34	WG1763431
1,1,2,2-Tetrachloroethane	U		0.000994	0.00357	1	10/26/2021 15:34	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00108	0.00357	1	10/26/2021 15:34	WG1763431
Tetrachloroethene	U		0.00128	0.00357	1	10/26/2021 15:34	WG1763431
Toluene	0.00300	J	0.00186	0.00715	1	10/26/2021 15:34	WG1763431
1,2,3-Trichlorobenzene	U		0.0105	0.0179	1	10/26/2021 15:34	WG1763431
1,2,4-Trichlorobenzene	U		0.00629	0.0179	1	10/26/2021 15:34	WG1763431
1,1,1-Trichloroethane	U		0.00132	0.00357	1	10/26/2021 15:34	WG1763431
1,1,2-Trichloroethane	U		0.000854	0.00357	1	10/26/2021 15:34	WG1763431
Trichloroethene	U		0.000835	0.00143	1	10/26/2021 15:34	WG1763431
Trichlorofluoromethane	U	C3	0.00118	0.00357	1	10/26/2021 15:34	WG1763431
1,2,3-Trichloropropane	U		0.00232	0.0179	1	10/26/2021 15:34	WG1763431
1,2,4-Trimethylbenzene	U		0.00226	0.00715	1	10/26/2021 15:34	WG1763431
1,2,3-Trimethylbenzene	U		0.00226	0.00715	1	10/26/2021 15:34	WG1763431
Vinyl chloride	U	C3	0.00166	0.00357	1	10/26/2021 15:34	WG1763431
1,3,5-Trimethylbenzene	U		0.00286	0.00715	1	10/26/2021 15:34	WG1763431
Xylenes, Total	0.00182	J	0.00126	0.00929	1	10/26/2021 15:34	WG1763431
(S) Toluene-d8	*119*			*75.0-131*		*10/26/2021 15:34*	WG1763431
(S) 4-Bromofluorobenzene	*90.0*			*67.0-138*		*10/26/2021 15:34*	WG1763431
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*10/26/2021 15:34*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.58	4.75	1	10/28/2021 12:26	WG1764428
Residual Range Organics (RRO)	U		3.95	11.9	1	10/28/2021 12:26	WG1764428
(S) o-Terphenyl	*43.6*			*18.0-148*		*10/28/2021 12:26*	WG1764428

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0140	0.0403	1	10/27/2021 22:07	WG1764102
PCB 1221	U		0.0140	0.0403	1	10/27/2021 22:07	WG1764102
PCB 1232	U		0.0140	0.0403	1	10/27/2021 22:07	WG1764102
PCB 1242	U		0.0140	0.0403	1	10/27/2021 22:07	WG1764102
PCB 1248	U		0.00876	0.0202	1	10/27/2021 22:07	WG1764102
PCB 1254	U		0.00876	0.0202	1	10/27/2021 22:07	WG1764102
PCB 1260	U		0.00876	0.0202	1	10/27/2021 22:07	WG1764102
(S) Decachlorobiphenyl	*62.4*			*10.0-135*		*10/27/2021 22:07*	WG1764102
(S) Tetrachloro-m-xylene	*79.8*			*10.0-139*		*10/27/2021 22:07*	WG1764102

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	72.9		1	10/25/2021 08:41	WG1762223

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0247	0.0549	1	10/26/2021 11:05	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.41		0.137	1.37	5	10/27/2021 19:57	WG1763566
Barium	140		0.209	3.43	5	10/27/2021 19:57	WG1763566
Cadmium	U		0.117	1.37	5	10/27/2021 19:57	WG1763566
Chromium	16.8		0.406	6.86	5	10/27/2021 19:57	WG1763566
Lead	6.83		0.136	2.74	5	10/27/2021 19:57	WG1763566
Selenium	U		0.247	3.43	5	10/27/2021 19:57	WG1763566
Silver	U		0.119	0.686	5	10/27/2021 19:57	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0648	0.0887	1	10/26/2021 15:53	WG1763431
Acrylonitrile	U		0.00641	0.0222	1	10/26/2021 15:53	WG1763431
Benzene	U		0.000829	0.00177	1	10/26/2021 15:53	WG1763431
Bromobenzene	U		0.00160	0.0222	1	10/26/2021 15:53	WG1763431
Bromodichloromethane	U		0.00129	0.00444	1	10/26/2021 15:53	WG1763431
Bromoform	U		0.00208	0.0444	1	10/26/2021 15:53	WG1763431
Bromomethane	U		0.00350	0.0222	1	10/26/2021 15:53	WG1763431
n-Butylbenzene	U		0.00932	0.0222	1	10/26/2021 15:53	WG1763431
sec-Butylbenzene	U		0.00511	0.0222	1	10/26/2021 15:53	WG1763431
tert-Butylbenzene	U		0.00346	0.00887	1	10/26/2021 15:53	WG1763431
Carbon tetrachloride	U		0.00159	0.00887	1	10/26/2021 15:53	WG1763431
Chlorobenzene	U		0.000373	0.00444	1	10/26/2021 15:53	WG1763431
Chlorodibromomethane	U		0.00109	0.00444	1	10/26/2021 15:53	WG1763431
Chloroethane	U		0.00302	0.00887	1	10/26/2021 15:53	WG1763431
Chloroform	U		0.00183	0.00444	1	10/26/2021 15:53	WG1763431
Chloromethane	U	C3	0.00772	0.0222	1	10/26/2021 15:53	WG1763431
2-Chlorotoluene	U		0.00154	0.00444	1	10/26/2021 15:53	WG1763431
4-Chlorotoluene	U		0.000799	0.00887	1	10/26/2021 15:53	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00692	0.0444	1	10/26/2021 15:53	WG1763431
1,2-Dibromoethane	U		0.00115	0.00444	1	10/26/2021 15:53	WG1763431
Dibromomethane	U		0.00133	0.00887	1	10/26/2021 15:53	WG1763431
1,2-Dichlorobenzene	U		0.000754	0.00887	1	10/26/2021 15:53	WG1763431
1,3-Dichlorobenzene	U		0.00106	0.00887	1	10/26/2021 15:53	WG1763431
1,4-Dichlorobenzene	U		0.00124	0.00887	1	10/26/2021 15:53	WG1763431
Dichlorodifluoromethane	U		0.00286	0.00444	1	10/26/2021 15:53	WG1763431
1,1-Dichloroethane	U		0.000871	0.00444	1	10/26/2021 15:53	WG1763431
1,2-Dichloroethane	U		0.00115	0.00444	1	10/26/2021 15:53	WG1763431
1,1-Dichloroethene	U	C3	0.00108	0.00444	1	10/26/2021 15:53	WG1763431
cis-1,2-Dichloroethene	U		0.00130	0.00444	1	10/26/2021 15:53	WG1763431
trans-1,2-Dichloroethene	U		0.00185	0.00887	1	10/26/2021 15:53	WG1763431
1,2-Dichloropropane	U		0.00252	0.00887	1	10/26/2021 15:53	WG1763431
1,1-Dichloropropene	U		0.00144	0.00444	1	10/26/2021 15:53	WG1763431
1,3-Dichloropropane	U		0.000889	0.00887	1	10/26/2021 15:53	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00134	0.00444	1	10/26/2021 15:53	WG1763431
trans-1,3-Dichloropropene	U		0.00202	0.00887	1	10/26/2021 15:53	WG1763431
2,2-Dichloropropane	U	C3	0.00245	0.00444	1	10/26/2021 15:53	WG1763431
Di-isopropyl ether	U		0.000728	0.00177	1	10/26/2021 15:53	WG1763431
Ethylbenzene	U		0.00131	0.00444	1	10/26/2021 15:53	WG1763431
Hexachloro-1,3-butadiene	U		0.0106	0.0444	1	10/26/2021 15:53	WG1763431
Isopropylbenzene	U		0.000754	0.00444	1	10/26/2021 15:53	WG1763431
p-Isopropyltoluene	U		0.00453	0.00887	1	10/26/2021 15:53	WG1763431
2-Butanone (MEK)	U		0.113	0.177	1	10/26/2021 15:53	WG1763431
Methylene Chloride	U		0.0118	0.0444	1	10/26/2021 15:53	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00405	0.0444	1	10/26/2021 15:53	WG1763431
Methyl tert-butyl ether	U		0.000621	0.00177	1	10/26/2021 15:53	WG1763431
Naphthalene	U		0.00866	0.0222	1	10/26/2021 15:53	WG1763431
n-Propylbenzene	U		0.00169	0.00887	1	10/26/2021 15:53	WG1763431
Styrene	U		0.000406	0.0222	1	10/26/2021 15:53	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00168	0.00444	1	10/26/2021 15:53	WG1763431
1,1,2,2-Tetrachloroethane	U		0.00123	0.00444	1	10/26/2021 15:53	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00134	0.00444	1	10/26/2021 15:53	WG1763431
Tetrachloroethene	U		0.00159	0.00444	1	10/26/2021 15:53	WG1763431
Toluene	U		0.00231	0.00887	1	10/26/2021 15:53	WG1763431
1,2,3-Trichlorobenzene	U		0.0130	0.0222	1	10/26/2021 15:53	WG1763431
1,2,4-Trichlorobenzene	U		0.00781	0.0222	1	10/26/2021 15:53	WG1763431
1,1,1-Trichloroethane	U		0.00164	0.00444	1	10/26/2021 15:53	WG1763431
1,1,2-Trichloroethane	U		0.00106	0.00444	1	10/26/2021 15:53	WG1763431
Trichloroethene	U		0.00104	0.00177	1	10/26/2021 15:53	WG1763431
Trichlorofluoromethane	U	C3	0.00147	0.00444	1	10/26/2021 15:53	WG1763431
1,2,3-Trichloropropane	U		0.00287	0.0222	1	10/26/2021 15:53	WG1763431
1,2,4-Trimethylbenzene	U		0.00280	0.00887	1	10/26/2021 15:53	WG1763431
1,2,3-Trimethylbenzene	U		0.00280	0.00887	1	10/26/2021 15:53	WG1763431
Vinyl chloride	U	C3	0.00206	0.00444	1	10/26/2021 15:53	WG1763431
1,3,5-Trimethylbenzene	U		0.00355	0.00887	1	10/26/2021 15:53	WG1763431
Xylenes, Total	U		0.00156	0.0115	1	10/26/2021 15:53	WG1763431
(S) Toluene-d8	*122*			*75.0-131*		*10/26/2021 15:53*	WG1763431
(S) 4-Bromofluorobenzene	*86.1*			*67.0-138*		*10/26/2021 15:53*	WG1763431
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*10/26/2021 15:53*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.82	5.49	1	10/28/2021 11:32	WG1764428
Residual Range Organics (RRO)	U		4.57	13.7	1	10/28/2021 11:32	WG1764428
(S) o-Terphenyl	*34.8*			*18.0-148*		*10/28/2021 11:32*	WG1764428

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0162	0.0466	1	10/27/2021 22:16	WG1764102
PCB 1221	U		0.0162	0.0466	1	10/27/2021 22:16	WG1764102
PCB 1232	U		0.0162	0.0466	1	10/27/2021 22:16	WG1764102
PCB 1242	U		0.0162	0.0466	1	10/27/2021 22:16	WG1764102
PCB 1248	U		0.0101	0.0233	1	10/27/2021 22:16	WG1764102
PCB 1254	U		0.0101	0.0233	1	10/27/2021 22:16	WG1764102
PCB 1260	U		0.0101	0.0233	1	10/27/2021 22:16	WG1764102
(S) Decachlorobiphenyl	*55.5*			*10.0-135*		*10/27/2021 22:16*	WG1764102
(S) Tetrachloro-m-xylene	*72.5*			*10.0-139*		*10/27/2021 22:16*	WG1764102

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.00316	0.00823	1	10/28/2021 15:09	WG1764422
Acenaphthene	U		0.00287	0.00823	1	10/28/2021 15:09	WG1764422
Acenaphthylene	U		0.00296	0.00823	1	10/28/2021 15:09	WG1764422
Benzo(a)anthracene	U		0.00237	0.00823	1	10/28/2021 15:09	WG1764422
Benzo(a)pyrene	U		0.00246	0.00823	1	10/28/2021 15:09	WG1764422
Benzo(b)fluoranthene	U		0.00210	0.00823	1	10/28/2021 15:09	WG1764422
Benzo(g,h,i)perylene	U		0.00243	0.00823	1	10/28/2021 15:09	WG1764422
Benzo(k)fluoranthene	U		0.00295	0.00823	1	10/28/2021 15:09	WG1764422
Chrysene	U		0.00318	0.00823	1	10/28/2021 15:09	WG1764422
Dibenz(a,h)anthracene	U		0.00236	0.00823	1	10/28/2021 15:09	WG1764422
Fluoranthene	U		0.00311	0.00823	1	10/28/2021 15:09	WG1764422
Fluorene	U		0.00281	0.00823	1	10/28/2021 15:09	WG1764422
Indeno(1,2,3-cd)pyrene	U		0.00248	0.00823	1	10/28/2021 15:09	WG1764422
Naphthalene	U		0.00560	0.0274	1	10/28/2021 15:09	WG1764422
Phenanthrene	U		0.00317	0.00823	1	10/28/2021 15:09	WG1764422
Pyrene	U		0.00274	0.00823	1	10/28/2021 15:09	WG1764422
1-Methylnaphthalene	U		0.00616	0.0274	1	10/28/2021 15:09	WG1764422
2-Methylnaphthalene	U		0.00586	0.0274	1	10/28/2021 15:09	WG1764422
2-Chloronaphthalene	U		0.00639	0.0274	1	10/28/2021 15:09	WG1764422
(S) Nitrobenzene-d5	*59.2*			*14.0-149*		*10/28/2021 15:09*	WG1764422
(S) 2-Fluorobiphenyl	*64.9*			*34.0-125*		*10/28/2021 15:09*	WG1764422
(S) p-Terphenyl-d14	*69.3*			*23.0-120*		*10/28/2021 15:09*	WG1764422

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	78.0		1	10/25/2021 08:41	WG1762223

Mercury by Method 7471B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.0231	0.0513	1	10/26/2021 11:07	WG1762773

Metals (ICPMS) by Method 6020B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.30		0.128	1.28	5	10/27/2021 18:24	WG1763566
Barium	100		0.195	3.21	5	10/27/2021 18:24	WG1763566
Cadmium	U		0.110	1.28	5	10/27/2021 18:24	WG1763566
Chromium	21.9		0.380	6.41	5	10/27/2021 18:24	WG1763566
Lead	5.86		0.127	2.57	5	10/27/2021 18:24	WG1763566
Selenium	0.271	J	0.231	3.21	5	10/27/2021 18:24	WG1763566
Silver	U		0.111	0.641	5	10/27/2021 18:24	WG1763566

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0586	0.0802	1	10/26/2021 16:12	WG1763431
Acrylonitrile	U		0.00579	0.0201	1	10/26/2021 16:12	WG1763431
Benzene	U		0.000749	0.00160	1	10/26/2021 16:12	WG1763431
Bromobenzene	U		0.00144	0.0201	1	10/26/2021 16:12	WG1763431
Bromodichloromethane	U		0.00116	0.00401	1	10/26/2021 16:12	WG1763431
Bromoform	U		0.00188	0.0401	1	10/26/2021 16:12	WG1763431
Bromomethane	U		0.00316	0.0201	1	10/26/2021 16:12	WG1763431
n-Butylbenzene	U		0.00842	0.0201	1	10/26/2021 16:12	WG1763431
sec-Butylbenzene	U		0.00462	0.0201	1	10/26/2021 16:12	WG1763431
tert-Butylbenzene	U		0.00313	0.00802	1	10/26/2021 16:12	WG1763431
Carbon tetrachloride	U		0.00144	0.00802	1	10/26/2021 16:12	WG1763431
Chlorobenzene	U		0.000337	0.00401	1	10/26/2021 16:12	WG1763431
Chlorodibromomethane	U		0.000982	0.00401	1	10/26/2021 16:12	WG1763431
Chloroethane	U		0.00273	0.00802	1	10/26/2021 16:12	WG1763431
Chloroform	U		0.00165	0.00401	1	10/26/2021 16:12	WG1763431
Chloromethane	U	C3	0.00698	0.0201	1	10/26/2021 16:12	WG1763431
2-Chlorotoluene	U		0.00139	0.00401	1	10/26/2021 16:12	WG1763431
4-Chlorotoluene	U		0.000722	0.00802	1	10/26/2021 16:12	WG1763431
1,2-Dibromo-3-Chloropropane	U		0.00626	0.0401	1	10/26/2021 16:12	WG1763431
1,2-Dibromoethane	U		0.00104	0.00401	1	10/26/2021 16:12	WG1763431
Dibromomethane	U		0.00120	0.00802	1	10/26/2021 16:12	WG1763431
1,2-Dichlorobenzene	U		0.000682	0.00802	1	10/26/2021 16:12	WG1763431
1,3-Dichlorobenzene	U		0.000963	0.00802	1	10/26/2021 16:12	WG1763431
1,4-Dichlorobenzene	U		0.00112	0.00802	1	10/26/2021 16:12	WG1763431
Dichlorodifluoromethane	U		0.00258	0.00401	1	10/26/2021 16:12	WG1763431
1,1-Dichloroethane	U		0.000788	0.00401	1	10/26/2021 16:12	WG1763431
1,2-Dichloroethane	U		0.00104	0.00401	1	10/26/2021 16:12	WG1763431
1,1-Dichloroethene	U	C3	0.000972	0.00401	1	10/26/2021 16:12	WG1763431
cis-1,2-Dichloroethene	U		0.00118	0.00401	1	10/26/2021 16:12	WG1763431
trans-1,2-Dichloroethene	U		0.00167	0.00802	1	10/26/2021 16:12	WG1763431
1,2-Dichloropropane	U		0.00228	0.00802	1	10/26/2021 16:12	WG1763431
1,1-Dichloropropene	U		0.00130	0.00401	1	10/26/2021 16:12	WG1763431
1,3-Dichloropropane	U		0.000804	0.00802	1	10/26/2021 16:12	WG1763431

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
cis-1,3-Dichloropropene	U		0.00121	0.00401	1	10/26/2021 16:12	WG1763431
trans-1,3-Dichloropropene	U		0.00183	0.00802	1	10/26/2021 16:12	WG1763431
2,2-Dichloropropane	U	C3	0.00221	0.00401	1	10/26/2021 16:12	WG1763431
Di-isopropyl ether	U		0.000658	0.00160	1	10/26/2021 16:12	WG1763431
Ethylbenzene	U		0.00118	0.00401	1	10/26/2021 16:12	WG1763431
Hexachloro-1,3-butadiene	U		0.00963	0.0401	1	10/26/2021 16:12	WG1763431
Isopropylbenzene	U		0.000682	0.00401	1	10/26/2021 16:12	WG1763431
p-Isopropyltoluene	U		0.00409	0.00802	1	10/26/2021 16:12	WG1763431
2-Butanone (MEK)	U		0.102	0.160	1	10/26/2021 16:12	WG1763431
Methylene Chloride	U		0.0107	0.0401	1	10/26/2021 16:12	WG1763431
4-Methyl-2-pentanone (MIBK)	U		0.00366	0.0401	1	10/26/2021 16:12	WG1763431
Methyl tert-butyl ether	U		0.000562	0.00160	1	10/26/2021 16:12	WG1763431
Naphthalene	U		0.00783	0.0201	1	10/26/2021 16:12	WG1763431
n-Propylbenzene	U		0.00152	0.00802	1	10/26/2021 16:12	WG1763431
Styrene	U		0.000367	0.0201	1	10/26/2021 16:12	WG1763431
1,1,1,2-Tetrachloroethane	U		0.00152	0.00401	1	10/26/2021 16:12	WG1763431
1,1,2,2-Tetrachloroethane	U		0.00112	0.00401	1	10/26/2021 16:12	WG1763431
1,1,2-Trichlorotrifluoroethane	U	C3	0.00121	0.00401	1	10/26/2021 16:12	WG1763431
Tetrachloroethene	U		0.00144	0.00401	1	10/26/2021 16:12	WG1763431
Toluene	U		0.00209	0.00802	1	10/26/2021 16:12	WG1763431
1,2,3-Trichlorobenzene	U		0.0118	0.0201	1	10/26/2021 16:12	WG1763431
1,2,4-Trichlorobenzene	U		0.00706	0.0201	1	10/26/2021 16:12	WG1763431
1,1,1-Trichloroethane	U		0.00148	0.00401	1	10/26/2021 16:12	WG1763431
1,1,2-Trichloroethane	U		0.000958	0.00401	1	10/26/2021 16:12	WG1763431
Trichloroethene	U		0.000937	0.00160	1	10/26/2021 16:12	WG1763431
Trichlorofluoromethane	U	C3	0.00133	0.00401	1	10/26/2021 16:12	WG1763431
1,2,3-Trichloropropane	U		0.00260	0.0201	1	10/26/2021 16:12	WG1763431
1,2,4-Trimethylbenzene	U		0.00254	0.00802	1	10/26/2021 16:12	WG1763431
1,2,3-Trimethylbenzene	U		0.00254	0.00802	1	10/26/2021 16:12	WG1763431
Vinyl chloride	U	C3	0.00186	0.00401	1	10/26/2021 16:12	WG1763431
1,3,5-Trimethylbenzene	U		0.00321	0.00802	1	10/26/2021 16:12	WG1763431
Xylenes, Total	U		0.00141	0.0104	1	10/26/2021 16:12	WG1763431
(S) Toluene-d8	*120*			*75.0-131*		*10/26/2021 16:12*	WG1763431
(S) 4-Bromofluorobenzene	*91.4*			*67.0-138*		*10/26/2021 16:12*	WG1763431
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*10/26/2021 16:12*	WG1763431

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		1.71	5.13	1	10/28/2021 11:46	WG1764428
Residual Range Organics (RRO)	U		4.27	12.8	1	10/28/2021 11:46	WG1764428
(S) o-Terphenyl	*34.7*			*18.0-148*		*10/28/2021 11:46*	WG1764428

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
PCB 1016	U		0.0151	0.0436	1	10/27/2021 22:25	WG1764102
PCB 1221	U		0.0151	0.0436	1	10/27/2021 22:25	WG1764102
PCB 1232	U		0.0151	0.0436	1	10/27/2021 22:25	WG1764102
PCB 1242	U		0.0151	0.0436	1	10/27/2021 22:25	WG1764102
PCB 1248	U		0.00947	0.0218	1	10/27/2021 22:25	WG1764102
PCB 1254	U		0.00947	0.0218	1	10/27/2021 22:25	WG1764102
PCB 1260	U		0.00947	0.0218	1	10/27/2021 22:25	WG1764102
(S) Decachlorobiphenyl	*53.4*			*10.0-135*		*10/27/2021 22:25*	WG1764102
(S) Tetrachloro-m-xylene	*75.5*			*10.0-139*		*10/27/2021 22:25*	WG1764102

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.51	C5	0.548	1.00	1	10/23/2021 00:08	WG1761975
Acrylonitrile	U		0.0760	0.500	1	10/23/2021 00:08	WG1761975
Benzene	U		0.0160	0.0400	1	10/23/2021 00:08	WG1761975
Bromobenzene	U		0.0420	0.500	1	10/23/2021 00:08	WG1761975
Bromochloromethane	U		0.0452	0.200	1	10/23/2021 00:08	WG1761975
Bromodichloromethane	U	J4	0.0315	0.100	1	10/23/2021 00:08	WG1761975
Bromoform	U		0.239	1.00	1	10/23/2021 00:08	WG1761975
Bromomethane	U		0.148	0.500	1	10/23/2021 00:08	WG1761975
n-Butylbenzene	U		0.153	0.500	1	10/23/2021 00:08	WG1761975
sec-Butylbenzene	U		0.101	0.500	1	10/23/2021 00:08	WG1761975
tert-Butylbenzene	U	C3	0.0620	0.200	1	10/23/2021 00:08	WG1761975
Carbon disulfide	U		0.162	0.500	1	10/23/2021 00:08	WG1761975
Carbon tetrachloride	U		0.0432	0.200	1	10/23/2021 00:08	WG1761975
Chlorobenzene	U		0.0229	0.100	1	10/23/2021 00:08	WG1761975
Chlorodibromomethane	U		0.0180	0.100	1	10/23/2021 00:08	WG1761975
Chloroethane	U		0.0432	0.200	1	10/23/2021 00:08	WG1761975
Chloroform	U		0.0166	0.100	1	10/23/2021 00:08	WG1761975
Chloromethane	U		0.0556	0.500	1	10/23/2021 00:08	WG1761975
2-Chlorotoluene	U		0.0368	0.100	1	10/23/2021 00:08	WG1761975
4-Chlorotoluene	U		0.0452	0.200	1	10/23/2021 00:08	WG1761975
1,2-Dibromo-3-Chloropropane	U	C3	0.204	1.00	1	10/23/2021 00:08	WG1761975
1,2-Dibromoethane	U		0.0210	0.100	1	10/23/2021 00:08	WG1761975
Dibromomethane	U	J4	0.0400	0.200	1	10/23/2021 00:08	WG1761975
1,2-Dichlorobenzene	U		0.0580	0.200	1	10/23/2021 00:08	WG1761975
1,3-Dichlorobenzene	U		0.0680	0.200	1	10/23/2021 00:08	WG1761975
1,4-Dichlorobenzene	U		0.0788	0.200	1	10/23/2021 00:08	WG1761975
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	10/23/2021 00:08	WG1761975
Dichlorodifluoromethane	U		0.0327	0.100	1	10/23/2021 00:08	WG1761975
1,1-Dichloroethane	U		0.0230	0.100	1	10/23/2021 00:08	WG1761975
1,2-Dichloroethane	U		0.0190	0.100	1	10/23/2021 00:08	WG1761975
1,1-Dichloroethene	U		0.0200	0.100	1	10/23/2021 00:08	WG1761975
cis-1,2-Dichloroethene	U		0.0276	0.100	1	10/23/2021 00:08	WG1761975
trans-1,2-Dichloroethene	U		0.0572	0.200	1	10/23/2021 00:08	WG1761975
1,2-Dichloropropane	U		0.0508	0.200	1	10/23/2021 00:08	WG1761975
1,1-Dichloropropene	U		0.0280	0.100	1	10/23/2021 00:08	WG1761975
1,3-Dichloropropane	U		0.0700	0.200	1	10/23/2021 00:08	WG1761975
cis-1,3-Dichloropropene	U		0.0271	0.100	1	10/23/2021 00:08	WG1761975
trans-1,3-Dichloropropene	U		0.0612	0.200	1	10/23/2021 00:08	WG1761975
2,2-Dichloropropane	U		0.0317	0.100	1	10/23/2021 00:08	WG1761975
Di-isopropyl ether	U		0.0140	0.0400	1	10/23/2021 00:08	WG1761975
Ethylbenzene	U		0.0212	0.100	1	10/23/2021 00:08	WG1761975
Hexachloro-1,3-butadiene	U		0.508	1.00	1	10/23/2021 00:08	WG1761975
2-Hexanone	U		0.400	1.00	1	10/23/2021 00:08	WG1761975
n-Hexane	U		0.0424	0.200	1	10/23/2021 00:08	WG1761975
Iodomethane	U		0.242	0.500	1	10/23/2021 00:08	WG1761975
Isopropylbenzene	U		0.0345	0.100	1	10/23/2021 00:08	WG1761975
p-Isopropyltoluene	U		0.0932	0.200	1	10/23/2021 00:08	WG1761975
2-Butanone (MEK)	U		0.500	1.00	1	10/23/2021 00:08	WG1761975
Methylene Chloride	U		0.265	1.00	1	10/23/2021 00:08	WG1761975
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	10/23/2021 00:08	WG1761975
Methyl tert-butyl ether	U		0.0118	0.0400	1	10/23/2021 00:08	WG1761975
Naphthalene	U	C3	0.124	0.500	1	10/23/2021 00:08	WG1761975
n-Propylbenzene	U		0.0472	0.200	1	10/23/2021 00:08	WG1761975
Styrene	U		0.109	0.500	1	10/23/2021 00:08	WG1761975
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	10/23/2021 00:08	WG1761975
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	10/23/2021 00:08	WG1761975

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	10/23/2021 00:08	WG1761975
Tetrachloroethene	U		0.0280	0.100	1	10/23/2021 00:08	WG1761975
Toluene	U		0.0500	0.200	1	10/23/2021 00:08	WG1761975
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	10/23/2021 00:08	WG1761975
1,2,4-Trichlorobenzene	U		0.193	0.500	1	10/23/2021 00:08	WG1761975
1,1,1-Trichloroethane	U		0.0110	0.100	1	10/23/2021 00:08	WG1761975
1,1,2-Trichloroethane	U		0.0353	0.100	1	10/23/2021 00:08	WG1761975
Trichloroethene	U		0.0160	0.0400	1	10/23/2021 00:08	WG1761975
Trichlorofluoromethane	U		0.0200	0.100	1	10/23/2021 00:08	WG1761975
1,2,3-Trichloropropane	U		0.204	0.500	1	10/23/2021 00:08	WG1761975
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	10/23/2021 00:08	WG1761975
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	10/23/2021 00:08	WG1761975
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	10/23/2021 00:08	WG1761975
Vinyl acetate	U		0.141	0.500	1	10/23/2021 00:08	WG1761975
Vinyl chloride	U		0.0273	0.100	1	10/23/2021 00:08	WG1761975
Xylenes, Total	U		0.191	0.260	1	10/23/2021 00:08	WG1761975
(S) Toluene-d8	*94.9*			*75.0-131*		*10/23/2021 00:08*	WG1761975
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*10/23/2021 00:08*	WG1761975
(S) 1,2-Dichloroethane-d4	*97.6*			*70.0-130*		*10/23/2021 00:08*	WG1761975

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/27/2021 07:32	WG1762928

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	1.15	J	0.180	2.00	1	10/27/2021 20:57	WG1763394
Barium	169		0.381	2.00	1	10/27/2021 20:57	WG1763394
Cadmium	0.222	J	0.150	1.00	1	10/27/2021 20:57	WG1763394
Chromium	3.32	B	1.24	2.00	1	10/27/2021 20:57	WG1763394
Lead	11.4		0.849	2.00	1	10/27/2021 20:57	WG1763394
Selenium	U		0.300	2.00	1	10/27/2021 22:44	WG1763394
Silver	0.115	J	0.0700	2.00	1	10/27/2021 20:57	WG1763394

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	3.07	C5	0.548	1.00	1	10/23/2021 04:39	WG1761975
Acrylonitrile	U		0.0760	0.500	1	10/23/2021 04:39	WG1761975
Benzene	U		0.0160	0.0400	1	10/23/2021 04:39	WG1761975
Bromobenzene	U		0.0420	0.500	1	10/23/2021 04:39	WG1761975
Bromochloromethane	U		0.0452	0.200	1	10/23/2021 04:39	WG1761975
Bromodichloromethane	U	J4	0.0315	0.100	1	10/23/2021 04:39	WG1761975
Bromoform	U		0.239	1.00	1	10/23/2021 04:39	WG1761975
Bromomethane	U		0.148	0.500	1	10/23/2021 04:39	WG1761975
n-Butylbenzene	U		0.153	0.500	1	10/23/2021 04:39	WG1761975
sec-Butylbenzene	U		0.101	0.500	1	10/23/2021 04:39	WG1761975
tert-Butylbenzene	U	C3	0.0620	0.200	1	10/23/2021 04:39	WG1761975
Carbon disulfide	U		0.162	0.500	1	10/23/2021 04:39	WG1761975
Carbon tetrachloride	U		0.0432	0.200	1	10/23/2021 04:39	WG1761975
Chlorobenzene	U		0.0229	0.100	1	10/23/2021 04:39	WG1761975
Chlorodibromomethane	U		0.0180	0.100	1	10/23/2021 04:39	WG1761975
Chloroethane	U		0.0432	0.200	1	10/23/2021 04:39	WG1761975
Chloroform	U		0.0166	0.100	1	10/23/2021 04:39	WG1761975
Chloromethane	U		0.0556	0.500	1	10/23/2021 04:39	WG1761975
2-Chlorotoluene	U		0.0368	0.100	1	10/23/2021 04:39	WG1761975
4-Chlorotoluene	U		0.0452	0.200	1	10/23/2021 04:39	WG1761975
1,2-Dibromo-3-Chloropropane	U	C3	0.204	1.00	1	10/23/2021 04:39	WG1761975
1,2-Dibromoethane	U		0.0210	0.100	1	10/23/2021 04:39	WG1761975
Dibromomethane	U	J4	0.0400	0.200	1	10/23/2021 04:39	WG1761975
1,2-Dichlorobenzene	U		0.0580	0.200	1	10/23/2021 04:39	WG1761975
1,3-Dichlorobenzene	U		0.0680	0.200	1	10/23/2021 04:39	WG1761975
1,4-Dichlorobenzene	U		0.0788	0.200	1	10/23/2021 04:39	WG1761975
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	10/23/2021 04:39	WG1761975
Dichlorodifluoromethane	U		0.0327	0.100	1	10/23/2021 04:39	WG1761975
1,1-Dichloroethane	U		0.0230	0.100	1	10/23/2021 04:39	WG1761975
1,2-Dichloroethane	U		0.0190	0.100	1	10/23/2021 04:39	WG1761975
1,1-Dichloroethene	U		0.0200	0.100	1	10/23/2021 04:39	WG1761975
cis-1,2-Dichloroethene	U		0.0276	0.100	1	10/23/2021 04:39	WG1761975
trans-1,2-Dichloroethene	U		0.0572	0.200	1	10/23/2021 04:39	WG1761975
1,2-Dichloropropane	U		0.0508	0.200	1	10/23/2021 04:39	WG1761975
1,1-Dichloropropene	U		0.0280	0.100	1	10/23/2021 04:39	WG1761975
1,3-Dichloropropane	U		0.0700	0.200	1	10/23/2021 04:39	WG1761975
cis-1,3-Dichloropropene	U		0.0271	0.100	1	10/23/2021 04:39	WG1761975
trans-1,3-Dichloropropene	U		0.0612	0.200	1	10/23/2021 04:39	WG1761975
2,2-Dichloropropane	U		0.0317	0.100	1	10/23/2021 04:39	WG1761975

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Di-isopropyl ether	U		0.0140	0.0400	1	10/23/2021 04:39	WG1761975
Ethylbenzene	U		0.0212	0.100	1	10/23/2021 04:39	WG1761975
Hexachloro-1,3-butadiene	U		0.508	1.00	1	10/23/2021 04:39	WG1761975
2-Hexanone	U		0.400	1.00	1	10/23/2021 04:39	WG1761975
n-Hexane	U		0.0424	0.200	1	10/23/2021 04:39	WG1761975
Iodomethane	U		0.242	0.500	1	10/23/2021 04:39	WG1761975
Isopropylbenzene	U		0.0345	0.100	1	10/23/2021 04:39	WG1761975
p-Isopropyltoluene	U		0.0932	0.200	1	10/23/2021 04:39	WG1761975
2-Butanone (MEK)	U		0.500	1.00	1	10/23/2021 04:39	WG1761975
Methylene Chloride	U		0.265	1.00	1	10/23/2021 04:39	WG1761975
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	10/23/2021 04:39	WG1761975
Methyl tert-butyl ether	U		0.0118	0.0400	1	10/23/2021 04:39	WG1761975
Naphthalene	U	C3	0.124	0.500	1	10/23/2021 04:39	WG1761975
n-Propylbenzene	U		0.0472	0.200	1	10/23/2021 04:39	WG1761975
Styrene	U		0.109	0.500	1	10/23/2021 04:39	WG1761975
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	10/23/2021 04:39	WG1761975
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	10/23/2021 04:39	WG1761975
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	10/23/2021 04:39	WG1761975
Tetrachloroethene	U		0.0280	0.100	1	10/23/2021 04:39	WG1761975
Toluene	0.0550	J	0.0500	0.200	1	10/23/2021 04:39	WG1761975
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	10/23/2021 04:39	WG1761975
1,2,4-Trichlorobenzene	U		0.193	0.500	1	10/23/2021 04:39	WG1761975
1,1,1-Trichloroethane	U		0.0110	0.100	1	10/23/2021 04:39	WG1761975
1,1,2-Trichloroethane	U		0.0353	0.100	1	10/23/2021 04:39	WG1761975
Trichloroethene	U		0.0160	0.0400	1	10/23/2021 04:39	WG1761975
Trichlorofluoromethane	U		0.0200	0.100	1	10/23/2021 04:39	WG1761975
1,2,3-Trichloropropane	U		0.204	0.500	1	10/23/2021 04:39	WG1761975
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	10/23/2021 04:39	WG1761975
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	10/23/2021 04:39	WG1761975
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	10/23/2021 04:39	WG1761975
Vinyl acetate	U		0.141	0.500	1	10/23/2021 04:39	WG1761975
Vinyl chloride	U		0.0273	0.100	1	10/23/2021 04:39	WG1761975
Xylenes, Total	U		0.191	0.260	1	10/23/2021 04:39	WG1761975
(S) Toluene-d8	*92.2*			*75.0-131*		*10/23/2021 04:39*	WG1761975
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*10/23/2021 04:39*	WG1761975
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*10/23/2021 04:39*	WG1761975

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.7	200	1	10/29/2021 09:04	WG1765164
Residual Range Organics (RRO)	U		83.3	250	1	10/29/2021 09:04	WG1765164
(S) o-Terphenyl	*50.5*	J2		*52.0-156*		*10/29/2021 09:04*	WG1765164

Sample Narrative:

L1421071-12 WG1765164: Sample produced emulsion during Extraction process, low surr/spike recoveries due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	10/26/2021 17:14	WG1762605
Acenaphthene	U		0.0190	0.0500	1	10/26/2021 17:14	WG1762605
Acenaphthylene	U		0.0171	0.0500	1	10/26/2021 17:14	WG1762605
Benzo(a)anthracene	U		0.0203	0.0500	1	10/26/2021 17:14	WG1762605
Benzo(a)pyrene	U		0.0184	0.0500	1	10/26/2021 17:14	WG1762605

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzo(b)fluoranthene	U		0.0168	0.0500	1	10/26/2021 17:14	WG1762605
Benzo(g,h,i)perylene	U	J3	0.0184	0.0500	1	10/26/2021 17:14	WG1762605
Benzo(k)fluoranthene	U	J3	0.0202	0.0500	1	10/26/2021 17:14	WG1762605
Chrysene	U		0.0179	0.0500	1	10/26/2021 17:14	WG1762605
Dibenz(a,h)anthracene	U	J3	0.0160	0.0500	1	10/26/2021 17:14	WG1762605
Fluoranthene	U		0.0270	0.100	1	10/26/2021 17:14	WG1762605
Fluorene	U		0.0169	0.0500	1	10/26/2021 17:14	WG1762605
Indeno(1,2,3-cd)pyrene	U	J3	0.0158	0.0500	1	10/26/2021 17:14	WG1762605
Naphthalene	U		0.0917	0.250	1	10/26/2021 17:14	WG1762605
Phenanthrene	U		0.0180	0.0500	1	10/26/2021 17:14	WG1762605
Pyrene	U		0.0169	0.0500	1	10/26/2021 17:14	WG1762605
1-Methylnaphthalene	U		0.0687	0.250	1	10/26/2021 17:14	WG1762605
2-Methylnaphthalene	U		0.0674	0.250	1	10/26/2021 17:14	WG1762605
2-Chloronaphthalene	U		0.0682	0.250	1	10/26/2021 17:14	WG1762605
(S) Nitrobenzene-d5	*67.0*			*31.0-160*		*10/26/2021 17:14*	WG1762605
(S) 2-Fluorobiphenyl	*92.0*			*48.0-148*		*10/26/2021 17:14*	WG1762605
(S) p-Terphenyl-d14	*105*			*37.0-146*		*10/26/2021 17:14*	WG1762605

Mercury by Method 7470A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Mercury	U		0.100	0.200	1	10/27/2021 07:34	WG1762928

Metals (ICPMS) by Method 6020B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Arsenic	0.756	J	0.180	2.00	1	10/27/2021 21:00	WG1763394
Barium	171		0.381	2.00	1	10/27/2021 21:00	WG1763394
Cadmium	0.359	J	0.150	1.00	1	10/27/2021 21:00	WG1763394
Chromium	4.32	B	1.24	2.00	1	10/27/2021 21:00	WG1763394
Lead	7.66		0.849	2.00	1	10/27/2021 21:00	WG1763394
Selenium	U		0.300	2.00	1	10/27/2021 22:48	WG1763394
Silver	U		0.0700	2.00	1	10/27/2021 21:00	WG1763394

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Acetone	2.65	C5	0.548	1.00	1	10/23/2021 04:59	WG1761975
Acrylonitrile	U		0.0760	0.500	1	10/23/2021 04:59	WG1761975
Benzene	0.0980		0.0160	0.0400	1	10/23/2021 04:59	WG1761975
Bromobenzene	U		0.0420	0.500	1	10/23/2021 04:59	WG1761975
Bromochloromethane	U		0.0452	0.200	1	10/23/2021 04:59	WG1761975
Bromodichloromethane	U	J4	0.0315	0.100	1	10/23/2021 04:59	WG1761975
Bromoform	U		0.239	1.00	1	10/23/2021 04:59	WG1761975
Bromomethane	U		0.148	0.500	1	10/23/2021 04:59	WG1761975
n-Butylbenzene	U		0.153	0.500	1	10/23/2021 04:59	WG1761975
sec-Butylbenzene	U		0.101	0.500	1	10/23/2021 04:59	WG1761975
tert-Butylbenzene	U	C3	0.0620	0.200	1	10/23/2021 04:59	WG1761975
Carbon disulfide	U		0.162	0.500	1	10/23/2021 04:59	WG1761975
Carbon tetrachloride	U		0.0432	0.200	1	10/23/2021 04:59	WG1761975
Chlorobenzene	U		0.0229	0.100	1	10/23/2021 04:59	WG1761975
Chlorodibromomethane	U		0.0180	0.100	1	10/23/2021 04:59	WG1761975
Chloroethane	U		0.0432	0.200	1	10/23/2021 04:59	WG1761975
Chloroform	U		0.0166	0.100	1	10/23/2021 04:59	WG1761975
Chloromethane	U		0.0556	0.500	1	10/23/2021 04:59	WG1761975
2-Chlorotoluene	U		0.0368	0.100	1	10/23/2021 04:59	WG1761975
4-Chlorotoluene	U		0.0452	0.200	1	10/23/2021 04:59	WG1761975
1,2-Dibromo-3-Chloropropane	U	C3	0.204	1.00	1	10/23/2021 04:59	WG1761975
1,2-Dibromoethane	U		0.0210	0.100	1	10/23/2021 04:59	WG1761975
Dibromomethane	U	J4	0.0400	0.200	1	10/23/2021 04:59	WG1761975
1,2-Dichlorobenzene	U		0.0580	0.200	1	10/23/2021 04:59	WG1761975
1,3-Dichlorobenzene	U		0.0680	0.200	1	10/23/2021 04:59	WG1761975
1,4-Dichlorobenzene	U		0.0788	0.200	1	10/23/2021 04:59	WG1761975
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	10/23/2021 04:59	WG1761975
Dichlorodifluoromethane	U		0.0327	0.100	1	10/23/2021 04:59	WG1761975
1,1-Dichloroethane	U		0.0230	0.100	1	10/23/2021 04:59	WG1761975
1,2-Dichloroethane	U		0.0190	0.100	1	10/23/2021 04:59	WG1761975
1,1-Dichloroethene	U		0.0200	0.100	1	10/23/2021 04:59	WG1761975
cis-1,2-Dichloroethene	U		0.0276	0.100	1	10/23/2021 04:59	WG1761975
trans-1,2-Dichloroethene	U		0.0572	0.200	1	10/23/2021 04:59	WG1761975
1,2-Dichloropropane	U		0.0508	0.200	1	10/23/2021 04:59	WG1761975
1,1-Dichloropropene	U		0.0280	0.100	1	10/23/2021 04:59	WG1761975
1,3-Dichloropropane	U		0.0700	0.200	1	10/23/2021 04:59	WG1761975
cis-1,3-Dichloropropene	U		0.0271	0.100	1	10/23/2021 04:59	WG1761975
trans-1,3-Dichloropropene	U		0.0612	0.200	1	10/23/2021 04:59	WG1761975
2,2-Dichloropropane	U		0.0317	0.100	1	10/23/2021 04:59	WG1761975

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Di-isopropyl ether	U		0.0140	0.0400	1	10/23/2021 04:59	WG1761975
Ethylbenzene	U		0.0212	0.100	1	10/23/2021 04:59	WG1761975
Hexachloro-1,3-butadiene	U		0.508	1.00	1	10/23/2021 04:59	WG1761975
2-Hexanone	U		0.400	1.00	1	10/23/2021 04:59	WG1761975
n-Hexane	U		0.0424	0.200	1	10/23/2021 04:59	WG1761975
Iodomethane	U		0.242	0.500	1	10/23/2021 04:59	WG1761975
Isopropylbenzene	U		0.0345	0.100	1	10/23/2021 04:59	WG1761975
p-Isopropyltoluene	U		0.0932	0.200	1	10/23/2021 04:59	WG1761975
2-Butanone (MEK)	U		0.500	1.00	1	10/23/2021 04:59	WG1761975
Methylene Chloride	U		0.265	1.00	1	10/23/2021 04:59	WG1761975
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	10/23/2021 04:59	WG1761975
Methyl tert-butyl ether	U		0.0118	0.0400	1	10/23/2021 04:59	WG1761975
Naphthalene	U	C3	0.124	0.500	1	10/23/2021 04:59	WG1761975
n-Propylbenzene	U		0.0472	0.200	1	10/23/2021 04:59	WG1761975
Styrene	U		0.109	0.500	1	10/23/2021 04:59	WG1761975
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	10/23/2021 04:59	WG1761975
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	10/23/2021 04:59	WG1761975
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	10/23/2021 04:59	WG1761975
Tetrachloroethene	U		0.0280	0.100	1	10/23/2021 04:59	WG1761975
Toluene	0.105	J	0.0500	0.200	1	10/23/2021 04:59	WG1761975
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	10/23/2021 04:59	WG1761975
1,2,4-Trichlorobenzene	U		0.193	0.500	1	10/23/2021 04:59	WG1761975
1,1,1-Trichloroethane	U		0.0110	0.100	1	10/23/2021 04:59	WG1761975
1,1,2-Trichloroethane	U		0.0353	0.100	1	10/23/2021 04:59	WG1761975
Trichloroethene	U		0.0160	0.0400	1	10/23/2021 04:59	WG1761975
Trichlorofluoromethane	U		0.0200	0.100	1	10/23/2021 04:59	WG1761975
1,2,3-Trichloropropane	U		0.204	0.500	1	10/23/2021 04:59	WG1761975
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	10/23/2021 04:59	WG1761975
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	10/23/2021 04:59	WG1761975
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	10/23/2021 04:59	WG1761975
Vinyl acetate	U		0.141	0.500	1	10/23/2021 04:59	WG1761975
Vinyl chloride	U		0.0273	0.100	1	10/23/2021 04:59	WG1761975
Xylenes, Total	U		0.191	0.260	1	10/23/2021 04:59	WG1761975
(S) Toluene-d8	*93.9*			*75.0-131*		*10/23/2021 04:59*	WG1761975
(S) 4-Bromofluorobenzene	*92.8*			*67.0-138*		*10/23/2021 04:59*	WG1761975
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*		*10/23/2021 04:59*	WG1761975

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.7	200	1	10/29/2021 09:25	WG1765164
Residual Range Organics (RRO)	U		83.3	250	1	10/29/2021 09:25	WG1765164
(S) o-Terphenyl	*53.0*			*52.0-156*		*10/29/2021 09:25*	WG1765164

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	10/26/2021 17:32	WG1762605
Acenaphthene	U		0.0190	0.0500	1	10/26/2021 17:32	WG1762605
Acenaphthylene	U		0.0171	0.0500	1	10/26/2021 17:32	WG1762605
Benzo(a)anthracene	U		0.0203	0.0500	1	10/26/2021 17:32	WG1762605
Benzo(a)pyrene	U		0.0184	0.0500	1	10/26/2021 17:32	WG1762605
Benzo(b)fluoranthene	U		0.0168	0.0500	1	10/26/2021 17:32	WG1762605
Benzo(g,h,i)perylene	U	J3	0.0184	0.0500	1	10/26/2021 17:32	WG1762605
Benzo(k)fluoranthene	U	J3	0.0202	0.0500	1	10/26/2021 17:32	WG1762605

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chrysene	U		0.0179	0.0500	1	10/26/2021 17:32	WG1762605
Dibenz(a,h)anthracene	U	J3	0.0160	0.0500	1	10/26/2021 17:32	WG1762605
Fluoranthene	U		0.0270	0.100	1	10/26/2021 17:32	WG1762605
Fluorene	U		0.0169	0.0500	1	10/26/2021 17:32	WG1762605
Indeno(1,2,3-cd)pyrene	U	J3	0.0158	0.0500	1	10/26/2021 17:32	WG1762605
Naphthalene	U		0.0917	0.250	1	10/26/2021 17:32	WG1762605
Phenanthrene	U		0.0180	0.0500	1	10/26/2021 17:32	WG1762605
Pyrene	U		0.0169	0.0500	1	10/26/2021 17:32	WG1762605
1-Methylnaphthalene	U		0.0687	0.250	1	10/26/2021 17:32	WG1762605
2-Methylnaphthalene	U		0.0674	0.250	1	10/26/2021 17:32	WG1762605
2-Chloronaphthalene	U		0.0682	0.250	1	10/26/2021 17:32	WG1762605
(S) Nitrobenzene-d5	*70.5*			*31.0-160*		*10/26/2021 17:32*	WG1762605
(S) 2-Fluorobiphenyl	*98.0*			*48.0-148*		*10/26/2021 17:32*	WG1762605
(S) p-Terphenyl-d14	*112*			*37.0-146*		*10/26/2021 17:32*	WG1762605

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/27/2021 07:36	WG1762928

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	1.19	J	0.180	2.00	1	10/27/2021 20:07	WG1763394
Barium	97.1		0.381	2.00	1	10/27/2021 20:07	WG1763394
Cadmium	U		0.150	1.00	1	10/27/2021 20:07	WG1763394
Chromium	7.09	B	1.24	2.00	1	10/27/2021 20:07	WG1763394
Lead	4.45		0.849	2.00	1	10/27/2021 20:07	WG1763394
Selenium	0.583	J	0.300	2.00	1	10/27/2021 22:29	WG1763394
Silver	0.0736	J	0.0700	2.00	1	10/27/2021 20:07	WG1763394

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	2.52	C5	0.548	1.00	1	10/23/2021 05:18	WG1761975
Acrylonitrile	U		0.0760	0.500	1	10/23/2021 05:18	WG1761975
Benzene	0.0240	J	0.0160	0.0400	1	10/23/2021 05:18	WG1761975
Bromobenzene	U		0.0420	0.500	1	10/23/2021 05:18	WG1761975
Bromochloromethane	U		0.0452	0.200	1	10/23/2021 05:18	WG1761975
Bromodichloromethane	U	J4	0.0315	0.100	1	10/23/2021 05:18	WG1761975
Bromoform	U		0.239	1.00	1	10/23/2021 05:18	WG1761975
Bromomethane	U		0.148	0.500	1	10/23/2021 05:18	WG1761975
n-Butylbenzene	U		0.153	0.500	1	10/23/2021 05:18	WG1761975
sec-Butylbenzene	U		0.101	0.500	1	10/23/2021 05:18	WG1761975
tert-Butylbenzene	U	C3	0.0620	0.200	1	10/23/2021 05:18	WG1761975
Carbon disulfide	U		0.162	0.500	1	10/23/2021 05:18	WG1761975
Carbon tetrachloride	U		0.0432	0.200	1	10/23/2021 05:18	WG1761975
Chlorobenzene	U		0.0229	0.100	1	10/23/2021 05:18	WG1761975
Chlorodibromomethane	U		0.0180	0.100	1	10/23/2021 05:18	WG1761975
Chloroethane	U		0.0432	0.200	1	10/23/2021 05:18	WG1761975
Chloroform	U		0.0166	0.100	1	10/23/2021 05:18	WG1761975
Chloromethane	U		0.0556	0.500	1	10/23/2021 05:18	WG1761975
2-Chlorotoluene	U		0.0368	0.100	1	10/23/2021 05:18	WG1761975
4-Chlorotoluene	U		0.0452	0.200	1	10/23/2021 05:18	WG1761975
1,2-Dibromo-3-Chloropropane	U	C3	0.204	1.00	1	10/23/2021 05:18	WG1761975
1,2-Dibromoethane	U		0.0210	0.100	1	10/23/2021 05:18	WG1761975
Dibromomethane	U	J4	0.0400	0.200	1	10/23/2021 05:18	WG1761975
1,2-Dichlorobenzene	U		0.0580	0.200	1	10/23/2021 05:18	WG1761975
1,3-Dichlorobenzene	U		0.0680	0.200	1	10/23/2021 05:18	WG1761975
1,4-Dichlorobenzene	U		0.0788	0.200	1	10/23/2021 05:18	WG1761975
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	10/23/2021 05:18	WG1761975
Dichlorodifluoromethane	U		0.0327	0.100	1	10/23/2021 05:18	WG1761975
1,1-Dichloroethane	U		0.0230	0.100	1	10/23/2021 05:18	WG1761975
1,2-Dichloroethane	U		0.0190	0.100	1	10/23/2021 05:18	WG1761975
1,1-Dichloroethene	U		0.0200	0.100	1	10/23/2021 05:18	WG1761975
cis-1,2-Dichloroethene	U		0.0276	0.100	1	10/23/2021 05:18	WG1761975
trans-1,2-Dichloroethene	U		0.0572	0.200	1	10/23/2021 05:18	WG1761975
1,2-Dichloropropane	U		0.0508	0.200	1	10/23/2021 05:18	WG1761975
1,1-Dichloropropene	U		0.0280	0.100	1	10/23/2021 05:18	WG1761975
1,3-Dichloropropane	U		0.0700	0.200	1	10/23/2021 05:18	WG1761975
cis-1,3-Dichloropropene	U		0.0271	0.100	1	10/23/2021 05:18	WG1761975
trans-1,3-Dichloropropene	U		0.0612	0.200	1	10/23/2021 05:18	WG1761975
2,2-Dichloropropane	U		0.0317	0.100	1	10/23/2021 05:18	WG1761975

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Di-isopropyl ether	U		0.0140	0.0400	1	10/23/2021 05:18	WG1761975
Ethylbenzene	U		0.0212	0.100	1	10/23/2021 05:18	WG1761975
Hexachloro-1,3-butadiene	U		0.508	1.00	1	10/23/2021 05:18	WG1761975
2-Hexanone	U		0.400	1.00	1	10/23/2021 05:18	WG1761975
n-Hexane	U		0.0424	0.200	1	10/23/2021 05:18	WG1761975
Iodomethane	U		0.242	0.500	1	10/23/2021 05:18	WG1761975
Isopropylbenzene	U		0.0345	0.100	1	10/23/2021 05:18	WG1761975
p-Isopropyltoluene	U		0.0932	0.200	1	10/23/2021 05:18	WG1761975
2-Butanone (MEK)	U		0.500	1.00	1	10/23/2021 05:18	WG1761975
Methylene Chloride	U		0.265	1.00	1	10/23/2021 05:18	WG1761975
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	10/23/2021 05:18	WG1761975
Methyl tert-butyl ether	U		0.0118	0.0400	1	10/23/2021 05:18	WG1761975
Naphthalene	U	C3	0.124	0.500	1	10/23/2021 05:18	WG1761975
n-Propylbenzene	U		0.0472	0.200	1	10/23/2021 05:18	WG1761975
Styrene	U		0.109	0.500	1	10/23/2021 05:18	WG1761975
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	10/23/2021 05:18	WG1761975
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	10/23/2021 05:18	WG1761975
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	10/23/2021 05:18	WG1761975
Tetrachloroethene	U		0.0280	0.100	1	10/23/2021 05:18	WG1761975
Toluene	0.116	J	0.0500	0.200	1	10/23/2021 05:18	WG1761975
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	10/23/2021 05:18	WG1761975
1,2,4-Trichlorobenzene	U		0.193	0.500	1	10/23/2021 05:18	WG1761975
1,1,1-Trichloroethane	U		0.0110	0.100	1	10/23/2021 05:18	WG1761975
1,1,2-Trichloroethane	U		0.0353	0.100	1	10/23/2021 05:18	WG1761975
Trichloroethene	U		0.0160	0.0400	1	10/23/2021 05:18	WG1761975
Trichlorofluoromethane	U		0.0200	0.100	1	10/23/2021 05:18	WG1761975
1,2,3-Trichloropropane	U		0.204	0.500	1	10/23/2021 05:18	WG1761975
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	10/23/2021 05:18	WG1761975
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	10/23/2021 05:18	WG1761975
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	10/23/2021 05:18	WG1761975
Vinyl acetate	U		0.141	0.500	1	10/23/2021 05:18	WG1761975
Vinyl chloride	U		0.0273	0.100	1	10/23/2021 05:18	WG1761975
Xylenes, Total	U		0.191	0.260	1	10/23/2021 05:18	WG1761975
(S) Toluene-d8	*94.4*			*75.0-131*		*10/23/2021 05:18*	WG1761975
(S) 4-Bromofluorobenzene	*89.9*			*67.0-138*		*10/23/2021 05:18*	WG1761975
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*10/23/2021 05:18*	WG1761975

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	155	J	66.7	200	1	10/30/2021 01:02	WG1765162
Residual Range Organics (RRO)	287		83.3	250	1	10/30/2021 01:02	WG1765162
(S) o-Terphenyl	*103*			*52.0-156*		*10/30/2021 01:02*	WG1765162

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
PCB 1016	U		0.270	0.500	1	10/24/2021 06:30	WG1761898
PCB 1221	U		0.270	0.500	1	10/24/2021 06:30	WG1761898
PCB 1232	U		0.270	0.500	1	10/24/2021 06:30	WG1761898
PCB 1242	U		0.270	0.500	1	10/24/2021 06:30	WG1761898
PCB 1248	U		0.173	0.500	1	10/24/2021 06:30	WG1761898
PCB 1254	U		0.173	0.500	1	10/24/2021 06:30	WG1761898
PCB 1260	U		0.173	0.500	1	10/24/2021 06:30	WG1761898
(S) Decachlorobiphenyl	*22.2*			*10.0-128*		*10/24/2021 06:30*	WG1761898

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
(S) Tetrachloro-m-xylene	*52.8*			*10.0-127*		*10/24/2021 06:30*	WG1761898

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Anthracene	U		0.0190	0.0500	1	10/26/2021 17:50	WG1762605
Acenaphthene	U		0.0190	0.0500	1	10/26/2021 17:50	WG1762605
Acenaphthylene	U		0.0171	0.0500	1	10/26/2021 17:50	WG1762605
Benzo(a)anthracene	U		0.0203	0.0500	1	10/26/2021 17:50	WG1762605
Benzo(a)pyrene	U		0.0184	0.0500	1	10/26/2021 17:50	WG1762605
Benzo(b)fluoranthene	U		0.0168	0.0500	1	10/26/2021 17:50	WG1762605
Benzo(g,h,i)perylene	U	J3	0.0184	0.0500	1	10/26/2021 17:50	WG1762605
Benzo(k)fluoranthene	U	J3	0.0202	0.0500	1	10/26/2021 17:50	WG1762605
Chrysene	U		0.0179	0.0500	1	10/26/2021 17:50	WG1762605
Dibenz(a,h)anthracene	U	J3	0.0160	0.0500	1	10/26/2021 17:50	WG1762605
Fluoranthene	U		0.0270	0.100	1	10/26/2021 17:50	WG1762605
Fluorene	U		0.0169	0.0500	1	10/26/2021 17:50	WG1762605
Indeno(1,2,3-cd)pyrene	U	J3	0.0158	0.0500	1	10/26/2021 17:50	WG1762605
Naphthalene	U		0.0917	0.250	1	10/26/2021 17:50	WG1762605
Phenanthrene	U		0.0180	0.0500	1	10/26/2021 17:50	WG1762605
Pyrene	U		0.0169	0.0500	1	10/26/2021 17:50	WG1762605
1-Methylnaphthalene	U		0.0687	0.250	1	10/26/2021 17:50	WG1762605
2-Methylnaphthalene	U		0.0674	0.250	1	10/26/2021 17:50	WG1762605
2-Chloronaphthalene	U		0.0682	0.250	1	10/26/2021 17:50	WG1762605
(S) Nitrobenzene-d5	*69.5*			*31.0-160*		*10/26/2021 17:50*	WG1762605
(S) 2-Fluorobiphenyl	*98.0*			*48.0-148*		*10/26/2021 17:50*	WG1762605
(S) p-Terphenyl-d14	*109*			*37.0-146*		*10/26/2021 17:50*	WG1762605

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Mercury	U		0.100	0.200	1	10/27/2021 07:42	WG1762928

Metals (ICPMS) by Method 6020B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Arsenic	1.15	J	0.180	2.00	1	10/27/2021 21:04	WG1763394
Barium	92.7		0.381	2.00	1	10/27/2021 21:04	WG1763394
Cadmium	U		0.150	1.00	1	10/27/2021 21:04	WG1763394
Chromium	2.45	B	1.24	2.00	1	10/27/2021 21:04	WG1763394
Lead	U		0.849	2.00	1	10/27/2021 21:04	WG1763394
Selenium	0.792	J	0.300	2.00	1	10/27/2021 22:51	WG1763394
Silver	U		0.0700	2.00	1	10/27/2021 21:04	WG1763394

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	1.41	C5	0.548	1.00	1	10/23/2021 05:37	WG1761975
Acrylonitrile	U		0.0760	0.500	1	10/23/2021 05:37	WG1761975
Benzene	0.0490		0.0160	0.0400	1	10/23/2021 05:37	WG1761975
Bromobenzene	U		0.0420	0.500	1	10/23/2021 05:37	WG1761975
Bromochloromethane	U		0.0452	0.200	1	10/23/2021 05:37	WG1761975
Bromodichloromethane	U	J4	0.0315	0.100	1	10/23/2021 05:37	WG1761975
Bromoform	U		0.239	1.00	1	10/23/2021 05:37	WG1761975
Bromomethane	U		0.148	0.500	1	10/23/2021 05:37	WG1761975
n-Butylbenzene	U		0.153	0.500	1	10/23/2021 05:37	WG1761975
sec-Butylbenzene	U		0.101	0.500	1	10/23/2021 05:37	WG1761975
tert-Butylbenzene	U	C3	0.0620	0.200	1	10/23/2021 05:37	WG1761975
Carbon disulfide	U		0.162	0.500	1	10/23/2021 05:37	WG1761975
Carbon tetrachloride	U		0.0432	0.200	1	10/23/2021 05:37	WG1761975
Chlorobenzene	U		0.0229	0.100	1	10/23/2021 05:37	WG1761975
Chlorodibromomethane	U		0.0180	0.100	1	10/23/2021 05:37	WG1761975
Chloroethane	U		0.0432	0.200	1	10/23/2021 05:37	WG1761975
Chloroform	U		0.0166	0.100	1	10/23/2021 05:37	WG1761975
Chloromethane	U		0.0556	0.500	1	10/23/2021 05:37	WG1761975
2-Chlorotoluene	U		0.0368	0.100	1	10/23/2021 05:37	WG1761975
4-Chlorotoluene	U		0.0452	0.200	1	10/23/2021 05:37	WG1761975
1,2-Dibromo-3-Chloropropane	U	C3	0.204	1.00	1	10/23/2021 05:37	WG1761975
1,2-Dibromoethane	U		0.0210	0.100	1	10/23/2021 05:37	WG1761975
Dibromomethane	U	J4	0.0400	0.200	1	10/23/2021 05:37	WG1761975
1,2-Dichlorobenzene	U		0.0580	0.200	1	10/23/2021 05:37	WG1761975
1,3-Dichlorobenzene	U		0.0680	0.200	1	10/23/2021 05:37	WG1761975
1,4-Dichlorobenzene	U		0.0788	0.200	1	10/23/2021 05:37	WG1761975
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	10/23/2021 05:37	WG1761975
Dichlorodifluoromethane	U		0.0327	0.100	1	10/23/2021 05:37	WG1761975
1,1-Dichloroethane	U		0.0230	0.100	1	10/23/2021 05:37	WG1761975
1,2-Dichloroethane	U		0.0190	0.100	1	10/23/2021 05:37	WG1761975
1,1-Dichloroethene	U		0.0200	0.100	1	10/23/2021 05:37	WG1761975
cis-1,2-Dichloroethene	U		0.0276	0.100	1	10/23/2021 05:37	WG1761975
trans-1,2-Dichloroethene	U		0.0572	0.200	1	10/23/2021 05:37	WG1761975
1,2-Dichloropropane	U		0.0508	0.200	1	10/23/2021 05:37	WG1761975
1,1-Dichloropropene	U		0.0280	0.100	1	10/23/2021 05:37	WG1761975
1,3-Dichloropropane	U		0.0700	0.200	1	10/23/2021 05:37	WG1761975
cis-1,3-Dichloropropene	U		0.0271	0.100	1	10/23/2021 05:37	WG1761975
trans-1,3-Dichloropropene	U		0.0612	0.200	1	10/23/2021 05:37	WG1761975
2,2-Dichloropropane	U		0.0317	0.100	1	10/23/2021 05:37	WG1761975

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Di-isopropyl ether	U		0.0140	0.0400	1	10/23/2021 05:37	WG1761975
Ethylbenzene	U		0.0212	0.100	1	10/23/2021 05:37	WG1761975
Hexachloro-1,3-butadiene	U		0.508	1.00	1	10/23/2021 05:37	WG1761975
2-Hexanone	U		0.400	1.00	1	10/23/2021 05:37	WG1761975
n-Hexane	U		0.0424	0.200	1	10/23/2021 05:37	WG1761975
Iodomethane	U		0.242	0.500	1	10/23/2021 05:37	WG1761975
Isopropylbenzene	U		0.0345	0.100	1	10/23/2021 05:37	WG1761975
p-Isopropyltoluene	U		0.0932	0.200	1	10/23/2021 05:37	WG1761975
2-Butanone (MEK)	U		0.500	1.00	1	10/23/2021 05:37	WG1761975
Methylene Chloride	U		0.265	1.00	1	10/23/2021 05:37	WG1761975
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	10/23/2021 05:37	WG1761975
Methyl tert-butyl ether	U		0.0118	0.0400	1	10/23/2021 05:37	WG1761975
Naphthalene	U	C3	0.124	0.500	1	10/23/2021 05:37	WG1761975
n-Propylbenzene	U		0.0472	0.200	1	10/23/2021 05:37	WG1761975
Styrene	U		0.109	0.500	1	10/23/2021 05:37	WG1761975
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	10/23/2021 05:37	WG1761975
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	10/23/2021 05:37	WG1761975
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	10/23/2021 05:37	WG1761975
Tetrachloroethene	U		0.0280	0.100	1	10/23/2021 05:37	WG1761975
Toluene	0.0810	J	0.0500	0.200	1	10/23/2021 05:37	WG1761975
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	10/23/2021 05:37	WG1761975
1,2,4-Trichlorobenzene	U		0.193	0.500	1	10/23/2021 05:37	WG1761975
1,1,1-Trichloroethane	U		0.0110	0.100	1	10/23/2021 05:37	WG1761975
1,1,2-Trichloroethane	U		0.0353	0.100	1	10/23/2021 05:37	WG1761975
Trichloroethene	U		0.0160	0.0400	1	10/23/2021 05:37	WG1761975
Trichlorofluoromethane	U		0.0200	0.100	1	10/23/2021 05:37	WG1761975
1,2,3-Trichloropropane	U		0.204	0.500	1	10/23/2021 05:37	WG1761975
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	10/23/2021 05:37	WG1761975
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	10/23/2021 05:37	WG1761975
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	10/23/2021 05:37	WG1761975
Vinyl acetate	U		0.141	0.500	1	10/23/2021 05:37	WG1761975
Vinyl chloride	U		0.0273	0.100	1	10/23/2021 05:37	WG1761975
Xylenes, Total	U		0.191	0.260	1	10/23/2021 05:37	WG1761975
(S) Toluene-d8	*96.1*			*75.0-131*		*10/23/2021 05:37*	WG1761975
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*10/23/2021 05:37*	WG1761975
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*10/23/2021 05:37*	WG1761975

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	U		66.7	200	1	10/29/2021 10:08	WG1765164
Residual Range Organics (RRO)	U		83.3	250	1	10/29/2021 10:08	WG1765164
(S) o-Terphenyl	*103*			*52.0-156*		*10/29/2021 10:08*	WG1765164

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	10/26/2021 18:08	WG1762605
Acenaphthene	U		0.0190	0.0500	1	10/26/2021 18:08	WG1762605
Acenaphthylene	U		0.0171	0.0500	1	10/26/2021 18:08	WG1762605
Benzo(a)anthracene	U		0.0203	0.0500	1	10/26/2021 18:08	WG1762605
Benzo(a)pyrene	U		0.0184	0.0500	1	10/26/2021 18:08	WG1762605
Benzo(b)fluoranthene	U		0.0168	0.0500	1	10/26/2021 18:08	WG1762605
Benzo(g,h,i)perylene	U	J3	0.0184	0.0500	1	10/26/2021 18:08	WG1762605
Benzo(k)fluoranthene	U	J3	0.0202	0.0500	1	10/26/2021 18:08	WG1762605

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Chrysene	U		0.0179	0.0500	1	10/26/2021 18:08	WG1762605
Dibenz(a,h)anthracene	U	J3	0.0160	0.0500	1	10/26/2021 18:08	WG1762605
Fluoranthene	U		0.0270	0.100	1	10/26/2021 18:08	WG1762605
Fluorene	U		0.0169	0.0500	1	10/26/2021 18:08	WG1762605
Indeno(1,2,3-cd)pyrene	U	J3	0.0158	0.0500	1	10/26/2021 18:08	WG1762605
Naphthalene	U		0.0917	0.250	1	10/26/2021 18:08	WG1762605
Phenanthrene	U		0.0180	0.0500	1	10/26/2021 18:08	WG1762605
Pyrene	U		0.0169	0.0500	1	10/26/2021 18:08	WG1762605
1-Methylnaphthalene	U		0.0687	0.250	1	10/26/2021 18:08	WG1762605
2-Methylnaphthalene	U		0.0674	0.250	1	10/26/2021 18:08	WG1762605
2-Chloronaphthalene	U		0.0682	0.250	1	10/26/2021 18:08	WG1762605
(S) Nitrobenzene-d5	*45.4*			*31.0-160*		*10/26/2021 18:08*	WG1762605
(S) 2-Fluorobiphenyl	*101*			*48.0-148*		*10/26/2021 18:08*	WG1762605
(S) p-Terphenyl-d14	*116*			*37.0-146*		*10/26/2021 18:08*	WG1762605

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	20.4	C5	0.548	1.00	1	10/23/2021 05:57	WG1761975
Acrylonitrile	U		0.0760	0.500	1	10/23/2021 05:57	WG1761975
Benzene	0.134		0.0160	0.0400	1	10/23/2021 05:57	WG1761975
Bromobenzene	U		0.0420	0.500	1	10/23/2021 05:57	WG1761975
Bromochloromethane	U		0.0452	0.200	1	10/23/2021 05:57	WG1761975
Bromodichloromethane	0.0620	J J4	0.0315	0.100	1	10/23/2021 05:57	WG1761975
Bromoform	U		0.239	1.00	1	10/23/2021 05:57	WG1761975
Bromomethane	U		0.148	0.500	1	10/23/2021 05:57	WG1761975
n-Butylbenzene	U		0.153	0.500	1	10/23/2021 05:57	WG1761975
sec-Butylbenzene	U		0.101	0.500	1	10/23/2021 05:57	WG1761975
tert-Butylbenzene	U	C3	0.0620	0.200	1	10/23/2021 05:57	WG1761975
Carbon disulfide	U		0.162	0.500	1	10/23/2021 05:57	WG1761975
Carbon tetrachloride	U		0.0432	0.200	1	10/23/2021 05:57	WG1761975
Chlorobenzene	U		0.0229	0.100	1	10/23/2021 05:57	WG1761975
Chlorodibromomethane	U		0.0180	0.100	1	10/23/2021 05:57	WG1761975
Chloroethane	U		0.0432	0.200	1	10/23/2021 05:57	WG1761975
Chloroform	0.205	C5	0.0166	0.100	1	10/23/2021 05:57	WG1761975
Chloromethane	U		0.0556	0.500	1	10/23/2021 05:57	WG1761975
2-Chlorotoluene	U		0.0368	0.100	1	10/23/2021 05:57	WG1761975
4-Chlorotoluene	U		0.0452	0.200	1	10/23/2021 05:57	WG1761975
1,2-Dibromo-3-Chloropropane	U	C3	0.204	1.00	1	10/23/2021 05:57	WG1761975
1,2-Dibromoethane	U		0.0210	0.100	1	10/23/2021 05:57	WG1761975
Dibromomethane	U	J4	0.0400	0.200	1	10/23/2021 05:57	WG1761975
1,2-Dichlorobenzene	U		0.0580	0.200	1	10/23/2021 05:57	WG1761975
1,3-Dichlorobenzene	U		0.0680	0.200	1	10/23/2021 05:57	WG1761975
1,4-Dichlorobenzene	U		0.0788	0.200	1	10/23/2021 05:57	WG1761975
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	10/23/2021 05:57	WG1761975
Dichlorodifluoromethane	U		0.0327	0.100	1	10/23/2021 05:57	WG1761975
1,1-Dichloroethane	U		0.0230	0.100	1	10/23/2021 05:57	WG1761975
1,2-Dichloroethane	U		0.0190	0.100	1	10/23/2021 05:57	WG1761975
1,1-Dichloroethene	U		0.0200	0.100	1	10/23/2021 05:57	WG1761975
cis-1,2-Dichloroethene	U		0.0276	0.100	1	10/23/2021 05:57	WG1761975
trans-1,2-Dichloroethene	U		0.0572	0.200	1	10/23/2021 05:57	WG1761975
1,2-Dichloropropane	U		0.0508	0.200	1	10/23/2021 05:57	WG1761975
1,1-Dichloropropene	U		0.0280	0.100	1	10/23/2021 05:57	WG1761975
1,3-Dichloropropane	U		0.0700	0.200	1	10/23/2021 05:57	WG1761975
cis-1,3-Dichloropropene	U		0.0271	0.100	1	10/23/2021 05:57	WG1761975
trans-1,3-Dichloropropene	U		0.0612	0.200	1	10/23/2021 05:57	WG1761975
2,2-Dichloropropane	U		0.0317	0.100	1	10/23/2021 05:57	WG1761975
Di-isopropyl ether	U		0.0140	0.0400	1	10/23/2021 05:57	WG1761975
Ethylbenzene	0.339		0.0212	0.100	1	10/23/2021 05:57	WG1761975
Hexachloro-1,3-butadiene	U		0.508	1.00	1	10/23/2021 05:57	WG1761975
2-Hexanone	U		0.400	1.00	1	10/23/2021 05:57	WG1761975
n-Hexane	U		0.0424	0.200	1	10/23/2021 05:57	WG1761975
Iodomethane	U		0.242	0.500	1	10/23/2021 05:57	WG1761975
Isopropylbenzene	U		0.0345	0.100	1	10/23/2021 05:57	WG1761975
p-Isopropyltoluene	1.35		0.0932	0.200	1	10/23/2021 05:57	WG1761975
2-Butanone (MEK)	1.19		0.500	1.00	1	10/23/2021 05:57	WG1761975
Methylene Chloride	U		0.265	1.00	1	10/23/2021 05:57	WG1761975
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	10/23/2021 05:57	WG1761975
Methyl tert-butyl ether	U		0.0118	0.0400	1	10/23/2021 05:57	WG1761975
Naphthalene	U	C3	0.124	0.500	1	10/23/2021 05:57	WG1761975
n-Propylbenzene	U		0.0472	0.200	1	10/23/2021 05:57	WG1761975
Styrene	U		0.109	0.500	1	10/23/2021 05:57	WG1761975
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	10/23/2021 05:57	WG1761975
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	10/23/2021 05:57	WG1761975

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	10/23/2021 05:57	WG1761975
Tetrachloroethene	U		0.0280	0.100	1	10/23/2021 05:57	WG1761975
Toluene	0.483		0.0500	0.200	1	10/23/2021 05:57	WG1761975
1,2,3-Trichlorobenzene	U		0.0250	0.500	1	10/23/2021 05:57	WG1761975
1,2,4-Trichlorobenzene	U		0.193	0.500	1	10/23/2021 05:57	WG1761975
1,1,1-Trichloroethane	U		0.0110	0.100	1	10/23/2021 05:57	WG1761975
1,1,2-Trichloroethane	U		0.0353	0.100	1	10/23/2021 05:57	WG1761975
Trichloroethene	U		0.0160	0.0400	1	10/23/2021 05:57	WG1761975
Trichlorofluoromethane	U		0.0200	0.100	1	10/23/2021 05:57	WG1761975
1,2,3-Trichloropropane	U		0.204	0.500	1	10/23/2021 05:57	WG1761975
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	10/23/2021 05:57	WG1761975
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	10/23/2021 05:57	WG1761975
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	10/23/2021 05:57	WG1761975
Vinyl acetate	U		0.141	0.500	1	10/23/2021 05:57	WG1761975
Vinyl chloride	U		0.0273	0.100	1	10/23/2021 05:57	WG1761975
Xylenes, Total	2.00		0.191	0.260	1	10/23/2021 05:57	WG1761975
(S) Toluene-d8	*90.6*			*75.0-131*		*10/23/2021 05:57*	WG1761975
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*		*10/23/2021 05:57*	WG1761975
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*10/23/2021 05:57*	WG1761975

Semi-Volatile Organic Compounds (GC) by Method NWTPHDX-NO SGT

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Diesel Range Organics (DRO)	512		66.7	200	1	10/29/2021 10:29	WG1765164
Residual Range Organics (RRO)	164	J	83.3	250	1	10/29/2021 10:29	WG1765164
(S) o-Terphenyl	*63.5*			*52.0-156*		*10/29/2021 10:29*	WG1765164

Polychlorinated Biphenyls (GC) by Method 8082 A

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
PCB 1016	U		0.270	0.500	1	10/24/2021 07:40	WG1761898
PCB 1221	U		0.270	0.500	1	10/24/2021 07:40	WG1761898
PCB 1232	U		0.270	0.500	1	10/24/2021 07:40	WG1761898
PCB 1242	U		0.270	0.500	1	10/24/2021 07:40	WG1761898
PCB 1248	U		0.173	0.500	1	10/24/2021 07:40	WG1761898
PCB 1254	U		0.173	0.500	1	10/24/2021 07:40	WG1761898
PCB 1260	U		0.173	0.500	1	10/24/2021 07:40	WG1761898
(S) Decachlorobiphenyl	*26.3*			*10.0-128*		*10/24/2021 07:40*	WG1761898
(S) Tetrachloro-m-xylene	*62.4*			*10.0-127*		*10/24/2021 07:40*	WG1761898

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0190	0.0500	1	10/26/2021 14:39	WG1762605
Acenaphthene	U		0.0190	0.0500	1	10/26/2021 14:39	WG1762605
Acenaphthylene	U		0.0171	0.0500	1	10/26/2021 14:39	WG1762605
Benzo(a)anthracene	U		0.0203	0.0500	1	10/26/2021 14:39	WG1762605
Benzo(a)pyrene	U		0.0184	0.0500	1	10/26/2021 14:39	WG1762605
Benzo(b)fluoranthene	U		0.0168	0.0500	1	10/26/2021 14:39	WG1762605
Benzo(g,h,i)perylene	U	J3	0.0184	0.0500	1	10/26/2021 14:39	WG1762605
Benzo(k)fluoranthene	U	J3	0.0202	0.0500	1	10/26/2021 14:39	WG1762605
Chrysene	U		0.0179	0.0500	1	10/26/2021 14:39	WG1762605
Dibenz(a,h)anthracene	U	J3	0.0160	0.0500	1	10/26/2021 14:39	WG1762605
Fluoranthene	U		0.0270	0.100	1	10/26/2021 14:39	WG1762605
Fluorene	U		0.0169	0.0500	1	10/26/2021 14:39	WG1762605

Semi Volatile Organic Compounds (GC/MS) by Method 8270E-SIM

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Indeno(1,2,3-cd)pyrene	U	J3	0.0158	0.0500	1	10/26/2021 14:39	WG1762605
Naphthalene	U		0.0917	0.250	1	10/26/2021 14:39	WG1762605
Phenanthrene	U		0.0180	0.0500	1	10/26/2021 14:39	WG1762605
Pyrene	U		0.0169	0.0500	1	10/26/2021 14:39	WG1762605
1-Methylnaphthalene	U		0.0687	0.250	1	10/26/2021 14:39	WG1762605
2-Methylnaphthalene	U		0.0674	0.250	1	10/26/2021 14:39	WG1762605
2-Chloronaphthalene	U		0.0682	0.250	1	10/26/2021 14:39	WG1762605
(S) Nitrobenzene-d5	*84.5*			*31.0-160*		*10/26/2021 14:39*	WG1762605
(S) 2-Fluorobiphenyl	*61.5*			*48.0-148*		*10/26/2021 14:39*	WG1762605
(S) p-Terphenyl-d14	*44.2*			*37.0-146*		*10/26/2021 14:39*	WG1762605

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Acetone	U		0.548	1.00	1	10/26/2021 03:39	WG1763302
Acrylonitrile	U		0.0760	0.500	1	10/26/2021 03:39	WG1763302
Benzene	U		0.0160	0.0400	1	10/26/2021 03:39	WG1763302
Bromobenzene	U		0.0420	0.500	1	10/26/2021 03:39	WG1763302
Bromochloromethane	U		0.0452	0.200	1	10/26/2021 03:39	WG1763302
Bromodichloromethane	U		0.0315	0.100	1	10/26/2021 03:39	WG1763302
Bromoform	U		0.239	1.00	1	10/26/2021 03:39	WG1763302
Bromomethane	U	C3	0.148	0.500	1	10/26/2021 03:39	WG1763302
n-Butylbenzene	U		0.153	0.500	1	10/26/2021 03:39	WG1763302
sec-Butylbenzene	U		0.101	0.500	1	10/26/2021 03:39	WG1763302
tert-Butylbenzene	U		0.0620	0.200	1	10/26/2021 03:39	WG1763302
Carbon disulfide	U		0.162	0.500	1	10/26/2021 03:39	WG1763302
Carbon tetrachloride	U		0.0432	0.200	1	10/26/2021 03:39	WG1763302
Chlorobenzene	U		0.0229	0.100	1	10/26/2021 03:39	WG1763302
Chlorodibromomethane	U		0.0180	0.100	1	10/26/2021 03:39	WG1763302
Chloroethane	U		0.0432	0.200	1	10/26/2021 03:39	WG1763302
Chloroform	U		0.0166	0.100	1	10/26/2021 03:39	WG1763302
Chloromethane	U		0.0556	0.500	1	10/26/2021 03:39	WG1763302
2-Chlorotoluene	U		0.0368	0.100	1	10/26/2021 03:39	WG1763302
4-Chlorotoluene	U		0.0452	0.200	1	10/26/2021 03:39	WG1763302
1,2-Dibromo-3-Chloropropane	U		0.204	1.00	1	10/26/2021 03:39	WG1763302
1,2-Dibromoethane	U		0.0210	0.100	1	10/26/2021 03:39	WG1763302
Dibromomethane	U		0.0400	0.200	1	10/26/2021 03:39	WG1763302
1,2-Dichlorobenzene	U		0.0580	0.200	1	10/26/2021 03:39	WG1763302
1,3-Dichlorobenzene	U		0.0680	0.200	1	10/26/2021 03:39	WG1763302
1,4-Dichlorobenzene	U		0.0788	0.200	1	10/26/2021 03:39	WG1763302
trans-1,4-Dichloro-2-butene	U		0.0560	0.200	1	10/26/2021 03:39	WG1763302
Dichlorodifluoromethane	U		0.0327	0.100	1	10/26/2021 03:39	WG1763302
1,1-Dichloroethane	U		0.0230	0.100	1	10/26/2021 03:39	WG1763302
1,2-Dichloroethane	U		0.0190	0.100	1	10/26/2021 03:39	WG1763302
1,1-Dichloroethene	U		0.0200	0.100	1	10/26/2021 03:39	WG1763302
cis-1,2-Dichloroethene	U		0.0276	0.100	1	10/26/2021 03:39	WG1763302
trans-1,2-Dichloroethene	U		0.0572	0.200	1	10/26/2021 03:39	WG1763302
1,2-Dichloropropane	U		0.0508	0.200	1	10/26/2021 03:39	WG1763302
1,1-Dichloropropene	U		0.0280	0.100	1	10/26/2021 03:39	WG1763302
1,3-Dichloropropane	U		0.0700	0.200	1	10/26/2021 03:39	WG1763302
cis-1,3-Dichloropropene	U		0.0271	0.100	1	10/26/2021 03:39	WG1763302
trans-1,3-Dichloropropene	U		0.0612	0.200	1	10/26/2021 03:39	WG1763302
2,2-Dichloropropane	U		0.0317	0.100	1	10/26/2021 03:39	WG1763302
Di-isopropyl ether	U		0.0140	0.0400	1	10/26/2021 03:39	WG1763302
Ethylbenzene	U		0.0212	0.100	1	10/26/2021 03:39	WG1763302
Hexachloro-1,3-butadiene	U	C3	0.508	1.00	1	10/26/2021 03:39	WG1763302
2-Hexanone	U		0.400	1.00	1	10/26/2021 03:39	WG1763302
n-Hexane	U		0.0424	0.200	1	10/26/2021 03:39	WG1763302
Iodomethane	U		0.242	0.500	1	10/26/2021 03:39	WG1763302
Isopropylbenzene	U		0.0345	0.100	1	10/26/2021 03:39	WG1763302
p-Isopropyltoluene	U		0.0932	0.200	1	10/26/2021 03:39	WG1763302
2-Butanone (MEK)	U		0.500	1.00	1	10/26/2021 03:39	WG1763302
Methylene Chloride	U		0.265	1.00	1	10/26/2021 03:39	WG1763302
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00	1	10/26/2021 03:39	WG1763302
Methyl tert-butyl ether	U		0.0118	0.0400	1	10/26/2021 03:39	WG1763302
Naphthalene	U	C3	0.124	0.500	1	10/26/2021 03:39	WG1763302
n-Propylbenzene	U		0.0472	0.200	1	10/26/2021 03:39	WG1763302
Styrene	U		0.109	0.500	1	10/26/2021 03:39	WG1763302
1,1,1,2-Tetrachloroethane	U		0.0200	0.100	1	10/26/2021 03:39	WG1763302
1,1,2,2-Tetrachloroethane	U		0.0156	0.100	1	10/26/2021 03:39	WG1763302

Volatile Organic Compounds (GC/MS) by Method 8260D

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100	1	10/26/2021 03:39	WG1763302
Tetrachloroethene	U		0.0280	0.100	1	10/26/2021 03:39	WG1763302
Toluene	U		0.0500	0.200	1	10/26/2021 03:39	WG1763302
1,2,3-Trichlorobenzene	U	C4	0.0250	0.500	1	10/26/2021 03:39	WG1763302
1,2,4-Trichlorobenzene	U	C4	0.193	0.500	1	10/26/2021 03:39	WG1763302
1,1,1-Trichloroethane	U		0.0110	0.100	1	10/26/2021 03:39	WG1763302
1,1,2-Trichloroethane	U		0.0353	0.100	1	10/26/2021 03:39	WG1763302
Trichloroethene	U		0.0160	0.0400	1	10/26/2021 03:39	WG1763302
Trichlorofluoromethane	U		0.0200	0.100	1	10/26/2021 03:39	WG1763302
1,2,3-Trichloropropane	U		0.204	0.500	1	10/26/2021 03:39	WG1763302
1,2,4-Trimethylbenzene	U		0.0464	0.200	1	10/26/2021 03:39	WG1763302
1,2,3-Trimethylbenzene	U		0.0460	0.200	1	10/26/2021 03:39	WG1763302
1,3,5-Trimethylbenzene	U		0.0432	0.200	1	10/26/2021 03:39	WG1763302
Vinyl acetate	U	J3	0.141	0.500	1	10/26/2021 03:39	WG1763302
Vinyl chloride	U		0.0273	0.100	1	10/26/2021 03:39	WG1763302
Xylenes, Total	U		0.191	0.260	1	10/26/2021 03:39	WG1763302
(S) Toluene-d8	*103*			*75.0-131*		*10/26/2021 03:39*	WG1763302
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*10/26/2021 03:39*	WG1763302
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*10/26/2021 03:39*	WG1763302

Method Blank (MB)

(MB) R3721210-1 10/25/21 08:48

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1421071-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1421071-02 10/25/21 08:48 • (DUP) R3721210-3 10/25/21 08:48

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.4	82.7	1	0.874		10

Laboratory Control Sample (LCS)

(LCS) R3721210-2 10/25/21 08:48

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3721208-1 10/25/21 08:41

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1421083-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1421083-02 10/25/21 08:41 • (DUP) R3721208-3 10/25/21 08:41

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	89.9	91.2	1	1.44		10

Laboratory Control Sample (LCS)

(LCS) R3721208-2 10/25/21 08:41

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3721935-1 10/27/21 07:19

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Mercury	U		0.100	0.200

Laboratory Control Sample (LCS)

(LCS) R3721935-2 10/27/21 07:20

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	3.00	3.16	105	80.0-120	

L1421800-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421800-01 10/27/21 07:22 • (MS) R3721935-3 10/27/21 07:24 • (MSD) R3721935-4 10/27/21 07:26

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	3.00	U	3.42	3.19	114	106	1	75.0-125			6.99	20

Method Blank (MB)

(MB) R3721394-1 10/26/21 10:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3721394-2 10/26/21 10:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.543	109	80.0-120	

L1421083-13 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421083-13 10/26/21 10:32 • (MS) R3721394-3 10/26/21 10:34 • (MSD) R3721394-4 10/26/21 10:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.525	U	0.631	0.610	120	116	1	75.0-125			3.47	20

Method Blank (MB)

(MB) R3722247-6 10/27/21 20:46

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Arsenic	U		0.180	2.00
Barium	U		0.381	2.00
Cadmium	U		0.150	1.00
Chromium	1.77	J	1.24	2.00
Lead	U		0.849	2.00
Silver	U		0.0700	2.00

Method Blank (MB)

(MB) R3722269-1 10/27/21 22:22

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Selenium	U		0.300	2.00

Laboratory Control Sample (LCS)

(LCS) R3722247-2 10/27/21 20:03

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	50.0	50.6	101	80.0-120	
Barium	50.0	48.6	97.2	80.0-120	
Cadmium	50.0	52.0	104	80.0-120	
Chromium	50.0	53.1	106	80.0-120	
Lead	50.0	50.0	100	80.0-120	
Silver	50.0	49.4	98.8	80.0-120	

Laboratory Control Sample (LCS)

(LCS) R3722269-2 10/27/21 22:26

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Selenium	50.0	50.1	100	80.0-120	

L1421071-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421071-14 10/27/21 20:07 • (MS) R3722247-4 10/27/21 20:14 • (MSD) R3722247-5 10/27/21 20:18

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	50.0	1.19	53.2	51.2	104	100	1	75.0-125			3.85	20
Barium	50.0	97.1	152	155	109	116	1	75.0-125			2.44	20
Cadmium	50.0	U	53.1	54.1	106	108	1	75.0-125			1.90	20
Chromium	50.0	7.09	61.5	65.0	109	116	1	75.0-125			5.53	20
Lead	50.0	4.45	54.3	59.1	99.7	109	1	75.0-125			8.52	20
Silver	50.0	0.0736	50.1	50.4	100	101	1	75.0-125			0.602	20

L1421071-14 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421071-14 10/27/21 22:29 • (MS) R3722269-4 10/27/21 22:36 • (MSD) R3722269-5 10/27/21 22:40

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium	50.0	0.583	51.0	52.0	101	103	1	75.0-125			1.95	20

Method Blank (MB)

(MB) R3722219-1 10/27/21 18:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.100	1.00
Barium	U		0.152	2.50
Cadmium	U		0.0855	1.00
Chromium	U		0.297	5.00
Lead	U		0.0990	2.00
Selenium	U		0.180	2.50
Silver	U		0.0865	0.500

Laboratory Control Sample (LCS)

(LCS) R3722219-2 10/27/21 18:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	94.6	94.6	80.0-120	
Barium	100	100	100	80.0-120	
Cadmium	100	98.9	98.9	80.0-120	
Chromium	100	95.6	95.6	80.0-120	
Lead	100	99.0	99.0	80.0-120	
Selenium	100	95.7	95.7	80.0-120	
Silver	20.0	20.0	99.8	80.0-120	

L1421071-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421071-10 10/27/21 18:24 • (MS) R3722219-5 10/27/21 18:34 • (MSD) R3722219-6 10/27/21 18:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	128	3.30	117	116	89.0	88.0	5	75.0-125			1.12	20
Barium	128	100	243	235	112	105	5	75.0-125			3.57	20
Cadmium	128	U	128	126	99.6	98.0	5	75.0-125			1.68	20
Chromium	128	21.9	139	140	91.2	92.0	5	75.0-125			0.757	20
Lead	128	5.86	133	125	99.0	92.9	5	75.0-125			6.07	20
Selenium	128	0.271	122	121	95.3	94.3	5	75.0-125			1.06	20
Silver	25.7	U	25.1	24.9	97.9	97.1	5	75.0-125			0.829	20

Method Blank (MB)

(MB) R3725266-3 10/22/21 23:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromodichloromethane	U		0.0315	0.100
Bromochloromethane	U		0.0452	0.200
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon disulfide	U		0.162	0.500
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
trans-1,4-Dichloro-2-butene	U		0.0560	0.200
Dichlorodifluoromethane	U		0.0327	0.100
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400

Method Blank (MB)

(MB) R3725266-3 10/22/21 23:29

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
n-Hexane	U		0.0424	0.200
2-Hexanone	U		0.400	1.00
Iodomethane	U		0.242	0.500
Isopropylbenzene	U		0.0345	0.100
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl acetate	U		0.141	0.500
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	*93.6*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*116*			*70.0-130*

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Is
8 Gl
9 Al
10 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3725266-1 10/22/21 22:11 • (LCSD) R3725266-2 10/22/21 22:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	32.6	34.8	130	139	10.0-160			6.53	31
Acrylonitrile	25.0	27.0	27.7	108	111	45.0-153			2.56	22
Benzene	5.00	5.98	6.07	120	121	70.0-123			1.49	20
Bromobenzene	5.00	4.70	4.38	94.0	87.6	73.0-121			7.05	20
Bromodichloromethane	5.00	6.35	6.43	127	129	73.0-121	J4	J4	1.25	20
Bromochloromethane	5.00	5.29	5.12	106	102	77.0-128			3.27	20
Bromoform	5.00	4.55	4.52	91.0	90.4	64.0-132			0.662	20
Bromomethane	5.00	6.26	6.16	125	123	56.0-147			1.61	20
n-Butylbenzene	5.00	4.96	4.44	99.2	88.8	68.0-135			11.1	20
sec-Butylbenzene	5.00	4.30	4.44	86.0	88.8	74.0-130			3.20	20
tert-Butylbenzene	5.00	3.95	4.22	79.0	84.4	75.0-127			6.61	20
Carbon disulfide	5.00	4.82	5.00	96.4	100	56.0-133			3.67	20
Carbon tetrachloride	5.00	5.64	5.43	113	109	66.0-128			3.79	20
Chlorobenzene	5.00	5.09	4.87	102	97.4	76.0-128			4.42	20
Chlorodibromomethane	5.00	5.32	4.79	106	95.8	74.0-127			10.5	20
Chloroethane	5.00	5.29	5.10	106	102	61.0-134			3.66	20
Chloroform	5.00	6.11	6.08	122	122	72.0-123			0.492	20
Chloromethane	5.00	4.95	4.57	99.0	91.4	51.0-138			7.98	20
2-Chlorotoluene	5.00	4.46	4.24	89.2	84.8	75.0-124			5.06	20
4-Chlorotoluene	5.00	4.56	4.56	91.2	91.2	75.0-124			0.000	20
1,2-Dibromo-3-Chloropropane	5.00	3.92	3.42	78.4	68.4	59.0-130			13.6	20
1,2-Dibromoethane	5.00	4.72	4.57	94.4	91.4	74.0-128			3.23	20
Dibromomethane	5.00	6.46	6.46	129	129	75.0-122	J4	J4	0.000	20
1,2-Dichlorobenzene	5.00	5.25	4.81	105	96.2	76.0-124			8.75	20
1,3-Dichlorobenzene	5.00	4.58	4.67	91.6	93.4	76.0-125			1.95	20
1,4-Dichlorobenzene	5.00	4.42	4.66	88.4	93.2	77.0-121			5.29	20
trans-1,4-Dichloro-2-butene	5.00	4.41	4.21	88.2	84.2	45.0-143			4.64	20
Dichlorodifluoromethane	5.00	4.77	4.30	95.4	86.0	43.0-156			10.4	20
1,1-Dichloroethane	5.00	5.24	5.27	105	105	70.0-127			0.571	20
1,2-Dichloroethane	5.00	5.60	5.96	112	119	65.0-131			6.23	20
1,1-Dichloroethene	5.00	4.90	5.35	98.0	107	65.0-131			8.78	20
cis-1,2-Dichloroethene	5.00	5.82	5.31	116	106	73.0-125			9.16	20
trans-1,2-Dichloroethene	5.00	5.87	5.50	117	110	71.0-125			6.51	20
1,2-Dichloropropane	5.00	5.75	6.15	115	123	74.0-125			6.72	20
1,1-Dichloropropene	5.00	5.03	5.37	101	107	73.0-125			6.54	20
1,3-Dichloropropane	5.00	4.85	4.90	97.0	98.0	80.0-125			1.03	20
cis-1,3-Dichloropropene	5.00	6.13	5.99	123	120	76.0-127			2.31	20
trans-1,3-Dichloropropene	5.00	4.87	4.72	97.4	94.4	73.0-127			3.13	20
2,2-Dichloropropane	5.00	6.40	6.18	128	124	59.0-135			3.50	20
Di-isopropyl ether	5.00	5.19	5.78	104	116	60.0-136			10.8	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3725266-1 10/22/21 22:11 • (LCSD) R3725266-2 10/22/21 22:31

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	5.00	5.03	4.90	101	98.0	74.0-126			2.62	20
Hexachloro-1,3-butadiene	5.00	4.64	3.98	92.8	79.6	57.0-150			15.3	20
n-Hexane	5.00	5.33	4.51	107	90.2	55.0-137			16.7	20
2-Hexanone	25.0	22.8	24.5	91.2	98.0	54.0-147			7.19	20
Iodomethane	25.0	27.7	28.2	111	113	74.0-134			1.79	20
Isopropylbenzene	5.00	4.84	4.81	96.8	96.2	72.0-127			0.622	20
p-Isopropyltoluene	5.00	4.39	4.28	87.8	85.6	72.0-133			2.54	20
2-Butanone (MEK)	25.0	26.6	25.2	106	101	30.0-160			5.41	24
Methylene Chloride	5.00	5.19	5.35	104	107	68.0-123			3.04	20
4-Methyl-2-pentanone (MIBK)	25.0	22.2	24.0	88.8	96.0	56.0-143			7.79	20
Methyl tert-butyl ether	5.00	5.78	5.20	116	104	66.0-132			10.6	20
Naphthalene	5.00	3.76	3.56	75.2	71.2	59.0-130			5.46	20
n-Propylbenzene	5.00	4.59	4.39	91.8	87.8	74.0-126			4.45	20
Styrene	5.00	4.93	4.68	98.6	93.6	72.0-127			5.20	20
1,1,1,2-Tetrachloroethane	5.00	5.73	5.48	115	110	74.0-129			4.46	20
1,1,2,2-Tetrachloroethane	5.00	4.68	4.46	93.6	89.2	68.0-128			4.81	20
Tetrachloroethene	5.00	5.10	4.66	102	93.2	70.0-136			9.02	20
Toluene	5.00	5.02	5.00	100	100	75.0-121			0.399	20
1,1,2-Trichlorotrifluoroethane	5.00	5.25	5.17	105	103	61.0-139			1.54	20
1,2,3-Trichlorobenzene	5.00	4.57	4.37	91.4	87.4	59.0-139			4.47	20
1,2,4-Trichlorobenzene	5.00	5.84	5.29	117	106	62.0-137			9.88	20
1,1,1-Trichloroethane	5.00	6.28	6.19	126	124	69.0-126			1.44	20
1,1,2-Trichloroethane	5.00	5.72	5.10	114	102	78.0-123			11.5	20
Trichloroethene	5.00	5.75	5.61	115	112	76.0-126			2.46	20
Trichlorofluoromethane	5.00	5.50	5.31	110	106	61.0-142			3.52	20
1,2,3-Trichloropropane	5.00	4.50	4.48	90.0	89.6	67.0-129			0.445	20
1,2,3-Trimethylbenzene	5.00	4.21	4.47	84.2	89.4	74.0-124			5.99	20
1,2,4-Trimethylbenzene	5.00	4.75	4.56	95.0	91.2	70.0-126			4.08	20
1,3,5-Trimethylbenzene	5.00	4.64	4.43	92.8	88.6	73.0-127			4.63	20
Vinyl acetate	25.0	27.7	25.9	111	104	43.0-159			6.72	20
Vinyl chloride	5.00	5.23	5.06	105	101	63.0-134			3.30	20
Xylenes, Total	15.0	14.9	14.7	99.3	98.0	72.0-127			1.35	20
(S) Toluene-d8				*95.4*	*93.8*	*75.0-131*				
(S) 4-Bromofluorobenzene				*106*	*98.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*113*	*117*	*70.0-130*				

Method Blank (MB)

(MB) R3724543-3 10/26/21 03:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Acetone	U		0.548	1.00
Acrylonitrile	U		0.0760	0.500
Benzene	U		0.0160	0.0400
Bromobenzene	U		0.0420	0.500
Bromodichloromethane	U		0.0315	0.100
Bromochloromethane	U		0.0452	0.200
Bromoform	U		0.239	1.00
Bromomethane	U		0.148	0.500
n-Butylbenzene	U		0.153	0.500
sec-Butylbenzene	U		0.101	0.500
tert-Butylbenzene	U		0.0620	0.200
Carbon disulfide	U		0.162	0.500
Carbon tetrachloride	U		0.0432	0.200
Chlorobenzene	U		0.0229	0.100
Chlorodibromomethane	U		0.0180	0.100
Chloroethane	U		0.0432	0.200
Chloroform	U		0.0166	0.100
Chloromethane	U		0.0556	0.500
2-Chlorotoluene	U		0.0368	0.100
4-Chlorotoluene	U		0.0452	0.200
1,2-Dibromo-3-Chloropropane	U		0.204	1.00
1,2-Dibromoethane	U		0.0210	0.100
Dibromomethane	U		0.0400	0.200
1,2-Dichlorobenzene	U		0.0580	0.200
1,3-Dichlorobenzene	U		0.0680	0.200
1,4-Dichlorobenzene	U		0.0788	0.200
trans-1,4-Dichloro-2-butene	U		0.0560	0.200
Dichlorodifluoromethane	U		0.0327	0.100
1,1-Dichloroethane	U		0.0230	0.100
1,2-Dichloroethane	U		0.0190	0.100
1,1-Dichloroethene	U		0.0200	0.100
cis-1,2-Dichloroethene	U		0.0276	0.100
trans-1,2-Dichloroethene	U		0.0572	0.200
1,2-Dichloropropane	U		0.0508	0.200
1,1-Dichloropropene	U		0.0280	0.100
1,3-Dichloropropane	U		0.0700	0.200
cis-1,3-Dichloropropene	U		0.0271	0.100
trans-1,3-Dichloropropene	U		0.0612	0.200
2,2-Dichloropropane	U		0.0317	0.100
Di-isopropyl ether	U		0.0140	0.0400

Method Blank (MB)

(MB) R3724543-3 10/26/21 03:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Ethylbenzene	U		0.0212	0.100
Hexachloro-1,3-butadiene	U		0.508	1.00
n-Hexane	U		0.0424	0.200
2-Hexanone	U		0.400	1.00
Iodomethane	U		0.242	0.500
Isopropylbenzene	U		0.0345	0.100
p-Isopropyltoluene	U		0.0932	0.200
2-Butanone (MEK)	U		0.500	1.00
Methylene Chloride	U		0.265	1.00
4-Methyl-2-pentanone (MIBK)	U		0.400	1.00
Methyl tert-butyl ether	U		0.0118	0.0400
Naphthalene	U		0.124	0.500
n-Propylbenzene	U		0.0472	0.200
Styrene	U		0.109	0.500
1,1,1,2-Tetrachloroethane	U		0.0200	0.100
1,1,2,2-Tetrachloroethane	U		0.0156	0.100
Tetrachloroethene	U		0.0280	0.100
Toluene	U		0.0500	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0270	0.100
1,2,3-Trichlorobenzene	U		0.0250	0.500
1,2,4-Trichlorobenzene	U		0.193	0.500
1,1,1-Trichloroethane	U		0.0110	0.100
1,1,2-Trichloroethane	U		0.0353	0.100
Trichloroethene	U		0.0160	0.0400
Trichlorofluoromethane	U		0.0200	0.100
1,2,3-Trichloropropane	U		0.204	0.500
1,2,3-Trimethylbenzene	U		0.0460	0.200
1,2,4-Trimethylbenzene	U		0.0464	0.200
1,3,5-Trimethylbenzene	U		0.0432	0.200
Vinyl acetate	U		0.141	0.500
Vinyl chloride	U		0.0273	0.100
Xylenes, Total	U		0.191	0.260
(S) Toluene-d8	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3724543-1 10/26/21 02:04 • (LCSD) R3724543-2 10/26/21 02:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	25.0	39.9	39.5	160	158	10.0-160			1.01	31
Acrylonitrile	25.0	36.0	36.6	144	146	45.0-153			1.65	22
Benzene	5.00	4.98	5.03	99.6	101	70.0-123			0.999	20
Bromobenzene	5.00	5.08	5.30	102	106	73.0-121			4.24	20
Bromodichloromethane	5.00	5.20	5.38	104	108	73.0-121			3.40	20
Bromochloromethane	5.00	5.32	5.25	106	105	77.0-128			1.32	20
Bromoform	5.00	4.55	4.79	91.0	95.8	64.0-132			5.14	20
Bromomethane	5.00	3.78	3.84	75.6	76.8	56.0-147			1.57	20
n-Butylbenzene	5.00	4.31	4.31	86.2	86.2	68.0-135			0.000	20
sec-Butylbenzene	5.00	4.53	4.63	90.6	92.6	74.0-130			2.18	20
tert-Butylbenzene	5.00	4.70	4.97	94.0	99.4	75.0-127			5.58	20
Carbon disulfide	5.00	4.76	4.83	95.2	96.6	56.0-133			1.46	20
Carbon tetrachloride	5.00	5.19	5.07	104	101	66.0-128			2.34	20
Chlorobenzene	5.00	4.77	4.85	95.4	97.0	76.0-128			1.66	20
Chlorodibromomethane	5.00	4.75	4.76	95.0	95.2	74.0-127			0.210	20
Chloroethane	5.00	4.40	4.73	88.0	94.6	61.0-134			7.23	20
Chloroform	5.00	5.61	5.66	112	113	72.0-123			0.887	20
Chloromethane	5.00	4.77	4.87	95.4	97.4	51.0-138			2.07	20
2-Chlorotoluene	5.00	4.79	5.01	95.8	100	75.0-124			4.49	20
4-Chlorotoluene	5.00	5.11	5.41	102	108	75.0-124			5.70	20
1,2-Dibromo-3-Chloropropane	5.00	4.81	4.92	96.2	98.4	59.0-130			2.26	20
1,2-Dibromoethane	5.00	4.74	4.61	94.8	92.2	74.0-128			2.78	20
Dibromomethane	5.00	4.89	4.96	97.8	99.2	75.0-122			1.42	20
1,2-Dichlorobenzene	5.00	4.93	5.16	98.6	103	76.0-124			4.56	20
1,3-Dichlorobenzene	5.00	4.90	4.93	98.0	98.6	76.0-125			0.610	20
1,4-Dichlorobenzene	5.00	4.60	4.81	92.0	96.2	77.0-121			4.46	20
trans-1,4-Dichloro-2-butene	5.00	5.76	5.94	115	119	45.0-143			3.08	20
Dichlorodifluoromethane	5.00	5.01	5.11	100	102	43.0-156			1.98	20
1,1-Dichloroethane	5.00	5.07	5.28	101	106	70.0-127			4.06	20
1,2-Dichloroethane	5.00	5.60	5.46	112	109	65.0-131			2.53	20
1,1-Dichloroethene	5.00	5.18	5.24	104	105	65.0-131			1.15	20
cis-1,2-Dichloroethene	5.00	4.94	4.88	98.8	97.6	73.0-125			1.22	20
trans-1,2-Dichloroethene	5.00	4.89	4.99	97.8	99.8	71.0-125			2.02	20
1,2-Dichloropropane	5.00	5.37	5.42	107	108	74.0-125			0.927	20
1,1-Dichloropropene	5.00	5.22	5.32	104	106	73.0-125			1.90	20
1,3-Dichloropropane	5.00	4.92	5.07	98.4	101	80.0-125			3.00	20
cis-1,3-Dichloropropene	5.00	5.17	5.28	103	106	76.0-127			2.11	20
trans-1,3-Dichloropropene	5.00	4.81	5.02	96.2	100	73.0-127			4.27	20
2,2-Dichloropropane	5.00	5.04	5.04	101	101	59.0-135			0.000	20
Di-isopropyl ether	5.00	4.96	4.94	99.2	98.8	60.0-136			0.404	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3724543-1 10/26/21 02:04 • (LCSD) R3724543-2 10/26/21 02:23

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Ethylbenzene	5.00	4.59	4.66	91.8	93.2	74.0-126			1.51	20
Hexachloro-1,3-butadiene	5.00	3.20	3.46	64.0	69.2	57.0-150			7.81	20
n-Hexane	5.00	4.55	4.67	91.0	93.4	55.0-137			2.60	20
2-Hexanone	25.0	23.4	24.0	93.6	96.0	54.0-147			2.53	20
Iodomethane	25.0	24.9	24.7	99.6	98.8	74.0-134			0.806	20
Isopropylbenzene	5.00	4.53	4.41	90.6	88.2	72.0-127			2.68	20
p-Isopropyltoluene	5.00	4.17	4.39	83.4	87.8	72.0-133			5.14	20
2-Butanone (MEK)	25.0	30.5	30.7	122	123	30.0-160			0.654	24
Methylene Chloride	5.00	5.29	5.35	106	107	68.0-123			1.13	20
4-Methyl-2-pentanone (MIBK)	25.0	26.0	26.6	104	106	56.0-143			2.28	20
Methyl tert-butyl ether	5.00	5.37	5.42	107	108	66.0-132			0.927	20
Naphthalene	5.00	3.24	3.38	64.8	67.6	59.0-130			4.23	20
n-Propylbenzene	5.00	5.11	5.33	102	107	74.0-126			4.21	20
Styrene	5.00	4.47	4.42	89.4	88.4	72.0-127			1.12	20
1,1,1,2-Tetrachloroethane	5.00	4.52	4.51	90.4	90.2	74.0-129			0.221	20
1,1,2,2-Tetrachloroethane	5.00	4.81	5.35	96.2	107	68.0-128			10.6	20
Tetrachloroethene	5.00	5.00	5.06	100	101	70.0-136			1.19	20
Toluene	5.00	4.78	5.06	95.6	101	75.0-121			5.69	20
1,1,2-Trichlorotrifluoroethane	5.00	4.86	4.35	97.2	87.0	61.0-139			11.1	20
1,2,3-Trichlorobenzene	5.00	3.10	3.24	62.0	64.8	59.0-139			4.42	20
1,2,4-Trichlorobenzene	5.00	3.26	3.49	65.2	69.8	62.0-137			6.81	20
1,1,1-Trichloroethane	5.00	5.27	5.59	105	112	69.0-126			5.89	20
1,1,2-Trichloroethane	5.00	4.72	4.89	94.4	97.8	78.0-123			3.54	20
Trichloroethene	5.00	5.43	5.28	109	106	76.0-126			2.80	20
Trichlorofluoromethane	5.00	4.31	4.47	86.2	89.4	61.0-142			3.64	20
1,2,3-Trichloropropane	5.00	5.12	5.45	102	109	67.0-129			6.24	20
1,2,3-Trimethylbenzene	5.00	4.52	4.73	90.4	94.6	74.0-124			4.54	20
1,2,4-Trimethylbenzene	5.00	4.86	4.95	97.2	99.0	70.0-126			1.83	20
1,3,5-Trimethylbenzene	5.00	4.67	4.83	93.4	96.6	73.0-127			3.37	20
Vinyl acetate	25.0	21.0	31.8	84.0	127	43.0-159		J3	40.9	20
Vinyl chloride	5.00	4.68	4.54	93.6	90.8	63.0-134			3.04	20
Xylenes, Total	15.0	14.2	14.2	94.7	94.7	72.0-127			0.000	20
(S) Toluene-d8				*101*	*103*	*75.0-131*				
(S) 4-Bromofluorobenzene				*101*	*95.4*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*110*	*109*	*70.0-130*				

Method Blank (MB)

(MB) R3723968-2 10/26/21 05:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Acrylonitrile	U		0.00361	0.0125
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromoform	U		0.00117	0.0250
Bromomethane	U		0.00197	0.0125
n-Butylbenzene	U		0.00525	0.0125
sec-Butylbenzene	U		0.00288	0.0125
tert-Butylbenzene	U		0.00195	0.00500
Carbon tetrachloride	U		0.000898	0.00500
Chlorobenzene	U		0.000210	0.00250
Chlorodibromomethane	U		0.000612	0.00250
Chloroethane	U		0.00170	0.00500
Chloroform	U		0.00103	0.00250
Chloromethane	U		0.00435	0.0125
2-Chlorotoluene	U		0.000865	0.00250
4-Chlorotoluene	U		0.000450	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00390	0.0250
1,2-Dibromoethane	U		0.000648	0.00250
Dibromomethane	U		0.000750	0.00500
1,2-Dichlorobenzene	U		0.000425	0.00500
1,3-Dichlorobenzene	U		0.000600	0.00500
1,4-Dichlorobenzene	U		0.000700	0.00500
Dichlorodifluoromethane	U		0.00161	0.00250
1,1-Dichloroethane	U		0.000491	0.00250
1,2-Dichloroethane	U		0.000649	0.00250
1,1-Dichloroethene	U		0.000606	0.00250
cis-1,2-Dichloroethene	U		0.000734	0.00250
trans-1,2-Dichloroethene	U		0.00104	0.00500
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	U		0.000501	0.00500
cis-1,3-Dichloropropene	U		0.000757	0.00250
trans-1,3-Dichloropropene	U		0.00114	0.00500
2,2-Dichloropropane	U		0.00138	0.00250
Di-isopropyl ether	U		0.000410	0.00100
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
Isopropylbenzene	U		0.000425	0.00250

Method Blank (MB)

(MB) R3723968-2 10/26/21 05:37

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00255	0.00500
2-Butanone (MEK)	0.0696	J	0.0635	0.100
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.00228	0.0250
Methyl tert-butyl ether	U		0.000350	0.00100
Naphthalene	U		0.00488	0.0125
n-Propylbenzene	U		0.000950	0.00500
Styrene	U		0.000229	0.0125
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000754	0.00250
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,3-Trimethylbenzene	U		0.00158	0.00500
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*124*			*75.0-131*
(S) 4-Bromofluorobenzene	*92.8*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3723968-1 10/26/21 04:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.526	84.2	10.0-160	
Acrylonitrile	0.625	0.563	90.1	45.0-153	
Benzene	0.125	0.105	84.0	70.0-123	
Bromobenzene	0.125	0.123	98.4	73.0-121	
Bromodichloromethane	0.125	0.109	87.2	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3723968-1 10/26/21 04:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.123	98.4	64.0-132	
Bromomethane	0.125	0.102	81.6	56.0-147	
n-Butylbenzene	0.125	0.121	96.8	68.0-135	
sec-Butylbenzene	0.125	0.126	101	74.0-130	
tert-Butylbenzene	0.125	0.129	103	75.0-127	
Carbon tetrachloride	0.125	0.101	80.8	66.0-128	
Chlorobenzene	0.125	0.118	94.4	76.0-128	
Chlorodibromomethane	0.125	0.125	100	74.0-127	
Chloroethane	0.125	0.106	84.8	61.0-134	
Chloroform	0.125	0.106	84.8	72.0-123	
Chloromethane	0.125	0.0886	70.9	51.0-138	
2-Chlorotoluene	0.125	0.132	106	75.0-124	
4-Chlorotoluene	0.125	0.132	106	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.132	106	59.0-130	
1,2-Dibromoethane	0.125	0.125	100	74.0-128	
Dibromomethane	0.125	0.108	86.4	75.0-122	
1,2-Dichlorobenzene	0.125	0.130	104	76.0-124	
1,3-Dichlorobenzene	0.125	0.126	101	76.0-125	
1,4-Dichlorobenzene	0.125	0.128	102	77.0-121	
Dichlorodifluoromethane	0.125	0.116	92.8	43.0-156	
1,1-Dichloroethane	0.125	0.104	83.2	70.0-127	
1,2-Dichloroethane	0.125	0.113	90.4	65.0-131	
1,1-Dichloroethene	0.125	0.0938	75.0	65.0-131	
cis-1,2-Dichloroethene	0.125	0.106	84.8	73.0-125	
trans-1,2-Dichloroethene	0.125	0.104	83.2	71.0-125	
1,2-Dichloropropane	0.125	0.110	88.0	74.0-125	
1,1-Dichloropropene	0.125	0.105	84.0	73.0-125	
1,3-Dichloropropane	0.125	0.120	96.0	80.0-125	
cis-1,3-Dichloropropene	0.125	0.114	91.2	76.0-127	
trans-1,3-Dichloropropene	0.125	0.128	102	73.0-127	
2,2-Dichloropropane	0.125	0.0853	68.2	59.0-135	
Di-isopropyl ether	0.125	0.101	80.8	60.0-136	
Ethylbenzene	0.125	0.118	94.4	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.139	111	57.0-150	
Isopropylbenzene	0.125	0.121	96.8	72.0-127	
p-Isopropyltoluene	0.125	0.130	104	72.0-133	
2-Butanone (MEK)	0.625	0.605	96.8	30.0-160	
Methylene Chloride	0.125	0.102	81.6	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.645	103	56.0-143	
Methyl tert-butyl ether	0.125	0.105	84.0	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3723968-1 10/26/21 04:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.119	95.2	59.0-130	
n-Propylbenzene	0.125	0.124	99.2	74.0-126	
Styrene	0.125	0.130	104	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.118	94.4	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.109	87.2	68.0-128	
Tetrachloroethene	0.125	0.117	93.6	70.0-136	
Toluene	0.125	0.118	94.4	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.0900	72.0	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.138	110	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.133	106	62.0-137	
1,1,1-Trichloroethane	0.125	0.103	82.4	69.0-126	
1,1,2-Trichloroethane	0.125	0.121	96.8	78.0-123	
Trichloroethene	0.125	0.110	88.0	76.0-126	
Trichlorofluoromethane	0.125	0.0860	68.8	61.0-142	
1,2,3-Trichloropropane	0.125	0.123	98.4	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.126	101	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.129	103	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.129	103	73.0-127	
Vinyl chloride	0.125	0.0956	76.5	63.0-134	
Xylenes, Total	0.375	0.369	98.4	72.0-127	
(S) Toluene-d8			*112*	*75.0-131*	
(S) 4-Bromofluorobenzene			*98.0*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*106*	*70.0-130*	

L1421071-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421071-01 10/26/21 13:18 • (MS) R3723968-3 10/26/21 16:32 • (MSD) R3723968-4 10/26/21 16:51

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.755	U	0.165	0.144	21.8	19.0	1	10.0-160			13.4	40
Acrylonitrile	0.755	U	0.525	0.473	69.5	62.6	1	10.0-160			10.4	40
Benzene	0.152	0.00527	0.129	0.0680	81.7	41.4	1	10.0-149		J3	62.0	37
Bromobenzene	0.152	U	0.176	0.126	116	82.9	1	10.0-156			33.5	38
Bromodichloromethane	0.152	U	0.125	0.0864	82.7	57.0	1	10.0-143			36.8	37
Bromoform	0.152	U	0.139	0.123	91.5	81.0	1	10.0-146			12.1	36
Bromomethane	0.152	U	0.0890	0.0429	58.7	28.3	1	10.0-149		J3	69.9	38
n-Butylbenzene	0.152	0.00877	0.161	0.0793	100	46.5	1	10.0-160		J3	67.8	40
sec-Butylbenzene	0.152	U	0.163	0.0680	108	44.9	1	10.0-159		J3	82.4	39
tert-Butylbenzene	0.152	U	0.168	0.0736	111	48.5	1	10.0-156		J3	78.4	39

L1421071-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421071-01 10/26/21 13:18 • (MS) R3723968-3 10/26/21 16:32 • (MSD) R3723968-4 10/26/21 16:51

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.152	U	0.111	0.0350	73.4	23.1	1	10.0-145		J3	104	37
Chlorobenzene	0.152	U	0.140	0.0857	92.3	56.5	1	10.0-152		J3	48.1	39
Chlorodibromomethane	0.152	U	0.152	0.121	100	79.6	1	10.0-146			22.8	37
Chloroethane	0.152	U	0.0745	0.0349	49.1	23.0	1	10.0-146		J3	72.5	40
Chloroform	0.152	U	0.120	0.0683	79.1	45.0	1	10.0-146		J3	54.8	37
Chloromethane	0.152	U	0.105	0.0439	69.5	29.0	1	10.0-159		J3	82.3	37
2-Chlorotoluene	0.152	U	0.172	0.0952	114	62.8	1	10.0-159		J3	57.6	38
4-Chlorotoluene	0.152	U	0.156	0.109	103	72.1	1	10.0-155			34.8	39
1,2-Dibromo-3-Chloropropane	0.152	U	0.154	0.143	102	94.0	1	10.0-151			7.86	39
1,2-Dibromoethane	0.152	U	0.163	0.141	108	93.2	1	10.0-148			14.5	34
Dibromomethane	0.152	U	0.130	0.102	85.5	67.1	1	10.0-147			24.1	35
1,2-Dichlorobenzene	0.152	U	0.159	0.115	105	75.8	1	10.0-155			32.4	37
1,3-Dichlorobenzene	0.152	U	0.156	0.102	103	67.3	1	10.0-153		J3	41.6	38
1,4-Dichlorobenzene	0.152	U	0.158	0.108	104	70.9	1	10.0-151			38.0	38
Dichlorodifluoromethane	0.152	U	0.132	0.0271	87.2	17.9	1	10.0-160		J3	132	35
1,1-Dichloroethane	0.152	U	0.118	0.0609	77.9	40.2	1	10.0-147		J3	64.0	37
1,2-Dichloroethane	0.152	U	0.135	0.102	88.9	67.3	1	10.0-148			27.7	35
1,1-Dichloroethene	0.152	U	0.0982	0.0333	64.8	22.0	1	10.0-155		J3	98.7	37
cis-1,2-Dichloroethene	0.152	U	0.121	0.0666	79.8	43.9	1	10.0-149		J3	58.0	37
trans-1,2-Dichloroethene	0.152	U	0.113	0.0508	74.3	33.5	1	10.0-150		J3	75.7	37
1,2-Dichloropropane	0.152	U	0.131	0.0828	86.3	54.6	1	10.0-148		J3	45.0	37
1,1-Dichloropropene	0.152	U	0.116	0.0409	76.6	27.0	1	10.0-153		J3	95.7	35
1,3-Dichloropropane	0.152	U	0.167	0.137	110	90.6	1	10.0-154			19.6	35
cis-1,3-Dichloropropene	0.152	U	0.140	0.0990	92.3	65.3	1	10.0-151			34.3	37
trans-1,3-Dichloropropene	0.152	U	0.172	0.140	114	92.3	1	10.0-148			20.7	37
2,2-Dichloropropane	0.152	U	0.0908	0.0319	59.9	21.0	1	10.0-138		J3	96.1	36
Di-isopropyl ether	0.152	U	0.126	0.0835	82.8	55.0	1	10.0-147		J3	40.3	36
Ethylbenzene	0.152	0.0172	0.165	0.0963	97.2	52.1	1	10.0-160		J3	52.4	38
Hexachloro-1,3-butadiene	0.152	U	0.189	0.0746	125	49.2	1	10.0-160		J3	86.8	40
Isopropylbenzene	0.152	0.00503	0.136	0.0641	86.4	39.0	1	10.0-155		J3	71.8	38
p-Isopropyltoluene	0.152	0.0152	0.190	0.0978	116	54.5	1	10.0-160		J3	64.3	40
2-Butanone (MEK)	0.755	U	0.695	0.584	91.9	77.4	1	10.0-160			17.2	40
Methylene Chloride	0.152	U	0.116	0.0310	76.8	20.4	1	10.0-141		J3	116	37
4-Methyl-2-pentanone (MIBK)	0.755	0.0174	0.864	0.851	112	110	1	10.0-160			1.51	35
Methyl tert-butyl ether	0.152	U	0.123	0.0965	80.9	63.7	1	11.0-147			23.8	35
Naphthalene	0.152	0.0577	0.272	0.246	141	124	1	10.0-160			10.0	36
n-Propylbenzene	0.152	0.00566	0.174	0.0832	111	51.1	1	10.0-158		J3	70.4	38
Styrene	0.152	U	0.146	0.0897	96.6	59.1	1	10.0-160		J3	48.1	40
1,1,1,2-Tetrachloroethane	0.152	U	0.141	0.0951	93.2	62.7	1	10.0-149			39.0	39

L1421071-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421071-01 10/26/21 13:18 • (MS) R3723968-3 10/26/21 16:32 • (MSD) R3723968-4 10/26/21 16:51

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,2,2-Tetrachloroethane	0.152	U	0.176	0.159	116	105	1	10.0-160			10.0	35
Tetrachloroethene	0.152	U	0.137	0.0559	90.6	36.8	1	10.0-156		J3	84.4	39
Toluene	0.152	0.0610	0.223	0.153	107	60.6	1	10.0-156			37.2	38
1,1,2-Trichlorotrifluoroethane	0.152	U	0.107	0.0245	70.5	16.2	1	10.0-160		J3	125	36
1,2,3-Trichlorobenzene	0.152	U	0.215	0.159	142	105	1	10.0-160			29.8	40
1,2,4-Trichlorobenzene	0.152	U	0.172	0.120	114	79.1	1	10.0-160			35.8	40
1,1,1-Trichloroethane	0.152	U	0.113	0.0362	74.5	23.8	1	10.0-144		J3	103	35
1,1,2-Trichloroethane	0.152	U	0.170	0.144	112	94.9	1	10.0-160			16.5	35
Trichloroethene	0.152	U	0.117	0.0534	77.1	35.2	1	10.0-156		J3	74.6	38
Trichlorofluoromethane	0.152	U	0.0536	0.0175	35.4	11.5	1	10.0-160		J3	102	40
1,2,3-Trichloropropane	0.152	U	0.188	0.179	124	118	1	10.0-156			4.95	35
1,2,3-Trimethylbenzene	0.152	0.0426	0.224	0.165	120	80.4	1	10.0-160			30.7	36
1,2,4-Trimethylbenzene	0.152	0.0485	0.241	0.167	127	78.3	1	10.0-160		J3	36.2	36
1,3,5-Trimethylbenzene	0.152	0.0122	0.185	0.103	114	59.8	1	10.0-160		J3	57.2	38
Vinyl chloride	0.152	U	0.116	0.0376	76.7	24.8	1	10.0-160		J3	102	37
Xylenes, Total	0.452	0.112	0.591	0.386	106	60.7	1	10.0-160		J3	41.9	38
(S) Toluene-d8					*123*	*124*		*75.0-131*				
(S) 4-Bromofluorobenzene					*89.4*	*87.8*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*106*	*101*		*70.0-130*				

Method Blank (MB)

(MB) R3722694-1 10/28/21 10:38

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Diesel Range Organics (DRO)	U		1.33	4.00
Residual Range Organics (RRO)	U		3.33	10.0
(S) o-Terphenyl	*52.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3722694-2 10/28/21 10:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Diesel Range Organics (DRO)	50.0	34.4	68.8	50.0-150	
(S) o-Terphenyl			*51.8*	*18.0-148*	

L1421083-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421083-23 10/28/21 12:40 • (MS) R3722694-3 10/28/21 12:54 • (MSD) R3722694-4 10/28/21 13:07

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	54.9	358	276	534	0.000	320	1	50.0-150	V	E J3 V	63.9	20
(S) o-Terphenyl					*77.8*	*69.4*		*18.0-148*				

Method Blank (MB)

(MB) R3723840-1 10/30/21 00:02

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*102*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3723840-2 10/30/21 00:22 • (LCSD) R3723840-3 10/30/21 00:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1620	1520	108	101	50.0-150			6.37	20
(S) o-Terphenyl				*69.0*	*85.0*	*52.0-156*				

Method Blank (MB)

(MB) R3723124-1 10/29/21 08:00

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Diesel Range Organics (DRO)	U		66.7	200
Residual Range Organics (RRO)	U		83.3	250
(S) o-Terphenyl	*108*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3723124-2 10/29/21 08:21 • (LCSD) R3723124-3 10/29/21 08:42

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Diesel Range Organics (DRO)	1500	1710	1720	114	115	50.0-150			0.583	20
(S) o-Terphenyl				*135*	*138*	*52.0-156*				

Method Blank (MB)

(MB) R3720580-1 10/24/21 04:44

Analyte	MB Result	MB Qualifier	MB MDL	MB RDL
	ug/l		ug/l	ug/l
PCB 1260	U		0.173	0.500
PCB 1016	U		0.270	0.500
PCB 1221	U		0.270	0.500
PCB 1232	U		0.270	0.500
PCB 1242	U		0.270	0.500
PCB 1248	U		0.173	0.500
PCB 1254	U		0.173	0.500
(S) Decachlorobiphenyl	*62.4*			*10.0-128*
(S) Tetrachloro-m-xylene	*80.3*			*10.0-127*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3720580-2 10/24/21 04:53 • (LCSD) R3720580-3 10/24/21 05:02

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ug/l	ug/l	ug/l	%	%	%			%	%
PCB 1260	2.50	2.17	2.07	86.8	82.8	42.0-131			4.72	25
PCB 1016	2.50	3.22	2.92	129	117	36.0-135	P		9.77	29
(S) Decachlorobiphenyl				*63.8*	*59.3*	*10.0-128*				
(S) Tetrachloro-m-xylene				*82.1*	*80.4*	*10.0-127*				

Method Blank (MB)

(MB) R3722529-1 10/27/21 21:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
PCB 1016	U		0.0118	0.0340
PCB 1221	U		0.0118	0.0340
PCB 1232	U		0.0118	0.0340
PCB 1242	U		0.0118	0.0340
PCB 1248	U		0.00738	0.0170
PCB 1254	U		0.00738	0.0170
PCB 1260	U		0.00738	0.0170
(S) Decachlorobiphenyl	*66.4*			*10.0-135*
(S) Tetrachloro-m-xylene	*80.9*			*10.0-139*

Laboratory Control Sample (LCS)

(LCS) R3722529-2 10/27/21 21:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
PCB 1260	0.167	0.164	98.2	37.0-145	
PCB 1016	0.167	0.163	97.6	36.0-141	
(S) Decachlorobiphenyl			*78.2*	*10.0-135*	
(S) Tetrachloro-m-xylene			*93.5*	*10.0-139*	

L1421240-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421240-07 10/28/21 00:01 • (MS) R3722529-3 10/28/21 00:10 • (MSD) R3722529-4 10/28/21 00:18

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
PCB 1260	0.167	U	0.261	0.316	156	189	1	10.0-160	P	J5	19.1	38
PCB 1016	0.167	U	5.50	2.80	3290	1680	1	10.0-160	J5 P	J3 J5 P	65.1	37
(S) Decachlorobiphenyl					*68.5*	*73.7*		*10.0-135*				
(S) Tetrachloro-m-xylene					*81.1*	*87.8*		*10.0-139*				

Method Blank (MB)

(MB) R3721626-3 10/26/21 08:20

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Anthracene	U		0.0190	0.0500
Acenaphthene	U		0.0190	0.0500
Acenaphthylene	U		0.0171	0.0500
Benzo(a)anthracene	U		0.0203	0.0500
Benzo(a)pyrene	U		0.0184	0.0500
Benzo(b)fluoranthene	U		0.0168	0.0500
Benzo(g,h,i)perylene	U		0.0184	0.0500
Benzo(k)fluoranthene	U		0.0202	0.0500
Chrysene	U		0.0179	0.0500
Dibenz(a,h)anthracene	U		0.0160	0.0500
Fluoranthene	U		0.0270	0.100
Fluorene	U		0.0169	0.0500
Indeno(1,2,3-cd)pyrene	U		0.0158	0.0500
Naphthalene	U		0.0917	0.250
Phenanthrene	U		0.0180	0.0500
Pyrene	U		0.0169	0.0500
1-Methylnaphthalene	U		0.0687	0.250
2-Methylnaphthalene	U		0.0674	0.250
2-Chloronaphthalene	U		0.0682	0.250
(S) Nitrobenzene-d5	*73.0*			*31.0-160*
(S) 2-Fluorobiphenyl	*108*			*48.0-148*
(S) p-Terphenyl-d14	*109*			*37.0-146*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3721626-1 10/26/21 07:44 • (LCSD) R3721626-2 10/26/21 08:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	2.09	2.11	104	105	67.0-150			0.952	20
Acenaphthene	2.00	1.98	2.07	99.0	104	65.0-138			4.44	20
Acenaphthylene	2.00	2.14	2.23	107	111	66.0-140			4.12	20
Benzo(a)anthracene	2.00	1.92	1.76	96.0	88.0	61.0-140			8.70	20
Benzo(a)pyrene	2.00	1.80	1.51	90.0	75.5	60.0-143			17.5	20
Benzo(b)fluoranthene	2.00	1.76	1.55	88.0	77.5	58.0-141			12.7	20
Benzo(g,h,i)perylene	2.00	1.65	1.31	82.5	65.5	52.0-153		J3	23.0	20
Benzo(k)fluoranthene	2.00	1.76	1.43	88.0	71.5	58.0-148		J3	20.7	20
Chrysene	2.00	1.91	1.70	95.5	85.0	64.0-144			11.6	20
Dibenz(a,h)anthracene	2.00	1.68	1.33	84.0	66.5	52.0-155		J3	23.3	20
Fluoranthene	2.00	2.20	2.17	110	108	69.0-153			1.37	20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3721626-1 10/26/21 07:44 • (LCSD) R3721626-2 10/26/21 08:02

Analyte	Spike Amount ug/l	LCS Result ug/l	LCSD Result ug/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluorene	2.00	2.12	2.26	106	113	64.0-136			6.39	20
Indeno(1,2,3-cd)pyrene	2.00	1.69	1.36	84.5	68.0	54.0-153		J3	21.6	20
Naphthalene	2.00	1.95	2.07	97.5	104	61.0-137			5.97	20
Phenanthrene	2.00	2.06	2.08	103	104	62.0-137			0.966	20
Pyrene	2.00	1.88	1.86	94.0	93.0	60.0-142			1.07	20
1-Methylnaphthalene	2.00	2.18	2.27	109	114	66.0-142			4.04	20
2-Methylnaphthalene	2.00	2.00	2.18	100	109	62.0-136			8.61	20
2-Chloronaphthalene	2.00	1.93	2.07	96.5	104	64.0-140			7.00	20
(S) Nitrobenzene-d5				*45.5*	*72.0*	*31.0-160*				
(S) 2-Fluorobiphenyl				*102*	*106*	*48.0-148*				
(S) p-Terphenyl-d14				*107*	*93.0*	*37.0-146*				

L1420670-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1420670-01 10/26/21 15:27 • (MS) R3721626-4 10/26/21 15:45 • (MSD) R3721626-5 10/26/21 16:03

Analyte	Spike Amount ug/l	Original Result ug/l	MS Result ug/l	MSD Result ug/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	2.00	U	2.09	2.08	104	104	1	56.0-156			0.480	20
Acenaphthene	2.00	U	2.03	1.95	102	97.5	1	44.0-153			4.02	20
Acenaphthylene	2.00	U	2.19	2.11	109	105	1	53.0-150			3.72	20
Benzo(a)anthracene	2.00	U	1.91	1.99	95.5	99.5	1	47.0-151			4.10	20
Benzo(a)pyrene	2.00	U	1.73	1.84	86.5	92.0	1	45.0-146			6.16	20
Benzo(b)fluoranthene	2.00	U	1.69	1.76	84.5	88.0	1	43.0-142			4.06	20
Benzo(g,h,i)perylene	2.00	U	1.60	1.76	80.0	88.0	1	40.0-147			9.52	20
Benzo(k)fluoranthene	2.00	U	1.73	1.83	86.5	91.5	1	43.0-148			5.62	21
Chrysene	2.00	U	1.89	1.98	94.5	99.0	1	50.0-148			4.65	20
Dibenz(a,h)anthracene	2.00	U	1.60	1.74	80.0	87.0	1	37.0-151			8.38	20
Fluoranthene	2.00	U	2.20	2.22	110	111	1	56.0-157			0.905	20
Fluorene	2.00	U	2.14	2.12	107	106	1	48.0-148			0.939	20
Indeno(1,2,3-cd)pyrene	2.00	U	1.61	1.71	80.5	85.5	1	41.0-148			6.02	20
Naphthalene	2.00	U	1.99	1.94	99.5	97.0	1	10.0-160			2.54	20
Phenanthrene	2.00	U	2.02	1.97	101	98.5	1	47.0-147			2.51	20
Pyrene	2.00	U	1.86	1.89	93.0	94.5	1	51.0-148			1.60	20
1-Methylnaphthalene	2.00	U	2.19	2.17	109	108	1	21.0-160			0.917	20
2-Methylnaphthalene	2.00	U	2.09	2.06	104	103	1	31.0-160			1.45	20
2-Chloronaphthalene	2.00	U	1.97	1.93	98.5	96.5	1	52.0-148			2.05	20
(S) Nitrobenzene-d5					*69.0*	*69.5*		*31.0-160*				
(S) 2-Fluorobiphenyl					*103*	*99.0*		*48.0-148*				
(S) p-Terphenyl-d14					*103*	*110*		*37.0-146*				

Method Blank (MB)

(MB) R3722772-2 10/28/21 13:05

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	*91.6*			*14.0-149*
(S) 2-Fluorobiphenyl	*92.1*			*34.0-125*
(S) p-Terphenyl-d14	*106*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3722772-1 10/28/21 12:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0628	78.5	50.0-126	
Acenaphthene	0.0800	0.0619	77.4	50.0-120	
Acenaphthylene	0.0800	0.0662	82.8	50.0-120	
Benzo(a)anthracene	0.0800	0.0627	78.4	45.0-120	
Benzo(a)pyrene	0.0800	0.0549	68.6	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0581	72.6	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0562	70.3	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0584	73.0	49.0-125	
Chrysene	0.0800	0.0593	74.1	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0604	75.5	47.0-125	
Fluoranthene	0.0800	0.0622	77.8	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3722772-1 10/28/21 12:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0623	77.9	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0621	77.6	46.0-125	
Naphthalene	0.0800	0.0562	70.3	50.0-120	
Phenanthrene	0.0800	0.0588	73.5	47.0-120	
Pyrene	0.0800	0.0565	70.6	43.0-123	
1-Methylnaphthalene	0.0800	0.0616	77.0	51.0-121	
2-Methylnaphthalene	0.0800	0.0605	75.6	50.0-120	
2-Chloronaphthalene	0.0800	0.0619	77.4	50.0-120	
(S) Nitrobenzene-d5			*91.7*	*14.0-149*	
(S) 2-Fluorobiphenyl			*90.0*	*34.0-125*	
(S) p-Terphenyl-d14			*98.3*	*23.0-120*	

L1421071-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1421071-07 10/28/21 14:16 • (MS) R3722772-3 10/28/21 14:34 • (MSD) R3722772-4 10/28/21 14:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.101	0.00634	0.0634	0.0704	56.4	63.3	1	10.0-145			10.4	30
Acenaphthene	0.101	0.00547	0.0653	0.0687	59.0	62.5	1	14.0-127			5.21	27
Acenaphthylene	0.101	U	0.0658	0.0712	64.9	70.3	1	21.0-124			7.92	25
Benzo(a)anthracene	0.101	0.0131	0.0691	0.0761	55.4	62.2	1	10.0-139			9.61	30
Benzo(a)pyrene	0.101	0.00779	0.0605	0.0686	52.0	60.0	1	10.0-141			12.6	31
Benzo(b)fluoranthene	0.101	0.0136	0.0651	0.0726	50.9	58.3	1	10.0-140			10.9	36
Benzo(g,h,i)perylene	0.101	0.00681	0.0569	0.0660	49.4	58.5	1	10.0-140			14.9	33
Benzo(k)fluoranthene	0.101	0.00293	0.0584	0.0662	54.8	62.4	1	10.0-137			12.4	31
Chrysene	0.101	0.0176	0.0757	0.0775	57.4	59.2	1	10.0-145			2.36	30
Dibenz(a,h)anthracene	0.101	U	0.0602	0.0690	59.4	68.1	1	10.0-132			13.6	31
Fluoranthene	0.101	0.0194	0.0709	0.0773	50.9	57.1	1	10.0-153			8.54	33
Fluorene	0.101	0.00830	0.0702	0.0743	61.1	65.2	1	11.0-130			5.72	29
Indeno(1,2,3-cd)pyrene	0.101	0.00655	0.0605	0.0704	53.2	63.0	1	10.0-137			15.2	32
Naphthalene	0.101	0.105	0.117	0.109	12.0	3.83	1	10.0-135		J6	7.31	27
Phenanthrene	0.101	0.0817	0.123	0.115	41.2	32.8	1	10.0-144			7.16	31
Pyrene	0.101	0.0203	0.0663	0.0721	45.4	51.1	1	10.0-148			8.40	35
1-Methylnaphthalene	0.101	0.138	0.169	0.143	30.6	5.10	1	10.0-142		J6	16.5	28
2-Methylnaphthalene	0.101	0.195	0.207	0.169	11.5	0.000	1	10.0-137		J6	19.9	28
2-Chloronaphthalene	0.101	U	0.0632	0.0673	62.4	66.5	1	29.0-120			6.34	24
(S) Nitrobenzene-d5					*76.9*	*83.6*		*14.0-149*				
(S) 2-Fluorobiphenyl					*74.2*	*82.3*		*34.0-125*				
(S) p-Terphenyl-d14					*84.6*	*93.4*		*23.0-120*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS58 • File ID: 1025_36-1

10/26/21 02:04

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1025_36-1	562626.50	266611.20	215894.90
Upper Limit		1125253	533222	431790
Lower Limit		281313	133306	107947
LCS R3724543-1 WG1763302 1x	1025_36LCS	562626.50	266611.20	215894.90
LCSD R3724543-2 WG1763302 1x	1025_37	555496	259893.60	194077.80
BLANK R3724543-3 WG1763302 1x	1025_40	501722.20	233107.60	192179.70
L1421071-17 WG1763302 1x	1025_41	491301.90	226919.70	175617

Instrument: VOCMS59 • File ID: 1022a_28-2

10/22/21 22:11

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1022a_28-2	621224.50	260979.50	256938.70
Upper Limit		1242449	521959	513877
Lower Limit		310612	130490	128469
LCS R3725266-1 WG1761975 1x	1022a_28LCS	621224.50	260979.50	256938.70
LCSD R3725266-2 WG1761975 1x	1022a_29	643400.80	293567.10	269930.60
BLANK R3725266-3 WG1761975 1x	1022a_32	591368	262465.70	258706.30
L1421071-11 WG1761975 1x	1022a_34	603030	260145	243021.20
L1421071-12 WG1761975 1x	1022a_48	469663	210950.80	207607.70
L1421071-13 WG1761975 1x	1022a_49	492868.20	230309.10	210181.70
L1421071-14 WG1761975 1x	1022a_50	528796.50	230604	201763.60
L1421071-15 WG1761975 1x	1022a_51	518008.20	215986.60	221914.60
L1421071-16 WG1761975 1x	1022a_52	507486.90	235047.50	227533.90

INTERNAL STANDARD SUMMARY

Instrument: VOCMS37 • File ID: 1026_03-1

10/26/21 04:38

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1026_03-1	860495.10	382052.90	309904.10
Upper Limit		1720990	764106	619808
Lower Limit		430248	191026	154952
LCS R3723968-1 WG1763431 1x	1026_03LCS	860495.10	382052.90	309904.10
BLANK R3723968-2 WG1763431 1x	1026_06	812733.30	312459.20	206230.20
L1421071-01 WG1763431 1x	1026_19	860818.50	337677.10	210887.70
L1421071-02 WG1763431 1x	1026_20	832543.60	329451.50	215750.70
L1421071-03 WG1763431 1.13x	1026_21	797457.40	309525.10	193666.80
L1421071-04 WG1763431 1x	1026_22	775602.50	310760.70	194935.10
L1421071-05 WG1763431 1x	1026_23	763778.50	302851.60	181612
L1421071-06 WG1763431 1x	1026_24	815103.20	325035	216296.70
L1421071-07 WG1763431 1.23x	1026_25	773452.80	300917.20	185085.10
L1421071-08 WG1763431 1x	1026_26	811834.80	317776	207038.30
L1421071-09 WG1763431 1x	1026_27	788402	311029.60	185621
L1421071-10 WG1763431 1x	1026_28	804028	318298	207684.70
MS R3723968-3 WG1763431 1x	1026_29	776145.10	310128.60	195823.40
MSD R3723968-4 WG1763431 1x	1026_30	804858.30	313181.30	191558.70

INTERNAL STANDARD SUMMARY

Instrument: SVGC30 • File ID: AVG

Sample ID	File ID	1-BROMO-2-DINITROBENZENE Response
Standard	AVG	1802134286
Upper Limit		2703201000
Lower Limit		901067000
BLANK R3720580-1 WG1761898 1x	1023_48	2088156000
LCS R3720580-2 WG1761898 1x	1023_49	2214956000
LCSD R3720580-3 WG1761898 1x	1023_50	2281437000
L1421071-14 WG1761898 1x	1023_60	2185046000
L1421071-16 WG1761898 1x	1023_68	2261502000

INTERNAL STANDARD SUMMARY

Instrument: SVGC29 • File ID: AVG

Sample ID	File ID	1-BROMO-2-DINITROBENZENE Response
Standard	AVG	914368714
Upper Limit		1371553000
Lower Limit		457184400
BLANK R3722529-1 WG1764102 1x	1027A_09	817581800
LCS R3722529-2 WG1764102 1x	1027A_10	817003500
L1421071-08 WG1764102 1x	1027A_14	855029500
L1421071-09 WG1764102 1x	1027A_15	886713300
L1421071-10 WG1764102 1x	1027A_16	849686700
MS R3722529-3 WG1764102 1x	1027A_28	856192300
MSD R3722529-4 WG1764102 1x	1027A_29	874249300

Instrument: BNAMS25 • File ID: 1028_03

10/28/21 11:35

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1028_03	114785	67203	124893	108646	107206
Upper Limit		229570	134406	249786	217292	214412
Lower Limit		57393	33602	62447	54323	53603
LCS R3722772-1 WG1764422 1x	1028_04	125170	71555	132127	116419	113271
BLANK R3722772-2 WG1764422 1x	1028_05	117354	69228	126651	109335	102486
L1421071-01 WG1764422 1x	1028_06	126827	75621	140387	122877	120091
L1421071-03 WG1764422 1x	1028_07	123867	72429	135177	119936	118022
L1421071-05 WG1764422 1x	1028_08	121350	72597	138301	120063	116959
L1421071-07 WG1764422 1x	1028_09	123423	74229	138401	120307	119457
MS R3722772-3 WG1764422 1x	1028_10	123596	72898	135149	118760	115543
MSD R3722772-4 WG1764422 1x	1028_11	120410	70287	132506	115561	110791
L1421071-09 WG1764422 1x	1028_12	125909	73501	135543	116029	103738

Instrument: BNAMS13 • File ID: 1026_03

10/26/21 06:39

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1026_03	49642	25766	43972	35702	28073
Upper Limit		99284	51532	87944	71404	56146
Lower Limit		24821	12883	21986	17851	14037
L1421071-16 WG1762605 1x	1026_27	45599	23076	38636	29288	22002

Instrument: BNAMS28 • File ID: 1026_03

10/26/21 06:33

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1026_03	8008	5602	12673	13854	14709
Upper Limit		16016	11204	25346	27708	29418
Lower Limit		4004	2801	6337	6927	7355
LCS R3721626-1 WG1762605 1x	1026_07	6772	4771	10664	11652	12002
LCSD R3721626-2 WG1762605 1x	1026_08	6388	4522	10377	11251	11607
BLANK R3721626-3 WG1762605 1x	1026_09	6257	4430	9786	10762	10976
MS R3721626-4 WG1762605 1x	1026_34	6545	4598	10393	11518	11988
MSD R3721626-5 WG1762605 1x	1026_35	6560	4684	10469	11478	12146
L1421071-12 WG1762605 1x	1026_39	6342	4448	9968	10564	10991
L1421071-13 WG1762605 1x	1026_40	6254	4409	9778	10395	10770
L1421071-14 WG1762605 1x	1026_41	6232	4443	9769	10438	10788
L1421071-15 WG1762605 1x	1026_42	6192	4315	9572	10138	10468

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
C3	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Method sensitivity check is acceptable.
C4	The reported concentration is an estimate. The continuing calibration standard associated with this data responded low. Data is likely to show a low bias concerning the result.
C5	The reported concentration is an estimate. The continuing calibration standard associated with this data responded high. Data is likely to show a high bias concerning the result.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

GLOSSARY OF TERMS

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P	RPD between the primary and confirmatory analysis exceeded 40%.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

[redacted]

Company Address:
Maul Foster & Alongi- Coeur d Alene, ID

601 East Front Avenue, Suite 202

Billing Information:
Accounts Payable - Stephanie Ashmore
400 E Mill Plain Blvd., Ste. 400
Vancouver, WA 98660

Pres Chk

Report to: **Lisa Pritzl**

Email To: **lpritzl@maulfoster.com**

Project Description: **WSU Steam Plant, Pullman, Washington**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **208-664-7883**

Client Project # **0457.02.03**

Lab Project # **MAUFOSCID-04570203**

Collected by (print): Lisa Pritzl

Site/Facility ID #

P.O. #

Collected by (signature): Lisa M. Pritzl

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Chain of Custody Page 1 of 2

Pace Analytical®

2 Coolers

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 142071

G121

Acctnum: **MAUFOSCID**
Template: **T197433**
Prelogin: **P880566**
PM: **110 - Brian Ford**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	soil NWTPHDX NOSGT 8ozClr-NoPres	soil PAHs 8270ESIM 8ozClr-NoPres	soil PCBs 8082 8ozClr-NoPres	soil RCRA8 6020 4ozClr-NoPres	soil VOCs 8260D 40mlAmb/MeOH10ml/Syr	water NWTPHDX NOSGT 40mlAmb-HCl-BT	water PAHs 8270ESIM 40mlAmb-NoPres-WT	water PCBs 8082 100ml Amb-NoPres	water RCRA8 6020 250mlHDPE-HNO3	water VOCs 8260D ULL 40mlAmb-HCl	Remarks	Sample # (lab only)
SB-1-2.5	G	SS	2.5	10-19-21	1255	3	X	X	Hold	X	X							-01
SB-1-15		SS	15		1306	3	X	Hold	Hold	X	X							-02
SB-2-2.0		SS	2.0		1500	3	X	X	Hold	X	X							-03
SB-2-15.0		SS	15.0		1505	3	X	Hold	Hold	X	X							-04
SB-3-5.0		SS	5.0		1340	3	X	X	Hold	X	X							-05
SB-3-13.0		SS	13.0		1350	3	X	Hold	Hold	X	X							-06
SB-5-5.0		SS	5.0		1150	2	X	X		X	X						Limited Volume	-07
SB-5-15.0		SS	15.0		1200	3	X	Hold	X	X	X			X LP				-08
SB-7-5.5		SS	5.5		1100	3	X	X	X	X	X			X				-09
SB-7-18.5		SS	18.5		1105	3	X	Hold	X	X	X			X				-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
2 coolers → 1 soil 1 GW

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 5217 3314 1543

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Lisa M. Pritzl	10-20-21	1600		4	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4 °C 2.6+0=2.6 Bottles Received: 82	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Madelle Cho	Date: 10/21/21 Time: 0900	Hold: / Condition: NCF / OK

Company/Address:
Maul Foster & Alongi- Coeur d Alene, ID

601 East Front Avenue, Suite 202

Billing Information:
Accounts Payable - Stephanie Ashmore
400 E Mill Plain Blvd., Ste. 400
Vancouver, WA 98660

Pres Chk

Report to: **Lisa Pritzl**

Email To: **lpritzl@maulfoster.com**

Project Description: **WSU Steam Plant, Pullman, Washington**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **208-664-7883**

Client Project # **0457.02.03**

Lab Project # **MAUFOSCID-04570203**

Collected by (print): L Pritzl

Site/Facility ID #

P.O. #

Collected by (signature): Lisa M. Pritzl

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace Analytical®

* 2 coolers *

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 142107

Table #

Acctnum: **MAUFOSCID**

Template: **T197433**

Prelogin: **P880566**

PM: **110 - Brian Ford**

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	soil NWTPHDX NOSGT 8ozClr-NoPres	soil PAHs 8270ESIM 8ozClr-NoPres	soil PCBs 8082 8ozClr-NoPres	soil RCRA8 6020 4ozClr-NoPres	soil VOCs 8260D 40mlAmb/MeOH10ml/Syr	water NWTPHDX NOSGT 40mlAmb-HCl-BT	water PAHs 8270ESIM 40mlAmb-NoPres-WT	water PCBs 8082 100ml Amb-NoPres	water RCRA8 6020 250mlHDPE-HNO3	water VOCs 8260D ULL 40mlAmb-HCl	Remarks	Sample # (lab only)
TripBank-SoilCooler	other	~~SS~~ Other		10-19-21	0800	2										X		-11
SB-1-GW	G	GW	—	10-19-21	1535	10						X	X		X	X	HydroPCB	-12
SB-2-GW	G	GW	—	10-19-21	1630	10						X	X		X	X	" "	-13
SB-5-GW	G	GW	—	10-19-21	1330	10						X	X	X	X	X		-14
SB-3-GW	G	GW	—	10-19-21	1720	10						X	X		X	X	" "	-15
SB-7-GW	G	GW	—	10-19-21	1650	10						X	X	X		X		-16
TRIP Blank-Water Cooler	other	~~GW~~ Other	—	10-19-21	0800	2										X		-17
		GW																
		GW																
		GW																

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: HCL Removed + Rinsed from 100 ml AMbers Prior to Sample Collection (LP)

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 5217 3314 1532

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		X Y N
Bottles arrive intact:		X Y N
Correct bottles used:		X Y N
Sufficient volume sent:		X Y N
If Applicable		
VOA Zero Headspace:		X Y N
Preservation Correct/Checked:		X Y N
RAD Screen <0.5 mR/hr:		X Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No (HCL / MeoH) TBR	If preservation required by Login: Date/Time
Lisa M. Pritzl	10/20/21	1600		4	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: Amb °C 2.6+0=2.6 Bottles Received: 82	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/21/21 Time: 0900	Hold: Condition: NCF / OK

ANALYTICAL REPORT

November 17, 2021

Maul Foster & Alongi- Coeur d Alene, ID

Sample Delivery Group:	L1431168
Samples Received:	11/13/2021
Project Number:	0457.02.03
Description:	WSU Steam Plant, Pullman, Washington
Site:	WSU STEAMPLANT
Report To:	Lisa Pritzl 601 East Front Avenue, Suite 202 Coeur d'Alene, ID 83814

Entire Report Reviewed By:

Brian Ford

Project Manager

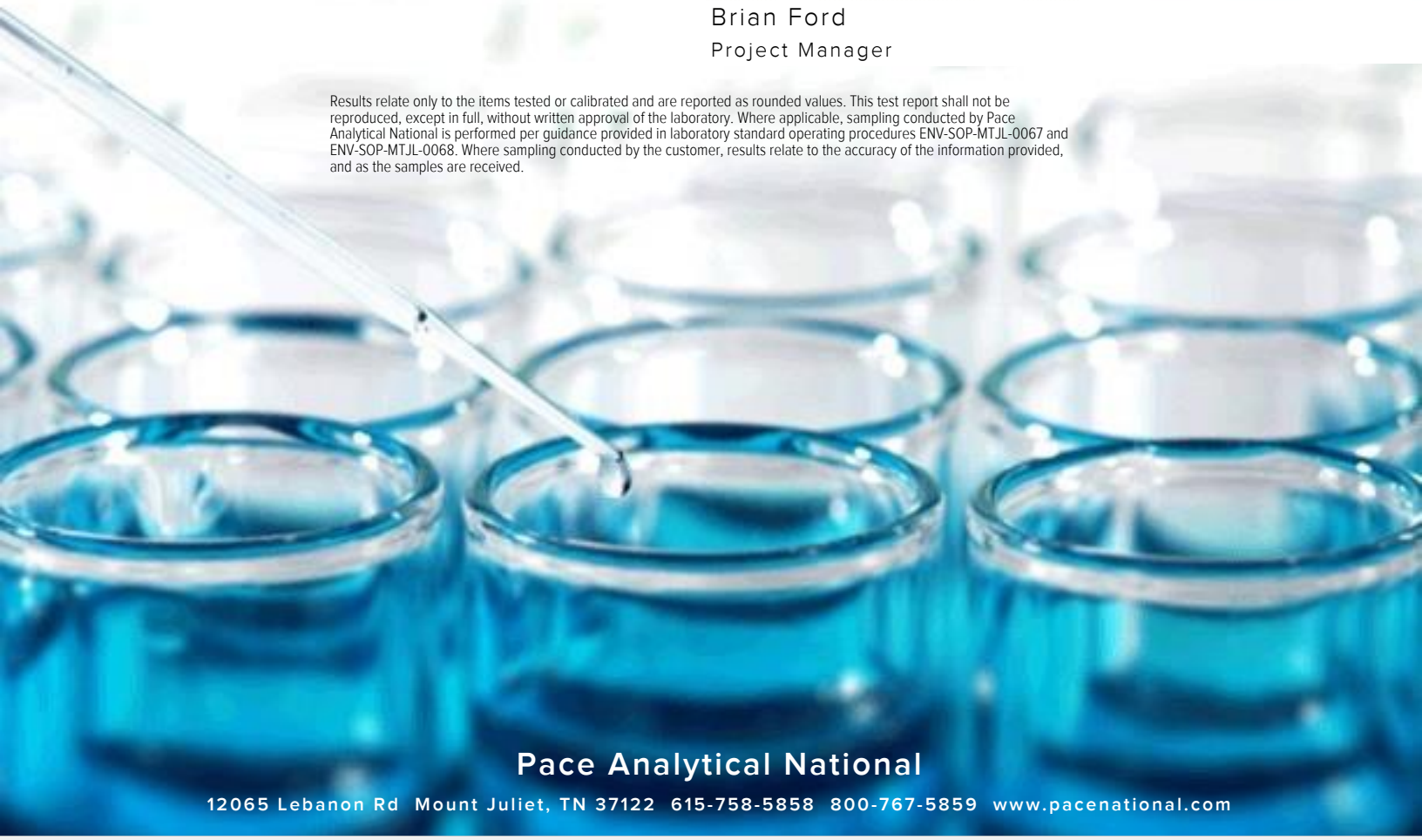

TABLE OF CONTENTS

VP-1 L1431168-01 Air

Collected by	Collected date/time	Received date/time
L. Pritzl	11/12/21 11:21	11/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1774462	1	11/15/21 15:22	11/15/21 15:22	CEP	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1775095	1	11/16/21 13:47	11/16/21 13:47	CMS	Mt. Juliet, TN

VP-2 L1431168-02 Air

Collected by	Collected date/time	Received date/time
L. Pritzl	11/12/21 12:19	11/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1774462	1	11/15/21 16:02	11/15/21 16:02	CEP	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1775095	1	11/16/21 13:50	11/16/21 13:50	CMS	Mt. Juliet, TN

VP-3 L1431168-03 Air

Collected by	Collected date/time	Received date/time
L. Pritzl	11/12/21 12:48	11/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1774462	1	11/15/21 16:42	11/15/21 16:42	CEP	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1775095	1	11/16/21 13:57	11/16/21 13:57	CMS	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	12.7	30.2		1	WG1774462
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1774462
Benzene	71-43-2	78.10	0.200	0.639	2.23	7.12		1	WG1774462
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1774462
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1774462
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1774462
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1774462
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1774462
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1774462
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1774462
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1774462
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1774462
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1774462
Chloromethane	74-87-3	50.50	0.200	0.413	0.221	0.456		1	WG1774462
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1774462
Cyclohexane	110-82-7	84.20	0.200	0.689	0.212	0.730		1	WG1774462
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1774462
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1774462
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1774462
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1774462
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1774462
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1774462
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1774462
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1774462
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1774462
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1774462
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1774462
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1774462
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1774462
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.233	0.840		1	WG1774462
Ethanol	64-17-5	46.10	1.25	2.36	56.5	107		1	WG1774462
Ethylbenzene	100-41-4	106	0.200	0.867	0.403	1.75		1	WG1774462
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1774462
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.207	1.16		1	WG1774462
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.466	2.30		1	WG1774462
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1774462
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1774462
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1774462
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1774462
n-Hexane	110-54-3	86.20	0.630	2.22	0.899	3.17		1	WG1774462
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1774462
Methylene Chloride	75-09-2	84.90	0.200	0.694	1.86	6.46		1	WG1774462
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1774462
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.37	4.04		1	WG1774462
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1774462
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1774462
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1774462
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1774462
2-Propanol	67-63-0	60.10	1.25	3.07	2.16	5.31		1	WG1774462
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG1774462
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1774462
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1774462
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1774462
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1774462
Toluene	108-88-3	92.10	0.500	1.88	4.04	15.2		1	WG1774462
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1774462

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1774462
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1774462
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1774462
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1774462
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1774462
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1774462
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1774462
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1774462
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1774462
m&p-Xylene	1330-20-7	106	0.400	1.73	2.03	8.80		1	WG1774462
o-Xylene	95-47-6	106	0.200	0.867	0.722	3.13		1	WG1774462
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*104*				WG1774462

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1775095

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	6.78	16.1		1	WG1774462
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1774462
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1774462
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1774462
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1774462
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1774462
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1774462
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1774462
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1774462
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1774462
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1774462
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1774462
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1774462
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1774462
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1774462
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1774462
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1774462
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1774462
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1774462
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1774462
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1774462
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1774462
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1774462
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1774462
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1774462
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1774462
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1774462
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1774462
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1774462
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1774462
Ethanol	64-17-5	46.10	1.25	2.36	38.0	71.6		1	WG1774462
Ethylbenzene	100-41-4	106	0.200	0.867	0.358	1.55		1	WG1774462
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1774462
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	2.39	13.4		1	WG1774462
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.485	2.40		1	WG1774462
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1774462
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	0.605	4.23		1	WG1774462
Heptane	142-82-5	100	0.200	0.818	8.35	34.2		1	WG1774462
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1774462
n-Hexane	110-54-3	86.20	0.630	2.22	14.9	52.5		1	WG1774462
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1774462
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1774462
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1774462
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1774462
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1774462
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1774462
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1774462
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1774462
2-Propanol	67-63-0	60.10	1.25	3.07	ND	ND		1	WG1774462
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG1774462
Styrene	100-42-5	104	0.200	0.851	0.348	1.48		1	WG1774462
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1774462
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1774462
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1774462
Toluene	108-88-3	92.10	0.500	1.88	4.03	15.2		1	WG1774462
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1774462

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1774462
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1774462
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1774462
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.251	1.23		1	WG1774462
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1774462
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1774462
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1774462
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1774462
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1774462
m&p-Xylene	1330-20-7	106	0.400	1.73	1.27	5.51		1	WG1774462
o-Xylene	95-47-6	106	0.200	0.867	0.405	1.76		1	WG1774462
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG1774462

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1775095

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	12.1	28.8		1	WG1774462
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1774462
Benzene	71-43-2	78.10	0.200	0.639	0.234	0.747		1	WG1774462
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1774462
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1774462
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1774462
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1774462
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1774462
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.958	2.98		1	WG1774462
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1774462
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1774462
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1774462
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1774462
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1774462
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1774462
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1774462
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1774462
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1774462
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1774462
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1774462
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1774462
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1774462
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1774462
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1774462
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1774462
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1774462
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1774462
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1774462
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1774462
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1774462
Ethanol	64-17-5	46.10	1.25	2.36	31.2	58.8		1	WG1774462
Ethylbenzene	100-41-4	106	0.200	0.867	0.517	2.24		1	WG1774462
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.252	1.24		1	WG1774462
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG1774462
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.494	2.44		1	WG1774462
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1774462
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1774462
Heptane	142-82-5	100	0.200	0.818	0.393	1.61		1	WG1774462
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1774462
n-Hexane	110-54-3	86.20	0.630	2.22	0.841	2.96		1	WG1774462
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1774462
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1774462
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1774462
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	1.95	5.75		1	WG1774462
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1774462
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1774462
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1774462
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1774462
2-Propanol	67-63-0	60.10	1.25	3.07	2.86	7.03		1	WG1774462
Propene	115-07-1	42.10	1.25	2.15	ND	ND		1	WG1774462
Styrene	100-42-5	104	0.200	0.851	0.489	2.08		1	WG1774462
1,1,2,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1774462
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1774462
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1774462
Toluene	108-88-3	92.10	0.500	1.88	3.79	14.3		1	WG1774462
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1774462

Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1774462
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1774462
Trichloroethylene	79-01-6	131	0.200	1.07	0.297	1.59		1	WG1774462
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.356	1.75		1	WG1774462
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1774462
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1774462
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1774462
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1774462
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1774462
m&p-Xylene	1330-20-7	106	0.400	1.73	1.87	8.11		1	WG1774462
o-Xylene	95-47-6	106	0.200	0.867	0.649	2.81		1	WG1774462
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG1774462

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL %	Result %	Qualifier	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1775095

Method Blank (MB)

(MB) R3729541-2 11/15/21 10:07

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
1,1,1-Trichloroethane	U		0.0736	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
1,1,2-Trichloroethane	U		0.0775	0.200
1,1,2-Trichlorotrifluoroethane	U		0.0793	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
1,2,4-Trichlorobenzene	U		0.148	0.630
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,2-Dichloropropane	U		0.0760	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
1,3-Butadiene	U		0.104	2.00
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,4-Dioxane	U		0.0833	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
2-Butanone (MEK)	U		0.0814	1.25
2-Chlorotoluene	U		0.0828	0.200
2-Propanol	U		0.264	1.25
4-Ethyltoluene	U		0.0783	0.200
4-Methyl-2-pentanone (MIBK)	U		0.0765	1.25
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Dibromochloromethane	U		0.0727	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200

Method Blank (MB)

(MB) R3729541-2 11/15/21 10:07

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Cyclohexane	U		0.0753	0.200
Dichlorodifluoromethane	U		0.137	0.200
Ethanol	U		0.265	1.25
Ethylbenzene	U		0.0835	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
Isopropylbenzene	U		0.0777	0.200
m&p-Xylene	U		0.135	0.400
Methyl Butyl Ketone	U		0.133	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Methylene Chloride	U		0.0979	0.200
n-Hexane	U		0.206	0.630
Naphthalene	U		0.350	0.630
o-Xylene	U		0.0828	0.200
Propene	0.0978	J	0.0932	1.25
Styrene	U		0.0788	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
trans-1,2-Dichloroethene	U		0.0673	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
Trichloroethylene	U		0.0680	0.200
Trichlorofluoromethane	U		0.0819	0.200
Vinyl acetate	U		0.116	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl chloride	U		0.0949	0.200
(S) 1,4-Bromofluorobenzene	*102*			*60.0-140*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3729541-1 11/15/21 09:29 • (LCSD) R3729541-3 11/15/21 10:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1-Trichloroethane	3.75	4.15	4.15	111	111	70.0-130			0.000	25
1,1,2,2-Tetrachloroethane	3.75	4.01	4.06	107	108	70.0-130			1.24	25
1,1,2-Trichloroethane	3.75	4.01	4.03	107	107	70.0-130			0.498	25
1,1,2-Trichlorotrifluoroethane	3.75	4.19	4.19	112	112	70.0-130			0.000	25
1,1-Dichloroethane	3.75	4.18	4.23	111	113	70.0-130			1.19	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3729541-1 11/15/21 09:29 • (LCSD) R3729541-3 11/15/21 10:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1-Dichloroethene	3.75	4.23	4.33	113	115	70.0-130			2.34	25
1,2,4-Trichlorobenzene	3.75	3.58	3.67	95.5	97.9	70.0-160			2.48	25
1,2,4-Trimethylbenzene	3.75	4.26	4.33	114	115	70.0-130			1.63	25
1,2-Dibromoethane	3.75	4.06	4.09	108	109	70.0-130			0.736	25
1,2-Dichlorobenzene	3.75	4.01	4.05	107	108	70.0-130			0.993	25
1,2-Dichloroethane	3.75	4.24	4.16	113	111	70.0-130			1.90	25
1,2-Dichloropropane	3.75	4.05	4.09	108	109	70.0-130			0.983	25
1,2-Dichlorotetrafluoroethane	3.75	4.04	4.06	108	108	70.0-130			0.494	25
1,3,5-Trimethylbenzene	3.75	4.30	4.35	115	116	70.0-130			1.16	25
1,3-Butadiene	3.75	3.64	3.67	97.1	97.9	70.0-130			0.821	25
1,3-Dichlorobenzene	3.75	4.02	4.01	107	107	70.0-130			0.249	25
1,4-Dichlorobenzene	3.75	3.93	3.97	105	106	70.0-130			1.01	25
1,4-Dioxane	3.75	4.37	4.34	117	116	70.0-140			0.689	25
2,2,4-Trimethylpentane	3.75	4.22	4.31	113	115	70.0-130			2.11	25
2-Butanone (MEK)	3.75	4.14	4.22	110	113	70.0-130			1.91	25
2-Chlorotoluene	3.75	4.13	4.16	110	111	70.0-130			0.724	25
2-Propanol	3.75	4.51	4.48	120	119	70.0-139			0.667	25
4-Ethyltoluene	3.75	4.18	4.22	111	113	70.0-130			0.952	25
4-Methyl-2-pentanone (MIBK)	3.75	4.37	4.48	117	119	70.0-139			2.49	25
Acetone	3.75	4.12	4.16	110	111	70.0-130			0.966	25
Allyl Chloride	3.75	4.17	4.53	111	121	70.0-130			8.28	25
Benzene	3.75	3.99	3.99	106	106	70.0-130			0.000	25
Benzyl Chloride	3.75	3.88	3.99	103	106	70.0-152			2.80	25
Bromodichloromethane	3.75	4.08	4.02	109	107	70.0-130			1.48	25
Bromoform	3.75	4.09	4.09	109	109	70.0-130			0.000	25
Bromomethane	3.75	3.87	3.68	103	98.1	70.0-130			5.03	25
Carbon disulfide	3.75	4.19	4.21	112	112	70.0-130			0.476	25
Carbon tetrachloride	3.75	4.19	4.15	112	111	70.0-130			0.959	25
Chlorobenzene	3.75	4.02	4.05	107	108	70.0-130			0.743	25
Dibromochloromethane	3.75	4.06	4.04	108	108	70.0-130			0.494	25
Chloroethane	3.75	3.64	3.34	97.1	89.1	70.0-130			8.60	25
Chloroform	3.75	4.10	4.14	109	110	70.0-130			0.971	25
Chloromethane	3.75	4.14	4.25	110	113	70.0-130			2.62	25
cis-1,2-Dichloroethene	3.75	4.23	4.32	113	115	70.0-130			2.11	25
cis-1,3-Dichloropropene	3.75	4.19	4.18	112	111	70.0-130			0.239	25
Cyclohexane	3.75	4.27	4.31	114	115	70.0-130			0.932	25
Dichlorodifluoromethane	3.75	4.06	4.11	108	110	64.0-139			1.22	25
Ethanol	3.75	4.59	4.60	122	123	55.0-148			0.218	25
Ethylbenzene	3.75	4.18	4.20	111	112	70.0-130			0.477	25
Heptane	3.75	4.11	4.33	110	115	70.0-130			5.21	25

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3729541-1 11/15/21 09:29 • (LCSD) R3729541-3 11/15/21 10:47

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hexachloro-1,3-butadiene	3.75	4.07	4.13	109	110	70.0-151			1.46	25
Isopropylbenzene	3.75	4.33	4.35	115	116	70.0-130			0.461	25
m&p-Xylene	7.50	8.48	8.54	113	114	70.0-130			0.705	25
Methyl Butyl Ketone	3.75	4.44	4.46	118	119	70.0-149			0.449	25
Methyl Methacrylate	3.75	4.13	4.16	110	111	70.0-130			0.724	25
MTBE	3.75	4.37	4.40	117	117	70.0-130			0.684	25
Methylene Chloride	3.75	4.07	4.18	109	111	70.0-130			2.67	25
n-Hexane	3.75	4.29	4.37	114	117	70.0-130			1.85	25
Naphthalene	3.75	3.85	3.88	103	103	70.0-159			0.776	25
o-Xylene	3.75	4.26	4.32	114	115	70.0-130			1.40	25
Propene	3.75	4.09	4.23	109	113	64.0-144			3.37	25
Styrene	3.75	4.20	4.24	112	113	70.0-130			0.948	25
Tetrachloroethylene	3.75	4.04	4.03	108	107	70.0-130			0.248	25
Tetrahydrofuran	3.75	4.21	4.33	112	115	70.0-137			2.81	25
Toluene	3.75	4.12	4.15	110	111	70.0-130			0.726	25
trans-1,2-Dichloroethene	3.75	4.28	4.31	114	115	70.0-130			0.698	25
trans-1,3-Dichloropropene	3.75	4.17	4.16	111	111	70.0-130			0.240	25
Trichloroethylene	3.75	4.09	4.14	109	110	70.0-130			1.22	25
Trichlorofluoromethane	3.75	3.99	3.79	106	101	70.0-130			5.14	25
Vinyl acetate	3.75	3.92	3.90	105	104	70.0-130			0.512	25
Vinyl Bromide	3.75	4.14	3.93	110	105	70.0-130			5.20	25
Vinyl chloride	3.75	3.98	3.97	106	106	70.0-130			0.252	25
(S) 1,4-Bromofluorobenzene				*104*	*104*	*60.0-140*				

Method Blank (MB)

(MB) R3730091-3 11/16/21 13:20

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Helium	U		0.0259	0.100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3730091-1 11/16/21 13:08 • (LCSD) R3730091-2 11/16/21 13:12

Analyte	Spike Amount %	LCS Result %	LCSD Result %	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Helium	2.50	2.37	2.31	94.8	92.4	70.0-130			2.56	25

INTERNAL STANDARD SUMMARY

Instrument: AIRMS1 • File ID: 1115_02

11/15/21 08:49

Sample ID	File ID	BROMOCHLOROMETHANE	1,4-DIFLUOROBENZENE	CHLOROBENZENE-D5
		Response	Response	Response
Standard	1115_02	197767	752184	681264
Upper Limit		352142	1310719	1205928
Lower Limit		150918	561737	516826
LCS R3729541-1 WG1774462 1x	1115_03	206540	785525	711278
BLANK R3729541-2 WG1774462 1x	1115_04	201879	778625	695877
LCSD R3729541-3 WG1774462 1x	1115_05	205837	787835	709797
L1431168-01 WG1774462 1x	1115_11	227568	872021	785939
L1431168-02 WG1774462 1x	1115_12	216727	832355	750139
L1431168-03 WG1774462 1x	1115_13	215052	828657	742390

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Company Name/Address:
Maul Foster & Alongi- Coeur d Alene, ID

601 East Front Avenue, Suite 202

Billing Information:
Accounts Payable - Stephanie Ashmore
400 E Mill Plain Blvd., Ste. 400
Vancouver, WA 98660

Pres Chk

Report to: **Lisa Pritzl**

Email To: lpritzl@maulfoster.com

Project Description: **WSU Steam Plant, Pullman, Washington**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **208-664-7883**

Client Project # **0457.02.03**

Lab Project # **MAUFOSCID-04570203**

Collected by (print): LPritzl

Site/Facility ID # WSU Steam Plant

P.O. #

Collected by (signature): Lisa Pritzl

Immediately Packed on Ice N NA

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs TO-15 Summa	~~VOCs TO-15 Tedlar~~	Helium	Remarks	Sample # (lab only)
VP-1	G	Air		11/12/21	1121		X		X		-01
VP-2	G	Air			1219		X		X		-02
VP-3	G	Air			1248		X		X		-03
		Air									
		Air									
		Air									

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1431168

Table # L-081

Acctnum: MAUFOSCID

Template: T198741

Prelogin: P885393

PM: 110 - Brian Ford

PB: CAM 11/04/21

Shipped Via: FedEX Saver

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 5349 7813 0098

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Lisa Pritzl	11/12/21	1602	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			B. Ballas

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: Amb °C Bottles Received: 3

Date: 11-13-21 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

APPENDIX E
DATA VALIDATION MEMORANDUM

DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. M0457.02.003 | NOVEMBER 29, 2021 | PORT OF WHITMAN COUNTY

Maul Foster & Alongi, Inc., conducted an independent stage 2A review of the quality of analytical results for groundwater, soil, air, and associated quality control samples collected at the former Washington State University Steam Plant site on October 12 and 19, 2021.

Pace Analytical National Center for Testing and Innovation (Pace-N) performed the analyses. Pace-N report numbers L1421071 and L1431168 were reviewed. The analyses performed and samples analyzed are listed below.

Analysis	Reference
Diesel- and residual-range-organics	NWTPH-Dx
Helium	ASTM D1946-1990
Polychlorinated biphenyls as Aroclors	EPA 8082A
Polycyclic aromatic hydrocarbons	EPA 8270E-SIM
Total mercury	EPA 7470A/7471B
Total metals	EPA 6020B
Total solids	SM 2540G-2011
Volatile organic compounds–groundwater and soil	EPA 8260D
Volatile organic compounds–air	TO-15

NOTES:
ASTM = ASTM International.
EPA = U.S. Environmental Protection Agency.
NWTPH = Northwest Total Petroleum Hydrocarbons.
SIM = selected ion monitoring.
SM = Standard Methods for the Examination of Water and Wastewater.
TO = toxic organics.

Samples Analyzed		
Report L1421071		**Report L1431168**
SB-1-2.5	SB-7-18.5	VP-1
SB-1-15	TRIP BLANK-SOIL COOLER	VP-2
SB-2-2.0	SB-1-GW	VP-3
SB-2-15.0	SB-2-GW	--
SB-3-5.0	SB-5-GW	--
SB-3-13.0	SB-3-GW	--
SB-5-5.0	SB-7-GW	--
SB-5-15.0	TRIP BLANK-WATER	--
SB-7-5.5	--	--

DATA QUALIFICATION

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA, 2020a,b) and appropriate laboratory- and method-specific guidelines (EPA, 1986; Pace-N, 2020).

Data validation procedures were modified, as appropriate, to accommodate quality control requirements for methods that EPA data review procedures do not specifically address (e.g., NWTPH-Dx).

Based on the results of the data quality review procedures described below, the data are considered acceptable for their intended use, with the appropriate final data qualifiers assigned. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, as well as data qualifiers assigned by the reviewer during validation.

- Final data qualifiers:
  - J = result is estimated.
  - J+ = result is estimated with a potential high bias.
  - U = result is non-detect at the method detection limit (MDL) or at the method reporting limit (MRL).
  - UJ = result is non-detect with an estimated MDL.

The reviewer confirmed that each air sample provided for report L1431168 was collected under a helium shroud to detect leaks in the collection system. The associated sample results were non-detect for helium to MRLs.

HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

Holding Times

Extractions and analyses were performed within the recommended holding time criteria.

Preservation and Sample Storage

According to the chain-of-custody form (COC) provided in report L1421071, the hydrochloric acid preservative was removed and rinsed from the 100-milliliter amber glass containers prior to sample collection. These containers were used for EPA Method 8082A analysis, which required unpreserved amber containers. The reviewer confirmed that, per Pace-N's instruction, the field sampler removed the preservative by rinsing the 100-milliliter amber containers with bottled water. All samples were non-detect for EPA Method 8082A polychlorinated biphenyls; thus, qualification was not required.

The remaining samples were preserved and stored appropriately.

BLANKS

Method Blanks

Laboratory method blanks are used to assess whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the laboratory method blanks were associated with all samples prepared in the analytical batch.

According to report L1421071, the SM 2540G-2011 batch WG1762222 and WG1762223 laboratory method blanks had low total solids results. The associated sample results were all greater than ten times the laboratory method blank results; thus, qualification was not required.

According to report L1421071, the EPA Method 6020B batch WG1763394 laboratory method blank had a detection of total chromium between the MDL and MRL, at 1.77 micrograms per liter (ug/L). All associated detected results were greater than the MRL but less than five times the laboratory method blank concentration; these results have been qualified by the reviewer with "J+," as estimated with a potential high bias.

Report	Sample	Component	Method Blank Result (ug/L)	Original Result (ug/L)	Qualified Result (ug/L)
L1421071	SB-1-GW	Total chromium	1.77 J	3.32	3.32 J+
	SB-2-GW			4.32	4.32 J+
	SB-5-GW			7.09	7.09 J+
	SB-3-GW			2.45	2.45 J+
NOTES: J = result is estimated. J+ = result is estimated with a potential high bias. ug/L = micrograms per liter.					

According to report L1421071, the EPA Method 8260D batch WG1763431 laboratory method blank had a detection of 2-butanone between the MDL and MRL at 0.0696 milligrams per kilogram (mg/kg). The associated sample results were non-detect; thus, qualification was not required.

According to report L1431168, the EPA Method TO-15 batch WG1774462 laboratory method blank had a detection of propene between the MDL and MRL at 0.0978 parts per billion by volume. The associated sample results were non-detect; thus, qualification was not required.

All remaining laboratory method blank results were non-detect to MDLs for all target analytes.

Equipment Rinsate Blanks

Equipment rinsate blanks are used to evaluate field equipment decontamination. Equipment rinsate blanks were not submitted for analysis.

Trip Blanks

Trip blanks are used to evaluate whether volatile organic compound contamination was introduced during sample storage and shipment between the sampling location and the laboratory.

Two trip blank samples (TRIP BLANK-SOIL COOLER and TRIP BLANK-WATER COOLER) were submitted with the sample delivery group L1421071 for EPA Method 8260D analysis.

Trip blank TRIP BLANK-SOIL COOLER had a detection of acetone above the MRL at 1.51 ug/L. Pace-N also indicated that the trip blank acetone result was estimated with a potential high bias due to association with a continuing calibration verification (CCV) sample with a high acetone percent recovery. Sample SB-5-5.0 had a detection of acetone below the MRL at 0.0733 mg/kg. Because the both the trip blank and sample concentrations were estimated, the reviewer determined that assessment against a wider range of potential impact from storage or shipment contamination was appropriate. The reviewer qualified the sample result with "U," as non-detect at the MRL, as shown in the table below.

The remaining soil samples were non-detect for acetone; thus, additional qualification was not required.

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
L1421071	SB-5-5.0	Acetone	0.0733 J	0.0941 U

NOTES:
J = result is estimated.
mg/kg = milligrams per kilogram.
U = result is non-detect at the method reporting limit.

The trip blank TRIP BLANK-WATER COOLER was non-detect to MDLs for all target analytes.

LABORATORY CONTROL SAMPLE/LABORATORY CONTROL SAMPLE DUPLICATE RESULTS

A laboratory control sample (LCS) and a laboratory control sample duplicate (LCSD) are spiked with target analytes to provide information about laboratory precision and accuracy. The LCS/LCSD samples were extracted and analyzed at the required frequency. An LCSD was not reported with SM 2540G-2011; batch precision was evaluated with laboratory duplicate results. For remaining analytical batches, where LCSD results were not reported, batch precision was evaluated with matrix spike (MS) and matrix spike duplicate (MSD) results.

According to report L1421071, the EPA Method 8260D batch WG1761975 LCS and LCSD results for bromodichloromethane and dibromomethane were above upper percent recovery acceptance limits, ranging from 127 percent to 129 percent. The associated sample results were non-detect; thus, qualification was not required.

According to report L1421071, the EPA Method 8260D batch WG1763302 LCS and LCSD vinyl acetate results exceeded the relative percent difference (RPD) control limit of 20 percent, at 40.9 percent. The associated sample result was non-detect; thus, qualification was not required.

According to report L1421071, the EPA Method 8082A batch WG1761898 LCS result for Aroclor 1016 was flagged by Pace-N because the RPD for the confirmation analysis exceeded the control limit of 40 percent. The associated sample results were non-detect; thus, qualification was not required.

According to report L1421071, the EPA Method 8270E-SIM batch WG1762605 LCS and LCSD exceeded RPD control limits of 20 percent for benzo(g,h,i)perylene; benzo(k)fluoranthene; dibenz(a,h)anthracene; and indeno(1,2,3-cd)pyrene; ranging from 20.7 percent to 23.3 percent. The LCS and LCSD percent recoveries were acceptable, and the associated sample results were non-detect; thus, qualification was not required.

All remaining LCS/LCSD results were within acceptance limits for percent recovery and RPD.

LABORATORY DUPLICATE RESULTS

Laboratory duplicate results are used to evaluate laboratory precision. All laboratory duplicate samples were extracted and analyzed at the required frequencies. Laboratory duplicate results within five times the MRL were not evaluated for precision. Laboratory duplicate samples were reported only with SM 2540G-2011 quality control results. Batch precision was evaluated with LCS/LCSD or MS/MSD results

All laboratory duplicate results met RPD acceptance criteria.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

MS/MSD results are used to evaluate laboratory precision and accuracy as well as the effect of the sample matrix on sample preparation and analysis. All MS/MSD samples were prepared and analyzed at the required frequencies. When MS/MSD percent recoveries and RPDs were outside acceptance limits because of high concentrations of analyte in the sample, no qualifications were made by the reviewer. MS/MSDs are not required for EPA Method TO-15 and so were not reported by Pace-N.

MS/MSD percent recovery and RPD control limit exceedances did not require qualification in cases where the MS/MSD had been prepared by the laboratory with samples from unrelated projects because MS/MSD with these sample matrices were not representative of project sample matrices.

According to report L1421071, the EPA Method 8260D batch WG1763431 MS and MSD exceeded RPD control limits for most volatile organic compounds. The reviewer confirmed that the MSD had lower percent recoveries for most analytes, which likely contributed to the RPD exceedances. Associated detected sample results were qualified by the reviewer with "J," as estimated. Associated results detected below the MRL were already flagged by Pace-N as estimated; additional qualification was not required. Qualification of associated non-detect results was also not required.

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
L1421071	SB-1-2.5	Benzene	0.00527	0.00527 J
		n-Butylbenzene	0.00877 J	0.00877 J
		Ethylbenzene	0.0172	0.0172 J
		Isopropylbenzene	0.00503	0.00503 J
		p-Isopropyltoluene	0.0152	0.0152 J
		n-Propylbenzene	0.00566 J	0.00566 J[a]
		1,2,4-Trimethylbenzene	0.0485	0.0485 J
		1,3,5-Trimethylbenzene	0.0122	0.0122 J
		Total xylenes	0.112	0.112 J

NOTES:
J = result is estimated.
mg/kg = milligrams per kilogram.
[a]Result detected below the MRL; additional qualification not required.

According to report L1421071, the EPA Method 8270E-SIM batch WG1764422 MSD results for naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were below lower percent recovery acceptance limits with naphthalene at 3.83 percent, 1-methylnaphthalene at 5.10 percent, and 2-methylnaphthalene with no recovery. The associated MS results had low but acceptable percent recovery, at 12.0 percent, 30.6 percent, and 11.5 percent, respectively. Pace-N noted that the recoveries were impacted by the sample matrix. The reviewer confirmed that the associated sample concentrations were not high enough to impact percent recovery calculations. The associated sample results were qualified by the reviewer with "J," as estimated.

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
L1421071	SB-5-5.0	Naphthalene	0.105	0.105 J
		1-Methylnaphthalene	0.138	0.138 J
		2-Methylnaphthalene	0.195	0.195 J

NOTES:
J = result is estimated.
mg/kg = milligrams per kilogram.

All remaining MS/MSD results were within acceptance limits for percent recovery and RPD.

SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance for individual samples. The laboratory appropriately documented and qualified surrogate outliers. The reviewer took no action based on surrogate percent recoveries that were outside acceptance limits because of dilutions necessary to quantify high concentrations of target analytes present in the samples. The reviewer confirmed that batch quality assurance/quality control results for samples with surrogate outliers were within acceptance limits.

According to report L1421071, the NWTPH-Dx surrogate o-terphenyl result for sample SB-1-GW was below the lower percent recovery acceptance limit of 52.0 percent, at 50.5 percent. The associated sample results were non-detect and have been qualified by the reviewer with "UJ," as non-detect with an estimated detection limit.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
L1421071	SB-1-GW	Diesel-range organics	66.7 U	66.7 UJ
		Residual-range organics	83.3 U	83.3 UJ

NOTES:
U = result is non-detect at the method detection limit.
ug/L = micrograms per liter.
UJ = result is non-detect with an estimated detection limit.

All remaining surrogate results were within percent recovery acceptance limits.

CONTINUING CALIBRATION VERIFICATION RESULTS

CCV results are used to demonstrate instrument precision and accuracy through the end of the sample batch. Pace-N did not report CCV results but flagged sample results associated with CCV control limit exceedances. When surrogate or batch quality control results were flagged by the laboratory based on CCV exceedances but met percent recovery and/or RPD acceptance criteria, no action was required by the reviewer.

According to report L1421071, the EPA Method 8260D chloromethane; 1,1-dichloroethene; 2,2-dichloropropane; 1,1,2-trichlorotrifluoromethane; and vinyl chloride results for all soil samples; and tert-butylbenzene; 1,2-dibromo-3-chloropropane; and naphthalene results for TRIP BLANK-SOIL COOLER were flagged by Pace-N as estimated due to associated CCV results with low percent recoveries. Pace-N indicated that MRL sensitivity was demonstrated. The associated sample results were non-detect and have been qualified by the reviewer with "UJ," as non-detect with estimated detection limits.

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
L1421071	SB-1-2.5	Chloromethane	0.00564 U	0.00564 UJ
		1,1-Dichloroethene	0.000785 U	0.000785 UJ
		2,2-Dichloropropane	0.00179 U	0.00179 UJ
		1,1,2-Trichlorotrifluoroethane	0.000977 U	0.000977 UJ
		Trichlorofluoromethane	0.00107 U	0.00107 UJ
		Vinyl chloride	0.00150 U	0.00150 UJ
	SB-1-15	Chloromethane	0.00618 U	0.00618 UJ
		1,1-Dichloroethene	0.000860 U	0.000860 UJ
		2,2-Dichloropropane	0.00196 U	0.00196 UJ
		1,1,2-Trichlorotrifluoroethane	0.00107 U	0.00107 UJ
		Trichlorofluoromethane	0.00117 U	0.00117 UJ
		Vinyl chloride	0.00165 U	0.00165 UJ
	SB-2-2.0	Chloromethane	0.00632 U	0.00632 UJ
		1,1-Dichloroethene	0.000880 U	0.000880 UJ
		2,2-Dichloropropane	0.00201 U	0.00201 UJ
		1,1,2-Trichlorotrifluoroethane	0.00110 U	0.00110 UJ
		Trichlorofluoromethane	0.00120 U	0.00120 UJ
		Vinyl chloride	0.00160 U	0.00160 UJ
	SB-2-15.0	Chloromethane	0.00632 U	0.00632 UJ
		1,1-Dichloroethene	0.000881 U	0.000881 UJ
		2,2-Dichloropropane	0.00201 U	0.00201 UJ
		1,1,2-Trichlorotrifluoroethane	0.00110 U	0.00110 UJ
		Trichlorofluoromethane	0.00120 U	0.00120 UJ
		Vinyl chloride	0.00169 U	0.00169 UJ
	SB-3-5.0	Chloromethane	0.00641 U	0.00641 UJ
		1,1-Dichloroethene	0.000893 U	0.000893 UJ
		2,2-Dichloropropane	0.00203 U	0.00203 UJ
		1,1,2-Trichlorotrifluoroethane	0.00111 U	0.00111 UJ
		Trichlorofluoromethane	0.00122 U	0.00122 UJ
		Vinyl chloride	0.00171 U	0.00171 UJ
	SB-3-13.0	Chloromethane	0.00593 U	0.00593 UJ
		1,1-Dichloroethene	0.000827 U	0.000827 UJ
		2,2-Dichloropropane	0.00188 U	0.00188 UJ
		1,1,2-Trichlorotrifluoroethane	0.00103 U	0.00103 UJ
		Trichlorofluoromethane	0.00113 U	0.00113 UJ

Report	Sample	Component	Original Result (mg/kg)	Qualified Result (mg/kg)
		Vinyl chloride	0.00158 U	0.00158 UJ
	SB-5-5.0	Chloromethane	0.00819 U	0.00819 UJ
		1,1-Dichloroethene	0.00114 U	0.00114 UJ
		2,2-Dichloropropane	0.00260 U	0.00260 UJ
		1,1,2-Trichlorotrifluoroethane	0.00142 U	0.00142 UJ
		Trichlorofluoromethane	0.00156 U	0.00156 UJ
		Vinyl chloride	0.00219 U	0.00219 UJ
	SB-5-15.0	Chloromethane	0.00622 U	0.00622 UJ
		1,1-Dichloroethene	0.000866 U	0.000866 UJ
		2,2-Dichloropropane	0.00197 U	0.00197 UJ
		1,1,2-Trichlorotrifluoroethane	0.00108 U	0.00108 UJ
		Trichlorofluoromethane	0.00118 U	0.00118 UJ
		Vinyl chloride	0.00166 U	0.00166 UJ
	SB-7-5.5	Chloromethane	0.00772 U	0.00772 UJ
		1,1-Dichloroethene	0.00108 U	0.00108 UJ
		2,2-Dichloropropane	0.00245 U	0.00245 UJ
		1,1,2-Trichlorotrifluoroethane	0.00134 U	0.00134 UJ
		Trichlorofluoromethane	0.00147 U	0.00147 UJ
		Vinyl chloride	0.00206 U	0.00206 UJ
	SB-7-18.5	Chloromethane	0.00698 U	0.00698 UJ
		1,1-Dichloroethene	0.000972 U	0.000972 UJ
		2,2-Dichloropropane	0.00221 U	0.00221 UJ
		1,1,2-Trichlorotrifluoroethane	0.00121 U	0.00121 UJ
		Trichlorofluoromethane	0.00133 U	0.00133 UJ
		Vinyl chloride	0.00186 U	0.00186 UJ

NOTES:
mg/kg = milligrams per kilogram.
U = result is non-detect at the method detection limit.
UJ = result is non-detect with an estimated detection limit.

According to report L1421071, the EPA Method 8260D acetone results for all trip blank and groundwater samples and the chloroform result for sample SB-7-GW were flagged by Pace-N as estimated due to associated CCV results with high percent recoveries. The sample results have been qualified by the reviewer with "J," as estimated. All EPA Method 8260D groundwater sample results for tert-butylbenzene, 1,2-dibromo-3-chloropropane, and naphthalene; and the trip blank sample TRIP BLANK-WATER COOLER results for bromomethane; hexachloro-1,3-butadiene; and naphthalene were flagged by Pace-N as estimated due to associated CCV results with low percent recoveries. Pace-N indicated that

MRL sensitivity was demonstrated for all of these CCV exceedances. The associated sample results were non-detect and have been qualified by the reviewer with "UJ," as non-detect with estimated detection limits. Qualifications are shown in the table below.

The EPA Method 8260D 1,2,3-trichlorobenzene and 1,2,4-trichlorobeznene results for sample TRIP BLANK-WATER COOLER were flagged by Pace-N as estimated with potential low bias due to association with a CCV that had results below the lower percent recovery acceptance limit. The reviewer confirmed that reporting limit sensitivity was not demonstrated by the laboratory. Because the sample results were non-detect, potentially biased low, and reporting limit sensitivity was not demonstrated by Pace-N, the reviewer raised MDLs to MRLs by qualifying the results with "U," as non-detect at the MRL in the table below.

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
L1421071	TRIP BLANK-SOIL COOLER	Acetone	1.51	1.51 J
		tert-Butylbenzene	0.0620 U	0.0620 UJ
		1,2-Dibromo-3-chloropropane	0.204 U	0.204 UJ
		Naphthalene	0.124 U	0.124 UJ
	SB-1-GW	Acetone	3.07	3.07 J
		tert-Butylbenzene	0.0620 U	0.0620 UJ
		1,2-Dibromo-3-chloropropane	0.204 U	0.204 UJ
		Naphthalene	0.124 U	0.124 UJ
	SB-2-GW	Acetone	2.65	2.65 J
		tert-Butylbenzene	0.0620 U	0.0620 UJ
		1,2-Dibromo-3-chloropropane	0.204 U	0.204 UJ
		Naphthalene	0.124 U	0.124 UJ
	SB-5-GW	Acetone	2.65	2.65 J
		tert-Butylbenzene	0.0620 U	0.0620 UJ
		1,2-Dibromo-3-chloropropane	0.204 U	0.204 UJ
		Naphthalene	0.124 U	0.124 UJ
	SB-3-GW	Acetone	1.41	1.41 J
		tert-Butylbenzene	0.0620 U	0.0620 UJ
		1,2-Dibromo-3-chloropropane	0.204 U	0.204 UJ
		Naphthalene	0.124 U	0.124 UJ
	SB-7-GW	Acetone	20.4	20.4 J
		tert-Butylbenzene	0.0620 U	0.0620 UJ
		Chloroform	0.205	0.205 J
		1,2-Dibromo-3-chloropropane	0.204 U	0.204 UJ
		Naphthalene	0.124 U	0.124 UJ

Report	Sample	Component	Original Result (ug/L)	Qualified Result (ug/L)
	TRIP BLANK-WATER COOLER	Bromomethane	0.148	0.148 J
		Hexachloro-1,3-butadiene	0.508 U	0.508 UJ
		Naphthalene	0.124 U	0.124 UJ
		1,2,3-Trichlorobenzene	0.0250 U	0.5400 U
		1,2,4-Trichlorobenzene	0.193 U	0.500 U

NOTES:
J = result is estimated.
U = result is non-detect at the method detection limit/method reporting limit.
ug/L = micrograms per liter.
UJ = result is non-detect with an estimated detection limit.

FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. Field duplicate samples were not submitted for analysis.

REPORTING LIMITS

Pace-N reported non-detect soil and groundwater results to MDLs and non-detect air results to MRLs. Pace-N also reported MRLs, which were labeled as reporting detection limits in the laboratory report. Samples requiring dilutions because of high analyte concentrations and/or matrix interferences were reported with raised MDLs and/or MRLs. Results detected between MDLs and MRLs were flagged by Pace-N with "J," as estimated.

DATA PACKAGE

The data package was reviewed for transcription errors, omissions, and anomalies.

According to report L1421071, the trip blank sample names were provided on the COC as "TripBlank-Soil Cooler" and "TRIP Blank-Water Cooler" but were reported by Pace-N as "TRIP BLANK-SOIL COOLER" and "TRIP BLANK-WATER COOLER" instead. The changes made to the sample names by Pace-N were limited to capitalization and so were considered minor by the reviewer. No action was required.

According to the COC included with report L1431168, the sample collection date was not recorded for samples VP-2 and VP-3. The reviewer confirmed that the sample collection date was November 12, 2021, for both samples. The correct sample collection date was reported by Pace-N. No additional action was required. No additional issues were found.

REFERENCES

EPA. 1986. Test methods for evaluating solid waste, physical/chemical methods. EPA publication SW-846. 3d ed. U.S. Environmental Protection Agency. Final updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), V (2015), VI phase I (2017), VI phase II (2018), VI phase III (2019).

EPA. 2020a. EPA contract laboratory program, national functional guidelines for inorganic Superfund methods data review. EPA 542-R-20-006. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. November.

EPA. 2020b. EPA contract laboratory program, national functional guidelines for organic Superfund methods data review. EPA 540-R-20-005. U.S. Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. November.

Pace-N. 2020. Laboratory quality manual. Revision 05. Pace Analytical Services, LLC. Mt. Juliet, Tennessee. November 13.