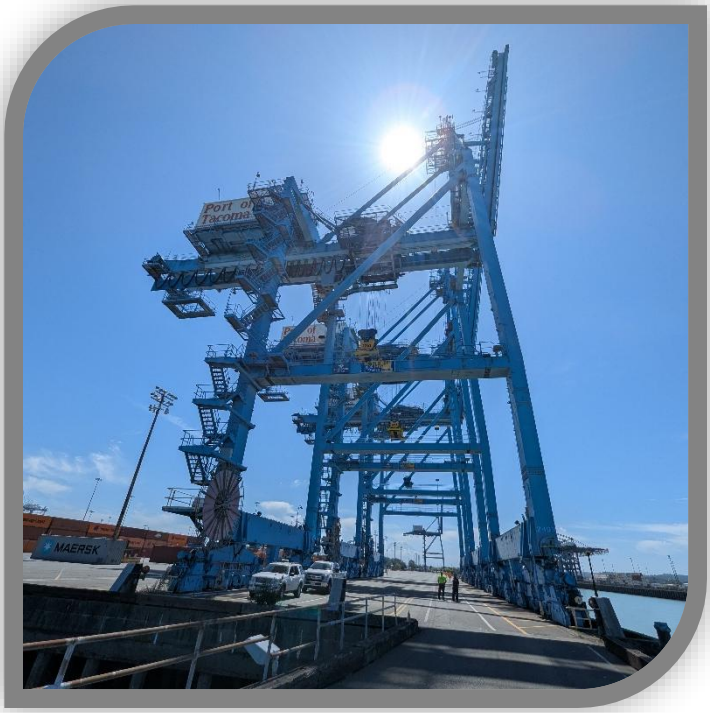
Hazardous Building Materials Assessment



Port of Tacoma
Tacoma, WA

Assessment Date:
10 June 2025

Prepared for: Port of Tacoma
One Sitcum Plaza
Tacoma, WA 98421

Prepared by: DH Environmental, Inc.
1011 SW Klickitat Way,
Suite 107
Seattle, WA 98134

EXECUTIVE SUMMARY

The Port of Tacoma (POT) retained DH Environmental, Inc. (DH Environmental) to conduct a hazardous building materials (HBM) assessment on crane 2403 located in Tacoma, Washington. On June 10, 2025, DH Environmental provided two AHERA-accredited building inspectors to perform the assessment. The scope of work included evaluating the crane for hazardous building materials in preparation for the planned demolition.

DH Environmental assessed the barge for the following hazardous building materials:

- Asbestos-containing materials (ACM)
- Lead-based paints (LBP)
- Polychlorinated Biphenyls (PCBs)
- Universal Waste

The crane and all associated building components were assessed for the presence of materials that may contain asbestos. Five (5) bulk samples of suspect asbestos-containing materials were collected and analyzed using polarized light microscopy (PLM). **None of the samples were found to contain asbestos at a level greater than 1%. Building materials that contain greater than 1% asbestos are considered "Asbestos Containing Materials" by regulatory definition.**

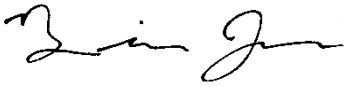
No gaskets were sampled during the inspection due to limited accessibility. It should be assumed that all gaskets on the crane contain asbestos at concentrations greater than 1%. We recommend that, as gaskets become accessible, they be sampled to determine whether they are ACM.

Thirteen (13) locations on the crane were analyzed using an X-ray fluorescence analyzer (XRF). **None of the tested locations exhibited lead concentrations exceeding the federal lead-based paint threshold of 1.0 mg/cm². While trace amounts of lead were detected in some coatings, the concentrations are considered negligible and do not trigger special waste handling requirements or additional health and safety precautions.**

The crane, including all associated structural elements, ancillary components, and oil-containing machinery, was evaluated for the presence of PCB-containing materials. **Three (3) samples of suspected PCB-containing oil were collected and analyzed for PCBs using EPA Method 8082. All results were below the regulatory threshold of 50 mg/kg for PCBs.**

Other hazardous materials, such as fluorescent lamps, light ballasts, CFL lights, sodium lights, and fire extinguishers, were identified during the inspection and are inventoried in the report.

PROJECT INFORMATION

Project Title	Port of Tacoma – Crane 2403 HBM Assessment Hazardous Building Materials Assessment
Assessment Conducted by	DH Environmental, Inc. 1011 SW Klickitat Way, Suite 107 Seattle, WA 98134
Project Owner	Port of Tacoma
Owner's Representative	Joe Caldwell Project Manager
Assessment Personnel	Nathan Kruse AHERA Accredited Building Inspector Finn O'Hea AHERA Accredited Building Inspector
Survey Date(s)	10 June 2025
Report Delivery Date	24 June 2025
Report Prepared by	 Brian Johnson, OHST, CIT AHERA Accredited Building Inspector Certified Lead Risk Assessor EHS Program Manager
Report Reviewed by	 Expires 12/01/2025 David Hill, PE, CHMM Principal DH Environmental, Inc.

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1.0 INTRODUCTION

The POT contracted DH Environmental, Inc. (DH Environmental) to perform an HBM assessment of crane 2403 in Tacoma, Washington. On June 10, 2025, two AHERA-accredited building inspectors from DH Environmental carried out the assessment.

1.1 Scope of Services

The purpose of the evaluation was to identify hazardous building materials in advance of the proposed demolition activities, in accordance with 40 CFR 763.86, Puget Sound Clean Air Agency (PSCAA) requirements, and the Washington State Dangerous Waste Regulations (WAC 173-303).

DH Environmental assessed the crane for the following hazardous building materials:

- Asbestos-containing materials (ACM)
- Lead-based paints (LBP)
- Polychlorinated Biphenyls (PCBs)
- Universal Waste

1.2 Assessment Objective

The objective of this hazardous building materials assessment is to assist the POT in communicating the presence, location, and quantity of asbestos-containing materials (ACM) to employees, vendors, and contractors working in the project area. Additionally, this assessment is intended to satisfy the requirements for an asbestos survey under the Puget Sound Clean Air Agency (PSCAA) and to fulfill the "good faith inspection" requirement set forth by the Washington State Department of Labor and Industries, Division of Occupational Safety and Health (DOSH), prior to any building demolition or renovation. Regulations require that a complete copy of this assessment be kept in a conspicuous on-site location at all times during activities that may disturb known or suspected ACM.

2.0 CRANE DESCRIPTION

Crane 2403, constructed in 1986, is a large industrial container crane designed for heavy-duty operations in a maritime port setting. The crane features a structural steel frame with a fixed base and a gantry-style design capable of supporting the lifting and transfer of shipping containers between vessels and the dock.

3.0 ASBESTOS CONTAINING MATERIALS ASSESSMENT

3.1 Applicable ACM Regulations

The Washington State Department of Labor and Industries' Division of Occupational Safety and Health (DOSH) and the Puget Sound Clean Air Agency regulate building materials that contain more than 1 percent asbestos as ACM for the protection of human health and the environment.

The Division of Occupational Safety and Health (DOSH) regulates worker exposure to airborne asbestos fibers during general work activities, as well as construction and demolition operations (WAC 296-62-077). Worker exposure must remain below the Permissible Exposure Limit (PEL), which is an 8-hour time-weighted average (TWA) of 0.1 fiber per cubic centimeter (f/cc) of air. DOSH regulations also establish engineering controls and work practices designed to minimize workers' exposure to asbestos in the workplace.

The Puget Sound Clean Air Agency (PSCAA) regulates the release of airborne asbestos fibers in King County and surrounding areas. Specifically, PSCAA under Article IV, Regulation Ill regulates emissions of asbestos during building renovation and demolition projects. This regulation requires that an asbestos survey be conducted prior to demolition, that PSCAA be notified prior to commencing with demolition activities, that ACM be removed prior to demolition, and that asbestos-containing waste materials be properly removed and disposed of in a manner that prevents the release of airborne asbestos fibers. In addition, the United States Environmental Protection Agency (USEPA) requires asbestos abatement workers and supervisors to be trained and certified in accordance with 40 CFR 763 Subpart E, Appendix C. DOSH has analogous training requirements for abatement workers in WAC 296-65. The EPA and DOSH training and certification requirements apply to abatement work for buildings at the subject property.

3.2 Sampling Methodology

The ACM sampling methodology conducted for this assessment was conducted in accordance with PSCAA Document 66-149, Asbestos Survey Guidance Rev. 2., as well as related AHERA Protocols.

Areas that will be impacted during the demolition were investigated thoroughly looking for suspected ACM. Destructive sampling was needed in some areas to help identify building material components (e.g., insulation that was found behind the walls). Where appropriate, suspect ACM was grouped as homogenous if the materials were similar in appearance.

3.3 Sampling Results

The crane and all associated building components were assessed for the presence of materials that may contain asbestos. Five (5) bulk samples of suspect asbestos-containing materials were collected and analyzed using polarized light microscopy (PLM). None of the samples were found to contain asbestos at a level greater than 1%. Building materials that contain greater than 1% asbestos are considered "Asbestos Containing Materials" by regulatory definition.

No gaskets were sampled during the inspection due to limited accessibility. It should be assumed that all gaskets on the crane contain asbestos at concentrations greater than 1%. We recommend that, as gaskets become accessible, they be sampled to determine whether they are ACM.

Locations of the areas tested are shown in Figure 1.

Sample ID	Material Description	Concentration	Material Quantity Estimate (if applicable)
POT-2403-01	**Layer 1:** Black foamy material	ACM (%): ND	NA
POT-2403-02	**Layer 1:** Black soft elastic material	ACM (%): ND	NA
POT-2403-03	**Layer 1:** Black rubbery material	ACM (%): ND	NA
POT-2403-04	**Layer 1:** White fibrous mesh with white gray coating material	ACM (%): ND	NA
POT-2403-05	**Layer 1:** Black interwoven fibrous material with debris	ACM (%): ND	NA

ND: Not Detected at Reporting Limit
NA: Not Applicable
ACM: Asbestos Containing Material

4.0 LEAD-BASED PAINT (LBP) ASSESSMENT

4.1 Applicable LBP Regulations

DOSH regulates occupational lead exposure for both general industry (WAC 296-62-07521) and construction work (WAC 296-155-176). These regulations establish engineering controls and work practices to minimize worker exposure to lead. They apply to renovation and demolition activities that may expose workers to airborne lead concentrations at or above the action level of 30 micrograms per cubic meter (µg/m³) as an 8-hour time-weighted average (TWA).

Workers must not be exposed to lead concentrations exceeding the permissible exposure limit (PEL) of 50 µg/m³ over an 8-hour TWA. Employers are responsible for determining whether their employees may be exposed to lead. This determination requires a negative exposure assessment, which may include exposure modeling or air monitoring to demonstrate that exposures do not exceed the action level.

If an exposure assessment cannot be conducted for demolition activities, workers who may come into contact with deteriorated paint or paint dust must wear appropriate personal protective equipment (PPE), including a half-face respirator with a particulate cartridge, full-body protective clothing (such as coveralls), gloves, safety glasses, and protective footwear or disposable shoe covers.

If a negative exposure assessment indicates that workers are exposed to lead concentrations above the PEL, employers must implement the full requirements of WAC 296-62-07521. This includes employee training, continued air monitoring, and enrollment in a medical surveillance program.

The USEPA regulates LBP activities in residential target housing (40 CFR 745, Subpart L). These regulations include both training and certification requirements for persons involved in LBP activities in target housing, as well as work practice standards for conducting LBP inspections, risk assessments, and abatement activities. The regulations under 40 CFR 745, Subpart L do not apply to LBP activities to be conducted on the subject property.

The USEPA and Washington State Department of Ecology requires generators of solid waste to determine whether their waste is a “Hazardous Waste” (Federal) or “Dangerous Waste” (State) for proper accumulation, transportation, and disposal. For demolition debris-related waste that potentially contains lead or other heavy metals, a representative sample(s) of the debris must be analyzed by the Toxicity Characteristic Leachate Procedure (TCLP) in accordance with WAC 173-303-090. Solid waste containing leachable lead detected at a concentration of 5 milligrams per liter (mg/L) or greater must be accumulated, stored, transported, and disposed of as dangerous waste. Scrap metal that will be recycled is exempt from regulation as a Dangerous Waste in accordance with WAC 173-303-071(ff).

4.2 LBP Sampling Methodology

The suspected lead-painted surfaces were tested using a portable X-ray fluorescence (XRF analyzer capable of detecting lead-based paint . XRF instruments expose a building component to electromagnetic radiation in the form of X-rays or gamma radiation. In response to radiation, each element, including lead, emits energy at a fixed and

characteristic level. Emission of characteristic x-rays is called "X-Ray Fluorescence," or XRF. The energy released is measured by the instrument's detector and displayed, all of the inconclusive ranges and/or thresholds are based on 1.0 mg/cm². The lead-based paint inspection was conducted in accordance with the methodologies set forth by the U.S. Department of Housing and Urban Development (HUD), and manufacturer's guidelines.

4.3 LBP Sampling Results

Thirteen (13) locations on the crane were analyzed using an X-ray fluorescence analyzer (XRF). **None of the tested locations exhibited lead concentrations exceeding the federal lead-based paint threshold of 1.0 mg/cm². While trace amounts of lead were detected in some coatings, the concentrations are considered negligible and do not trigger special waste handling requirements or additional health and safety precautions.**

A complete list of test locations is provided in Table 2.

Sample ID	Space Name	Component	Substrate	Color	Concentration
Pb-11	Crane 2403	Equipment	Metal	Green	Lead Concentration: .105 mg/cm²
Pb-12	Crane 2403	Boom Gear Box	Metal	Grey	Lead Concentration: ND
Pb-13	Crane 2403	Handrail	Metal	Blue	Lead Concentration: .076 mg/cm²
Pb-14	Crane 2403	Floor	Metal	Grey	Lead Concentration: .028 mg/cm²
Pb-15	Crane 2403	Brake	Metal	Red	Lead Concentration: ND
Pb-16	Crane 2403	Hoist Motor	Metal	Green	Lead Concentration: ND
Pb-17	Crane 2403	Wall	Metal	Grey	Lead Concentration: .025 mg/cm²
Pb-18	Crane 2403	Exterior Wall	Metal	White	Lead Concentration: .010 mg/cm²
Pb-19	Crane 2403	Handrail	Metal	Blue	Lead Concentration: .019 mg/cm²
Pb-20	Crane 2403	Exterior Stripe	Metal	Red	Lead Concentration: .174 mg/cm²
Pb-21	Crane 2403	Exterior Stripe	Metal	Blue	Lead Concentration: .007 mg/cm²
Pb-22	Crane 2403	Structural Support	Metal	Blue	Lead Concentration: .035 mg/cm²
Pb-23	Crane 2403	Boom House	Metal	Grey	Lead Concentration: .052 mg/cm²

Table 2: LBP Sample Results
mg/Kg: Parts Per Million (PPM)
ND: Not Detected at Reporting Limit
LBP: Lead-Based Paint

5.0 POLYCHLORINATED BIPHENYLS (PCBs) ASSESSMENT

5.1 Applicable PCB Regulations

Common PCB building materials include caulking, paint, and adhesives. Current regulations require the removal of building materials containing PCBs if found with concentrations of 50 parts per million (ppm) or greater. Reinforcing this regulatory interpretation, EPA's current policy is clearly stated on the agency's website under a page titled *Current Best Practices for PCBs in Caulk Fact Sheet - Removal and Clean-Up of PCBs in Caulk and PCB-Contaminated Soil and Building Material*[1]. The website states the following: "Caulk containing PCBs at concentrations ≥ 50 ppm is not authorized for use and must be removed and properly disposed. When disposed, the caulk must be managed as *PCB bulk product waste*, defined at 40 CFR §761.3. Regulations governing the cleanup and disposal of *PCB bulk product waste* are provided at 40 CFR §761.62. PCB-containing caulk or caulk coated building material containing PCBs at concentrations ≥ 50 ppm must be removed unless otherwise approved by EPA under a risk-based disposal approval issued under 40 CFR § 761.62(c)".

PCBs are also contained within the fluorescent lamp capacitors and interior potting material of old, magnetic lighting fixtures. The capacitor regulates the amount of electricity flowing into the lighting fixture, and the potting material insulates the FLB and reduces the "humming" noise. Because all PCB-containing fluorescent light ballasts currently in use have exceeded their designated life span, they are susceptible to leaking or rupturing. This may lead to increased exposure to building occupants. Residues from these sources are difficult and costly to clean up. Additionally, intact PCB-containing fluorescent light ballasts may emit small amounts of PCBs into the air during normal use of the lighting fixtures.

EPA recommends all PCB-containing fluorescent light ballasts be removed from lighting fixtures. The fluorescent light ballasts and capacitors are regulated in concentrations greater than 50 mg/kg by the USEPA, and at concentrations greater than 2 mg/kg by the Washington State Department of Ecology. In accordance with 40 CFR 761.2, "any person must assume that a capacitor manufactured prior to July 2, 1979, whose PCB concentration is not established contains ≥500 ppm PCBs. Any person may assume that a capacitor manufactured after July 2, 1979, is non-PCB (i.e., <50 ppm PCBs). If the date of manufacture is unknown, any person must assume the capacitor contains ≥500 ppm PCBs. Any person may assume that a capacitor marked at the time of manufacture with the statement "No PCBs" in accordance with § 761.40(g) is non-PCB."

[1] http://www.epa.gov/pcbsincaulk/caulkremoval.htm

5.2 PCB Sampling Methodology / Findings

No suspect PCB containing caulking materials were observed during the assessment.

Fluorescent lights and HID lamps were observed during the assessment but were not able to be accessed to verify that light ballasts say, “no PCBs”. Careful inspection of each ballast in the crane should be conducted upon removal to ensure proper management of the ballasts. If any of the ballasts do not contain the words “no PCBs” and were manufactured before July 2, 1979, they must be assumed to contain PCBs unless sampling confirms they do not. In addition, employers must inform their employees of PCB hazards in accordance with WAC 296-800-170.

5.3 PCB Sampling Results

The crane, including all associated structural elements, ancillary components, and oil-containing machinery, was evaluated for the presence of PCB-containing materials. Three (3) samples of suspected PCB-containing oil were collected and analyzed for PCBs using EPA Method 8082. All results were below the regulatory threshold of 50 mg/kg for PCBs.

Sample ID	Material Description	Sample Location	Concentration	Material Quantity Estimate (if applicable)
2403 Hoist Oil	Oil	Crane 2403	PCBs (mg/kg): ND	NA
2403 Boom Oil	Oil	Crane 2403	PCBs (mg/kg): ND	NA
2403 Final Drive Oil	Oil	Crane 2403	PCBs (mg/kg): ND	NA

Table 3: PCB Sample Results
mg/kg: milligrams per kilogram (parts per million)
PCB: Polychlorinated Biphenyls

6.0 OTHER HAZARDOUS BUILDING MATERIALS ASSESSMENT

A visual inspection was conducted to inventory other hazardous building materials. Other hazardous building materials assessed included universal waste and fire extinguishers.

6.1 Universal Waste

Universal waste is a category of dangerous waste that allows all businesses to handle several common types of dangerous waste under simplified rules. Managing these materials as universal waste means that they are not counted toward your generator status or reported on your Dangerous Waste Annual Report. In Washington State, five categories of waste can be managed as universal waste:

- Batteries;
- Lights, lamps, light bulbs, and light tubes;
- Mercury-containing thermometers;
- Mercury-containing thermostats;
- Mercury-containing switches and relays.

If any of these materials are identified for disposal for the demolition project, the materials should be removed, packaged, and recycled as universal waste.

6.2 Refrigerant Gases

Section 608 of the Federal Clean Air Act prohibits individuals from intentionally venting refrigerants into the atmosphere while disposing of refrigeration/AC equipment. “De minimis” quantities of refrigerant released in the course of making good faith attempts to recapture and recycle or safely dispose of refrigerant are not subject to this prohibition (40 CFR 82.154[a][2]). To implement the venting prohibition, Section 608 specifies evacuation level requirements (40 CFR 82.156) and refrigerant recovery equipment requirements (40 CFR 82.158) for both small appliances and other refrigeration/AC equipment. When demolishing or renovating a structure, the following equipment should be assessed to determine the need for evacuation, recovery, or disposal by a licensed technician:

Small Appliances

A small appliance is defined as any appliance that is fully manufactured, charged, and hermetically sealed in a factory with five pounds or less of a CFC or HCFC refrigerant, including the following:

- Refrigerators and freezers (designed for home, commercial, or consumer use);
- Medical or industrial research refrigeration equipment;
- Room air conditioners (including window air conditioners and packaged terminal air heat pumps);
- Under-the-counter ice makers;
- Vending machines; and
- Drinking water coolers.

All Other Equipment

All other equipment refers to all appliances except for small appliances, motor vehicle air conditioners (MVACs), and MVAC-like appliances. Specifically, this equipment includes:

- Chillers;
- Industrial refrigeration equipment (not including research equipment);
- Refrigerant fire suppression systems;
- Commercial refrigeration equipment; and
- Cold storage equipment.

6.3 Fire Extinguishers

Dry chemical and liquid fire extinguishers may designate as dangerous waste if they are disposed of as solid waste. Fire extinguishers should be removed from service prior to demolishing or renovating the area where the fire extinguishers are mounted or stored. If the fire extinguishers cannot be recycled or reused, they must be designated and disposed of accordingly.

6.4 Radioactive Exit Signs and Smoke Alarms

Many exit signs and smoke alarms contain low-level radioactive sources that should be managed in accordance with Nuclear Regulatory Commission Regulations. Accredited mail-in programs are available to recycle these materials. Radioactive exit signs and smoke alarms should be identified for removal and recycling or disposal prior to renovation or demolition of the building or affected area.

6.5 Summary of Other Hazardous Building Materials

This hazardous building materials assessment identified fluorescent light tubes, high intensity discharge lamps, refrigerant gases, mercury thermostats, propane tanks, and fire extinguishers that should be removed and reused, recycled, or disposed of prior to the renovation project. No radioactive exit signs or smoke alarms were identified.

Crane 2403 - Other Hazardous Building Materials	Total
Fluorescent Light Tubes	30-40
Fluorescent Light Ballast	10-30
High Intensity Discharge Lamps	3-5
CFL & Sodium Lights	40-50
Fire Extinguishers	3-5
Power Pack Internal Battery	1

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Asbestos Containing Materials

ACM was not detected in the areas where the work was understood to be conducted. Therefore, we recommend that this work should not be considered an "Asbestos Project" as defined in the Puget Sound Clean Air Agency Regulation 3, or WAC 296-62-07701.

7.2 Lead-Based Paint

Thirteen (13) locations on the crane were analyzed using an X-ray fluorescence (XRF) analyzer. None of the locations contained lead concentrations exceeding the federal lead-based paint threshold of 1.0 mg/cm^2. Trace amounts of lead were detected in some coatings; however, the concentrations are considered negligible and do not trigger special waste handling requirements or additional health and safety precautions.

Based on laboratory data from similar projects where a negative exposure assessment was conducted for personnel directly handling lead-containing paint, no airborne concentrations exceeded the action level of 30 micrograms per cubic meter (µg/m^3). Given this precedent and the fact that the work will be conducted outdoors, worker exposures are not expected to exceed the action level or the Permissible Exposure Limit (PEL), provided that industry-standard safety protocols and best management practices for dust control and exposure mitigation are followed.

7.3 Polychlorinated Biphenyls

Three (3) samples of suspected PCB-containing oil were collected and analyzed for PCBs using EPA Method 8082. All results were below the regulatory threshold of 50 mg/kg for PCBs.

No suspect PCB containing caulking materials were observed during the assessment.

Electrical transformers in the machine houses were observed during the assessment and a Port of Tacoma authorized representative verified that the transformers were of the "dry type" and contained no oil.

Fluorescent lights and HID lamps were observed during the assessment but were not able to be accessed to verify that light ballasts say, "no PCBs". Careful inspection of each ballast in the crane should be conducted upon removal to ensure proper management of the ballasts. If any of the ballasts do not contain the words "no PCBs" and were manufactured before July 2, 1979, they must be assumed to contain PCBs unless sampling confirms they do not. In addition, employers must inform their employees of PCB hazards in accordance with WAC 296-800-170.7.4.

8.0 LIMITATIONS

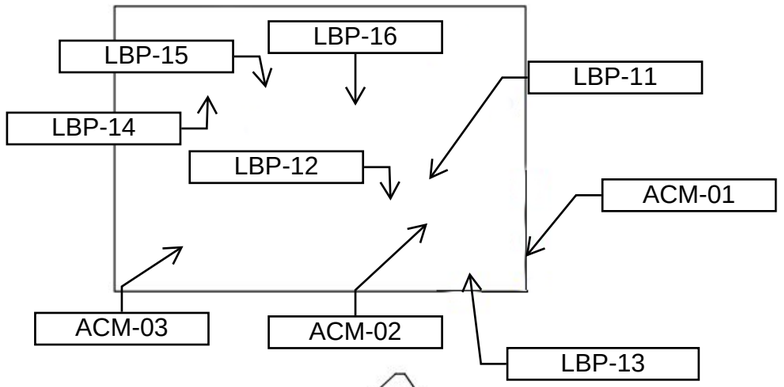
This report presents the results of the hazardous building materials (HBM) assessment. The assessment was conducted to identify hazardous building materials in advance of the planned demolition, in accordance with applicable regulatory requirements. For example, 40 CFR 763 and Puget Sound Clean Air Agency (PSCAA) Regulation III, Article 4.02(a), mandate an asbestos survey prior to the renovation or demolition of a structure. Additionally, the Washington State Dangerous Waste Regulations (WAC 173-303) require the identification and designation of solid waste prior to disposal, including suspect lead-based paint and other potentially hazardous building materials.

Our assessment has considered risks pertaining to asbestos, PCBs, and lead in paint. Our assessment is limited to only those locations and materials assessed. This assessment was not designed to identify all potential concerns or to eliminate all risks associated with renovation, demolition, construction, waste disposal, or transferring of property title. Evaluation of other risks not specifically described in the Scope of Work have not been included. For example, the following risks were not assessed: structural integrity, engineering loads, electrical, mechanical, radon gas, slope stability, building settlement, and evaluation of toxic and hazardous substances in, or in contact with, soil and groundwater. No warranty, expressed or implied, is made. DH Environmental has performed the services set forth in the Scope of Work in accordance with generally accepted practices in the same or similar localities, related to the nature of the work accomplished, at the time the services were performed.

The hazardous building materials assessment presented in this report represents the conditions and materials observed on the date we conducted the sampling. This assessment report is intended for the exclusive use of the POT for specific application to the referenced structure. This assessment does not replace or should be used in lieu of professionally developed construction or demolition plans, specifications, or bidding documents. This report is not a legal opinion.

Figure 1 Sample Locations: Lead Paint & Asbestos Assessment

OP Control



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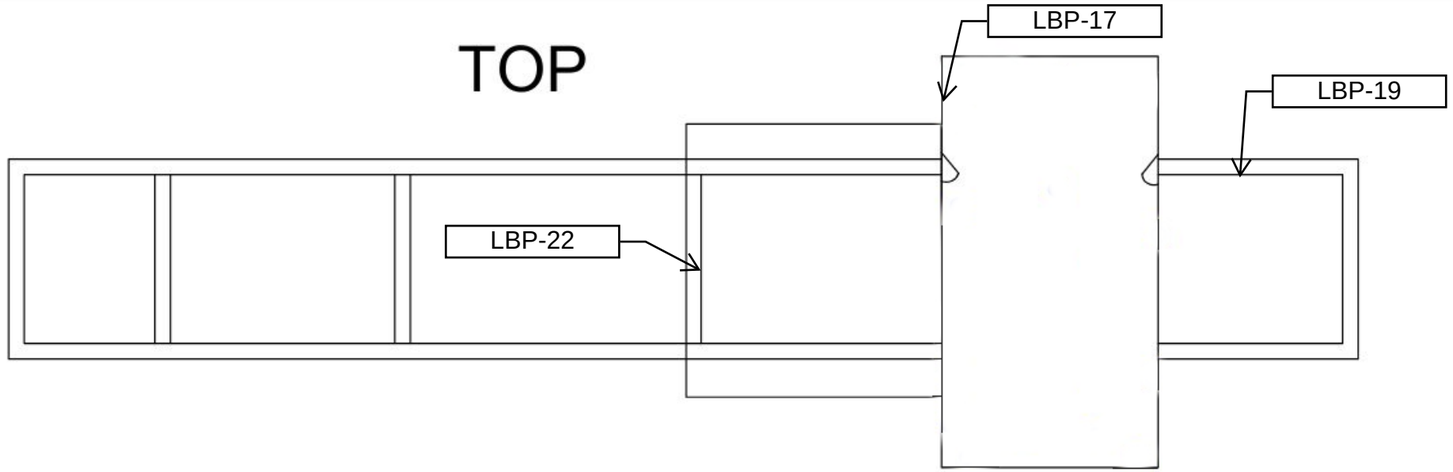

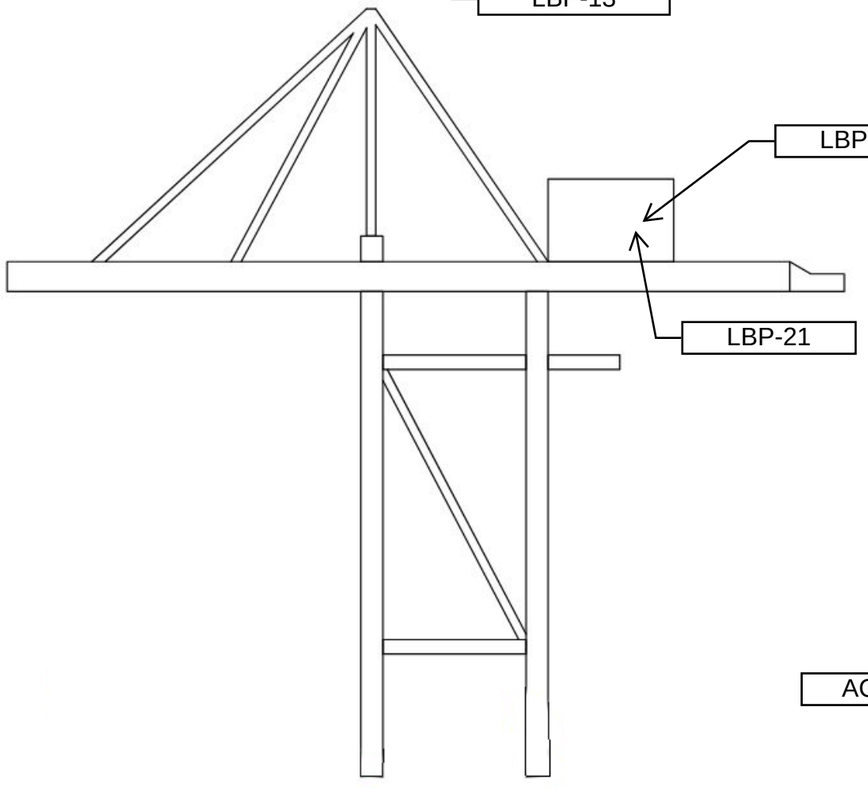

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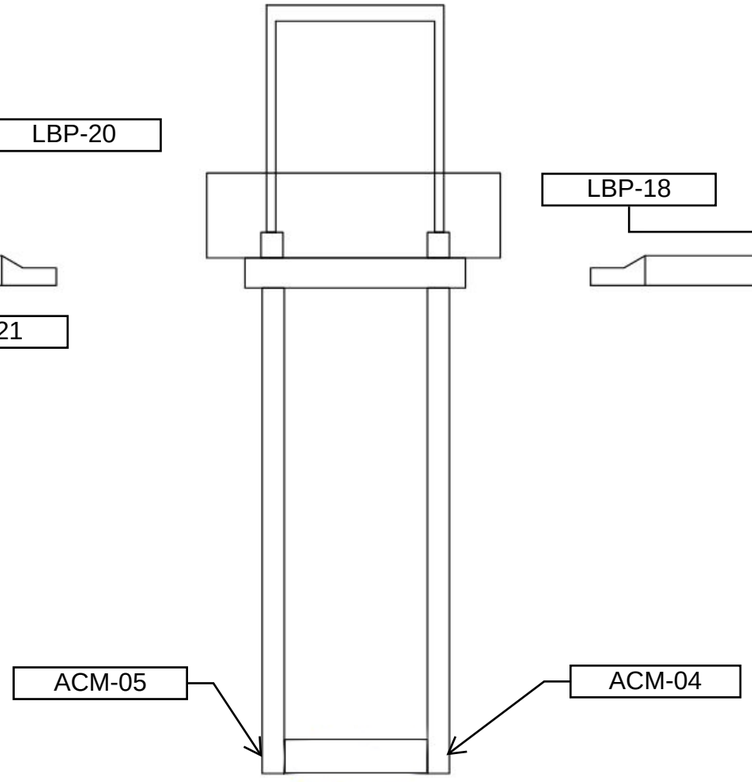

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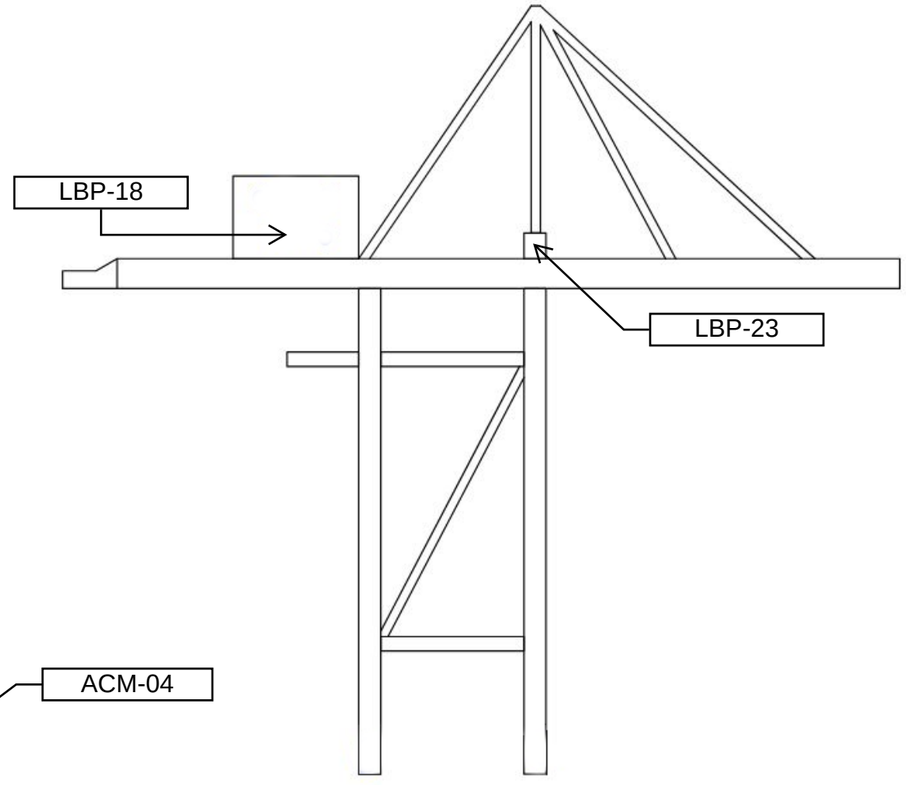

RIGHT

06-09-2025 By: Finn O'Hea Accredited AHERA Inspector	DH Environmental Inc	Hazardous Building Materials Assessment Port Of Tacoma Crane HBM	Sample Locations	Crane No. 2403
Site Address: 1056 Port of Tacoma Rd, Tacoma, WA 98421	Project Number: NA			

Attachment 1 Site Photos

Sample ID: POT-2403-01

Sample ID: POT-2403-02

Sample ID: POT-2403-03

Sample ID: POT-2403-04

 Sample ID: POT-2403-05	Sample ID:
Sample ID:	Sample ID:

Attachment 2 Laboratory Analytical Reports

June 17, 2025

INDUSTRIAL HYGIENE SERVICES
LABORATORY + MANAGEMENT + TRAINING

Brian Johnson
DH Environmental
1011 SW Klickitat Way Suite 107
Seattle, WA 98134

RE: Bulk Asbestos Fiber Analysis; NVL Batch # 2510129.00

Client Project: Crane 2403
Location: Port of Tacoma

Dear Mr. Johnson,

Enclosed please find test results for the 5 sample(s) submitted to our laboratory for analysis on 6/11/2025.

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,

Hilary Crumley, Manager Asbestos Laboratory

NVLAP
Testing
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: DH Environmental
Address: 1011 SW Klickitat Way Suite 107
Seattle, WA 98134

Attention: Mr. Brian Johnson
Project Location: Port of Tacoma

Batch #: 2510129.00
Client Project #: Crane 2403
Date Received: 6/11/2025
Samples Received: 5
Samples Analyzed: 5
Method: EPA/600/R-93/116

Lab ID: 250058896 **Client Sample #: POT-2403-01**
Location: Port of Tacoma
Layer 1 of 1 **Description:** Black foamy material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Synthetic foam	None Detected ND	**None Detected ND**

Lab ID: 250058897 **Client Sample #: POT-2403-02**
Location: Port of Tacoma
Layer 1 of 1 **Description:** Black soft elastic material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 250058898 **Client Sample #: POT-2403-03**
Location: Port of Tacoma
Layer 1 of 1 **Description:** Black rubbery material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Vinyl/Binder, Fine particles	None Detected ND	**None Detected ND**

Lab ID: 250058899 **Client Sample #: POT-2403-04**
Location: Port of Tacoma
Layer 1 of 1 **Description:** White fibrous mesh with gray coating material

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Paint	Synthetic fibers 69%	**None Detected ND**

Lab ID: 250058900 **Client Sample #: POT-2403-05**
Location: Port of Tacoma
Layer 1 of 1 **Description:** Black interwoven fibrous material with debris

Non-Fibrous Materials:	Other Fibrous Materials:%	**Asbestos Type: %**
Binder/Filler, Fine particles, Debris	Synthetic fibers 58%	**None Detected ND**

Sampled by: Client
Analyzed by: Akane Yoshikawa **Date:** 06/16/2025
Reviewed by: Hilary Crumley **Date:** 06/17/2025

Hilary Crumley, Manager Asbestos Laboratory

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 EPA 40 CFR Appendix E to Subpart E of Part 763 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 DH Environmental
Address 1011 SW Klickitat Way Suite 107
Seattle, WA 98134
Project Manager Mr. Brian Johnson
Phone (206) 934-4043

NVL Batch Number **2510129.00**
TAT 5 Days **AH** No
Rush TAT
Due Date 6/18/2025 **Time** 8:00 AM
Email brian.johnson@dhenviro.com
Fax (206) 930-4043

Project Name/Number: Crane 2403 **Project Location:** Port of Tacoma

Subcategory PLM Bulk
Item Code ASB-02 EPA 600/R-93-116 Asbestos by PLM <bulk>

Total Number of Samples 5 Rush Samples

	Lab ID	Sample ID	Description	A/R
1	250058896	POT-2403-01		A
2	250058897	POT-2403-02		A
3	250058898	POT-2403-03		A
4	250058899	POT-2403-04		A
5	250058900	POT-2403-05		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Client				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Kelly AuVu		NVL	6/11/25	800
Analyzed by	Akane Yoshikawa		NVL	6/16/25	
Results Called by					
☐ **Faxed** ☐ **Emailed**					

Special Instructions:

Date: 6/11/2025
Time: 10:03 AM
Entered By: Kelly AuVu

2510129

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: DH Environmental
Address: 1011 SW Klicktat Way
Seattle, WA 98134
Phone:

Project Manager: Brian Johnson
Cell: (206) 930 - 4043
Email:
Fax: ( ) -

Project Name/Number: Crane 2403
Project Location: Port of Tacoma

- ❑ 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: Please send results to brian.johnson@dhenviro.com
❑ Call ( ) - ❑ Fax ( ) - ☒ Email

Total Number of Samples 5

	Sample ID	Description	A/R
1	POT-2403-01	~~Insulation~~ Door Gasket	
2	POT-2403-02	~~Door Gasket~~ Gasket	
3	POT-2403-03	~~Gasket~~ Floormat	
4	POT-2403-04	Grey Bumper	
5	POT-2403-05	Black Bumper	
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

	Print Name	Signature	Company	Date	Time
Sampled by	~~Brian Johnson~~ Finn O'Hea		DH Environmental	06.10.2025	1100
Relinquish by	Brian Johnson		DH Enviromental	6-11-25	0800

Office Use Only

	Print Name	Signature	Company	Date	Time
Received by	Kennedy			6/11/25	800
Analyzed by					
Called by					
Faxed/Email by					

OnSite Environmental Inc.
14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

June 18, 2025

Brian Johnson
DH Environmental, Inc.
1011 SW Klickitat Way, Suite 107
Seattle, WA 98103

Re: Analytical Data for Project POT Crane HBM
Laboratory Reference No. 2506-138

Dear Brian:

Enclosed are the analytical results and associated quality control data for samples submitted on June 11, 2025.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: June 18, 2025
Samples Submitted: June 11, 2025
Laboratory Reference: 2506-138
Project: POT Crane HBM

Case Narrative

Samples were collected on June 10, 2025 and received by the laboratory on June 11, 2025. They were maintained at the laboratory at a temperature of 2°C to 6°C.

Please note that any and all soil sample results are reported on a dry-weight basis, unless otherwise noted below. However the soil results for the QA/QC samples are reported on a wet-weight basis.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

PCBs EPA 8082A Analysis

The percent recovery for surrogate DCB is outside the control limits on the low end for samples 2078 Final drive oil, 2403 Hoist oil, 2403 Boom oil, and 2403 Final drive oil due to sample matrix effects. The samples were florisil-cleaned and reanalyzed with similar results. Surrogate DCB was also low in the closings CCVs due to the negative effect of these sample matrices on the instrument, and therefore no further action was taken. All other QC associated with this sample batch is within control limits.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: June 18, 2025
Samples Submitted: June 11, 2025
Laboratory Reference: 2506-138
Project: POT Crane HBM

PCBs EPA 8082A

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**2078 Hoist oil**					
Laboratory ID:	06-138-01					
Aroclor 1016	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1221	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1232	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1242	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1248	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1254	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1260	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1262	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Aroclor 1268	**ND**	0.98	EPA 8082A	6-12-25	6-17-25	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*90*	*51-137*				
Client ID:	**2078 Boom oil**					
Laboratory ID:	06-138-02					
Aroclor 1016	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1221	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1232	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1242	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1248	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1254	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1260	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1262	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1268	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*59*	*51-137*				
Client ID:	**2078 Final drive oil**					
Laboratory ID:	06-138-03					
Aroclor 1016	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1221	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1232	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1242	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1248	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1254	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1260	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1262	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1268	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*47*	*51-137*				Q

Date of Report: June 18, 2025
Samples Submitted: June 11, 2025
Laboratory Reference: 2506-138
Project: POT Crane HBM

PCBs EPA 8082A

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	**2403 Hoist oil**					
Laboratory ID:	06-138-04					
Aroclor 1016	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1221	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1232	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1242	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1248	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1254	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1260	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1262	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1268	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*45*	*51-137*				Q
Client ID:	**2403 Boom oil**					
Laboratory ID:	06-138-05					
Aroclor 1016	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1221	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1232	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1242	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1248	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1254	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1260	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1262	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Aroclor 1268	**ND**	1.0	EPA 8082A	6-12-25	6-17-25	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*38*	*51-137*				Q
Client ID:	**2403 Final drive oil**					
Laboratory ID:	06-138-06					
Aroclor 1016	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1221	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1232	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1242	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1248	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1254	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1260	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1262	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Aroclor 1268	**ND**	0.99	EPA 8082A	6-12-25	6-17-25	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*37*	*51-137*				Q

Date of Report: June 18, 2025
Samples Submitted: June 11, 2025
Laboratory Reference: 2506-138
Project: POT Crane HBM

PCBs EPA 8082A
QUALITY CONTROL

Matrix: Product
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0612O2					
Aroclor 1016	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1221	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1232	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1242	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1248	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1254	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1260	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1262	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Aroclor 1268	**ND**	1.0	EPA 8082A	6-12-25	6-12-25	
Surrogate:	*Percent Recovery*	*Control Limits*				
DCB	*101*	*51-137*				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS											
Laboratory ID:	SB0612O2										
	SB	SBD	SB	SBD		SB	SBD				
Aroclor 1260	**5.16**	**4.76**	4.98	4.98	N/A	**104**	**96**	51-128	8	16	
Surrogate:											
DCB						*90*	*96*	*51-137*			

OnSite Environmental Inc.

Data Qualifiers and Abbreviations

A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.

B - The analyte indicated was also found in the blank sample.

C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.

E - The value reported exceeds the quantitation range and is an estimate.

F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.

H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.

I - Compound recovery is outside of the control limits.

J - The value reported was below the practical quantitation limit. The value is an estimate.

K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.

L - The RPD is outside of the control limits.

M - Hydrocarbons in the gasoline range are impacting the diesel range result.

M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.

N - Hydrocarbons in the lube oil range are impacting the diesel range result.

N1 - Hydrocarbons in diesel range are impacting lube oil range results.

O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.

P - The RPD of the detected concentrations between the two columns is greater than 40.

Q - Surrogate recovery is outside of the control limits.

S - Surrogate recovery data is not available due to the necessary dilution of the sample.

T - The sample chromatogram is not similar to a typical _____.

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

U1 - The practical quantitation limit is elevated due to interferences present in the sample.

V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.

W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.

X - Sample extract treated with a mercury cleanup procedure.

X1 - Sample extract treated with a sulfuric acid/silica gel cleanup procedure.

X2 - Sample extract treated with a silica gel cleanup procedure.

Y - The calibration verification for this analyte exceeded the 20% drift specified in methods 8260 & 8270, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.

Y1 - Negative effects of the matrix from this sample on the instrument caused values for this analyte in the bracketing continuing calibration verification standard (CCVs) to be outside of 20% acceptance criteria. Because of this, quantitation limits and sample concentrations should be considered estimates.

Z -

ND - Not Detected at PQL
PQL - Practical Quantitation Limit
RPD - Relative Percent Difference

Chain of Custody

OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Company: DH Environmental
Project Number:
Project Name: POT Crane HBM
Project Manager: Brian Johnson
Sampled by: Finn O'Hea, Nathan Kruse

Turnaround Request (in working days)

(Check One)

- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Days
- ☐ 3 Days
- ☒ Standard (7 Days)
- ☐ _____ (other)

Laboratory Number: 06-138

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX (8021☐ 8260☐)	NWTPH-Gx	NWTPH-Dx (SG Clean-up ☐)	Volatiles 8260	Halogenated Volatiles 8260	EDB EPA 8011 (Waters Only)	Semivolatiles 8270/SIM (with low-level PAHs)	PAHs 8270/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081	Organophosphorus Pesticides 8270/SIM	Chlorinated Acid Herbicides 8151	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture
1	2078 Hoist oil	6/10	9:25	Product	1										X								
2	2078 Boom oil	6/10	9:30	Product	1										X								
3	2078 Final drive oil	6/10	1005	Product	1										X								
4	2040 ~~2078~~ 3 Hoist oil	6/10	10:50	Product	1										X								
5	2040 ~~2078~~ 3 Boom oil	6/10	1050	Product	1										X								
6	2040 ~~2078~~ 3 Final drive oil	6/10	1120	Product	1										X								

	Signature	Company	Date	Time
Relinquished	[signature]	DH Environmental	6/11/25	1045
Received	[signature]	OSE	6/11/25	1045
Relinquished				
Received				
Relinquished				
Received				
Reviewed/Date		Reviewed/Date		

Comments/Special Instructions

Send results to:
data@DHenviro.com

Data Package: Standard ☒ Level III ☐ Level IV ☐

Chromatograms with final report ☐ Electronic Data Deliverables (EDDs) ☐

Attachment 3 Laboratory Certifications

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 102063-0

NVL Laboratories, Inc.

Seattle, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique on ISO/IEC 17025).

2024-10-01 through 2025-09-30

Effective Dates

For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

NVL Laboratories, Inc.
4708 Aurora Avenue N.
Seattle, WA 98103
Mr. Nghiep Vi Ly
Phone: 206-547-0100 Fax: 206-634-1936
Email: nick.l@nvllabs.com
http://www.nvllabs.com

ASBESTOS FIBER ANALYSIS — NVLAP LAB CODE 102063-0

Bulk Asbestos Analysis

Code	*Description*
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

Attachment 4 Inspector Certifications

Certificate of Completion

This is to certify that

Nathan Kruse

has satisfactorily completed
4 hours of online refresher training as an

AHERA Building Inspector

to comply with the training requirements of

TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

195542
Certificate Number

Instructor: David Welch

Nov 25, 2024 Expires in 1 year.
Date(s) of Training

Exam Score: N/A
(if applicable)

Terracon
Explore with us

- Facilities
- Environmental
- Geotechnical
- Materials

Certificate of Completion

This is to certify that

Finn O'Hea

has satisfactorily completed
24 hours of training as an

AHERA Building Inspector

to comply with the training requirements of

TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

196862
Certificate Number

Instructor: Tracy Bockla

Mar 26 - 28, 2025 Expires in 1 year.
Date(s) of Training

Exam Score: 98%
(if applicable)

Terracon
Explore with us

- Facilities
- Environmental
- Geotechnical
- Materials

Certificate of Completion

This is to certify that

Brian G. Johnson

has satisfactorily completed
4 hours of refresher training as an

AHERA Building Inspector

to comply with the training requirements of

TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

197165
Certificate Number

Instructor: David Welch

Apr 29, 2025 Expires in 1 year.
Date(s) of Training

Exam Score: N/A
(if applicable)

Terracon
Explore with us

- Facilities
- Environmental
- Geotechnical
- Materials