



HAZARDOUS MATERIALS SUMMARY
Buildings 990, 1319, 1351
Naval Undersea Warfare Center
Naval Station Newport, Newport, RI
Contract No.: N40085-18-D-8703

Prepared by

CDW Consultants, Inc.
6 Huron Drive
Natick, MA 01760

Prepared for

SMMA
1000 Massachusetts Avenue
Cambridge, MA 02138

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TABLE OF CONTENTS

	Page
1.0 INTRODUCTION.....	1
2.0 PROJECT UNDERSTANDING.....	1
3.0 GENERAL SITE CONDITIONS	1
4.0 REPORTS REVIEW	3
5.0 ASBESTOS SURVEY.....	5
5.1 Methods	5
5.2 Findings	5
5.3 Recommendations	10
6.0 LEAD-BASED PAINT	10
6.1 Methods	10
6.2 Findings	10
6.3 Recommendations	12
7.0 POLYCHLORATED BIPHENYLS	13
7.1 Methods	13
7.2 Findings	13
8.0 HAZARDOUS MATERIALS SURVEY	15
8.1 Methods	15
8.2 Findings	16
9.3 Recommendations	18

APPENDICES

- Appendix A: Asbestos Laboratory Reports
- Appendix B: Lead Laboratory Reports
- Appendix C: PCB Laboratory Reports
- Appendix D: Photographs



1.0 INTRODUCTION

CDW Consultants, Inc. (CDW) is pleased to present this report summarizing the findings of the preliminary suspect asbestos-containing materials (ACM), lead-based paint (LBP), polychlorinated biphenyls (PCBs), and hazardous materials survey of portions of Buildings 990, 1319 and 1351 at the Naval Undersea Warfare Center Division Newport (NUWC DIVNPT) located at Naval Base Newport, Rhode Island ("Site"). In November and December 2020, Ms. Susan Cahalan (Rhode Island Asbestos Inspector #AAC-1023) conducted an inspection for suspect materials. An inspection is required by the United States Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP), prior to scheduled building/structure renovations. Additionally, the Rhode Island Department of Health (RIDOH) and Rhode Island Department of Environmental Management (RIDEM) regulate ACM associated with renovation, demolition, and asbestos abatement projects. Samples of suspect materials were collected to confirm the presence or absence of ACM, LBP and PCBs. Suspect materials were grouped into homogenous areas. A homogenous area is an area that is similar in color, texture and date of application. Hand tools were used to collect bulk samples which were promptly placed in sealed plastic bags using a unique numbering system. Samples were not collected of non-suspect materials, including wood, fiberglass, plastic, ceramic, concrete, neoprene/rubber, glass, and carpeting.

2.0 PROJECT UNDERSTANDING

The scope of work was to provide a preliminary hazardous materials survey and sampling as required to verify of the presence of hazardous materials such as ACM, LBP, PCBs and other hazardous materials (mercury, oil etc.) that may be impacted by the scope of the work at portions of Buildings 990, 1319 and 1351. The objective of this work was to evaluate the HVAC systems at each of the three buildings at NUWC DIVNPT and to provide a design for HVAC system repairs, improvements and upgrades. The overall scope of work is to evaluate options for HVAC upgrades in each of the buildings, including roof penetrations and a wall penetration on Building 990. Note that roof access was not allowed at Building 1319 due to equipment emitting radiation. Also, due to security concerns, the laboratories were not assessed.

3.0 GENERAL SITE CONDITIONS

Building 990

Building 990 is 57,000 square foot and was constructed in 1975. It is a 6-story building that contains office space. The building is constructed of structural steel frame supported on concrete spread footings. The floor construction is composite metal deck with concrete fill and the roof construction is metal decking. The roof system is a flat EPDM membrane with rigid insulation overlaying an existing tar and gravel built up roof on rigid insulation. The roof EPDM system was recently repaired/replaced in 2014. The exterior building envelope consists of an exterior brick veneer with



reinforced concrete masonry (CMU) back up wall system. The exterior walls have continuous strip windows and punched windows.

The building is served by a roof mounted direct expansion air handling unit which only provides cooling and ventilation air during the summer season and a central station air handling unit in a first-floor mechanical room that provides cooling and heating air during the remaining time of the year. The distribution at each floor is provided through galvanized sheet metal ductwork to variable volume supply diffusers.

The building is supplied with medium pressure steam from a base wide steam system. The building has a steam to hot water heat exchangers which provides heating hot water. The heating hot water is pumped throughout the building in steel insulated piping. The hot water serves various terminal pieces of equipment including fin tube, unit heaters and provides heating hot water to the air handling unit that provides conditioned air to the office spaces. The cooling system includes water chillers and condensers which provides chilled water which is pumped throughout the building in steel insulated piping. Observed pipe insulation within the mechanical room and above drop ceilings on other floors primarily consist of fiberglass with some suspect ACM fittings. Additionally, mold was observed in the main mechanical room on pipes and equipment.

Building 1319

Building 1319 is 103,000 square feet and was constructed in 1996. It is a 3-story building that includes laboratory and office space. The building is constructed of structural steel frame supported on concrete spread footings. The floor construction is composite metal deck with concrete fill and the roof construction is structural light gage metal decking. The roof system is a flat EPDM roof membrane over tapered rigid insulation. The exterior building envelope consists of an exterior brick veneer with cold-formed light gage metal stud back up wall system. The exterior walls have continuous strip windows, punched windows, and a curtain wall system on the east building elevation. A large mechanical room with various forms of mechanical equipment including switchboards, generators, pumps, hot water boilers, HVAC, and various tanks. There is also a fire suppression system with piping that runs throughout the building. In addition, there is a 295-gallon AST filled with diesel fuel in the mechanical room. There are also several butane tanks stored throughout the room. The heating, ventilation, and air conditioning is central and contains fiberglass ducting. Pipe runs and elbows were insulated with fiberglass insulation.

The building is supplied with medium pressure steam from a base wide steam system which is directed to a steam to hot water heat exchangers which provides heating hot water. The heating hot water is pumped throughout the building in steel insulated piping. The hot water serves various terminal pieces of equipment including fin tube, unit heaters, lab fan coils and also provides heating hot water to the air handling unit that provides air conditioning to the office spaces. The cooling system includes indoor water chillers and closed-circuit cooling towers which produces chilled water which is pumped throughout the building in steel insulated piping.



The building is served by a central station air handling unit located in the basement which provides heating and cooling air to each floor office area through galvanized sheet metal ductwork to variable volume terminal units. The lab spaces are served by two pipe fan coil units for cooling with a dedicated central station air handler for ventilation located in the basement. CDW visually inspected the VFDs above the drop ceiling panels and did not observe any suspect ACM. Observed pipe and HVAC insulation within the mechanical room and above drop ceilings on other floors consist of fiberglass. Additionally, mold was observed in the main mechanical room on pipes and equipment.

Building 1351

Building 1351 is a 60,000 square foot building constructed in 2000. It is a 4-story building that includes office space. The building is constructed of structural steel frame supported on concrete spread footings. The floor construction is composite metal deck with concrete fill and the roof construction is structural light gage metal decking. The roof system is a flat EPDM roof membrane over tapered rigid insulation. The exterior building envelope consists of an exterior brick veneer with curtain wall light gage metal stud back up wall system. The exterior walls have continuous aluminum strip windows with tinted double wall glazing.

The building contains one large mechanical room with various forms of mechanical equipment including: air conditioning units, chilling units for water, generators, pumps, hot water boilers, HVAC, and air handling units. There is a concrete pit with piping that drops down approximately 12 feet that is confined space entry. The heating, ventilation, and air conditioning is central and contains fiberglass ducting. Pipe runs, elbows and fittings are insulated with fiberglass.

The building is supplied with medium pressure steam from a base wide steam system which is directed to a steam to hot water heat exchangers which produces heating hot water. The heating hot water is pumped throughout the building in steel insulated piping. The hot water serves various terminal pieces of equipment including fin tube, unit heaters and provides heating hot water to the various air handling units that provide conditioned air to the office spaces. The cooling system includes an air-cooled liquid chiller which produces chilled water that is pumped throughout the building in steel insulated piping. The chilled water serves the air handlers that are located at each floor. The roof mounted chiller was replaced in 2015. Each floor of the building is served by a central station air handling unit which provides heating and cooling air to office area through galvanized sheet metal ductwork to variable volume supply diffusers.

4.0 REPORTS REVIEW

CDW reviewed a report, titled "Asbestos Inspection for Building 990, 1319, 1320 and 1371," dated October 25, 2017 and prepared by EnviroMed Services, Inc. of Meridian, Connecticut (EnviroMed). CDW also reviewed the report "PCB Bulk Sampling for Building 990," dated March 6, 2008 and "Lead Paint Sampling for Buildings 990, 1319, 1320 and 1371," dated April 23, 2018 and prepared



by EnviroMed. Though the title of the report includes Buildings 990, 1319, 1320 and 1371, only data for Building 990 was included. Results of the EnviroMed surveys are summarized in the below table.

Building 990

Field ID	Material	Location	Result % Asbestos
990-1	Exterior Brick	Building 990 Exterior	ND
990-2	Exterior Mortar	Building 990 Exterior	ND
990-3	Exterior Expansion Joint Caulk	Building 990 Exterior	ND
990-4	Black Flashing Behind Brick	Building 990 Exterior	ND
990-5	Black Window Frame Caulk	Building 990 Exterior	ND
990-6	Black Window Glazing Putty	Building 990 Exterior	ND
990-7	Foam Insulation Behind Brick	Building 990 Exterior	ND
990-8	Ceiling Tiles	Building 990 Room 613	ND
990-9	Wallboard Joint Compound	Building 990 Room 613	ND
990-10, 990-11	Wallboard	Building 990 Room 613	ND
990-12	Carpet Glue	Building 990 Room 613	ND
990-13, 990-14	EPDM Roof Seam Cement	Building 990 Roof	ND
990-15	Pitch Box Cement	Building 990 Roof	ND
990-16, 990-17	White Flashing Caulk	Building 990 Roof	ND
S1, S2, S3	Spray Fireproofing	Building 990 Interior, Ceiling Mechanical Room and Above Ceilings Other Floors	ND

Field ID	Material	Location	Result % Asbestos
11-04-03902-001	Black Tar-Like; Black/Brown Fibrous; Brown Granular	Stair Tower Roof	ND
11-04-03902-002	Black Tar-Like; Black/Brown Fibrous; Brown Granular	Stair Tower Roof	<1%

5.0 ASBESTOS SURVEY

5.1 Methods

The investigative work for the asbestos survey included conducting a visual inspection of accessible areas of the area of mechanical rooms and behind brick façade of building 990 near louver next to mechanical room. The roofing materials were also sampled with the assistance of a contractor to core and repair roofing. Once the visual inspection was completed, the building components were categorized into homogeneous areas. CDW collected bulk samples of different homogeneous suspect materials for asbestos analysis. The bulk samples were delivered under chain of custody to Asbestos Identification Laboratory, Inc. (AIL) located in Woburn, Massachusetts. AIL is a state licensed (#AAL-121) and NVLAP-accredited laboratory (lab code #200919-0) for asbestos analysis. Bulk samples were analyzed for asbestos content by polarized light microscopy (PLM) using EPA Method 600/R-93/116. A positive stop method was used – if one sample in a homogeneous group is positive then additional samples of the same material are not analyzed. Samples analyzed to contain greater than 1% asbestos are to be treated as ACM as defined by the USEPA and Rhode Island Department of Environmental Management (RIDEM). The laboratory analytical reports are included in Appendix A.

5.2 Findings

The results of the laboratory analysis are provided in the below table.

Building 990

Field ID	Material	Location	Result % Asbestos
990-1A, 990-1B, 990-1C	Gray Fire Proofing	Ceiling, Main Mechanical Room	ND

Field ID	Material	Location	Result % Asbestos
990-2A, 990-2B, 990-2C	Gray Seam Sealant	On Fiberglass Pipe Fitting at Chilled Water Supply	5% Chrysotile
990-3A, 990-3B, 990-3C	Gray Flex Connector Cloth	On Large HVAC Unit – Mechanical Room	ND
990-4A, 990-4B, 990-4C	Pipe Insulation on Saddle Blocks	Main Mechanical Room – Near Chilled Water Supply	ND
990-5A, 990-5B, 990-5C	Mudded Pipe Fitting on Gaskets	HWS #1 & 2 at Pumps -Mechanical Room	ND
990-6A, 990-6B, 990-6C	White Insulation on Hot Water Tank	Main Mechanical Room	ND
990-7A, 990-7B, 990-7C	End Cap Sealant on 4” Diameter Fiberglass Fitting FG Fitting	1 st Floor – Above Ceiling	3% Chrysotile
990-8A, 990-8B, 990-8C	Penetration Sealant	Main Mechanical Room	ND
990-9A, 990-9B, 990-9C	2” Diameter Gray Pipe Fitting	1 st Floor above Ceiling	ND
990-10A, 990-10B, 990-10C	4” Diameter Gray Pipe Fitting	1 st Floor above Ceiling	ND
990-11A, 990-11B, 990-11C	Pipe Insulation Fitting	At Hot Water Tank Y Connection	ND
990-12A, 990-12B, 990-12C	Gray – White Cloth over HVAC	Main Mechanical Room	ND
990-13A, 990-13B	Gray Paper	Under Duct Pins on HVAC	ND
990-14A, 990-14B	Tan Paper Under Duct Pins	HVAC Mechanical Room	ND
990-Roof-1A	Gray Glue under Rubber	Roof Core – Near Roof Top Unit	ND
990-Roof-1B	Gray Paper	Top & Bottom Roof Foam	ND
990-Roof-1C	Gypsum Board	Roof Core – Near Roof Top Unit	ND
990-Roof-1D	Gray Paper	Top of Metal Roof Deck	ND
990-Roof-2A	Gray Glue under Rubber	Roof Core – Near Roof Top Unit	ND



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Field ID	Material	Location	Result % Asbestos
990-Roof-2B	Gray Paper Top & Bottom RD of Foam	Roof Core – Near Roof Top Unit	ND
990-Roof-2C	Gypsum Board	Roof Core – Near Roof Top Unit	ND
990-Roof-2D	Gray Paper	Top of Metal Roof Deck	ND
990-15A, 990-15B, 990-15C	Gray Mastic on Duct Pins	On Roof Top HVAC	ND
990-16A, 990-16B, 990-16C	Gray Skim Coat on Smooth Walls	Main Mechanical Room	ND
990-17A, 990-17B, 990-17C	Brown Glue under Black Foam Insulation	HVAC Roof Top Unit	ND
990-18A, 990-18B, 990-18C	Black Caulk on HVAC Door Dividing Insulated Side to Uninsulated Side	Roof Top Unit	ND
990-19	Gray Seam Sealant	Roof Top Unit	ND
990-20A, 990-20B	Black Repair Caulk	On Rubber – Roof Top HVAC Unit	ND
990-21A, 990-21B	Gray Mastic on Backup CMU Behind Black Flashing	Behind Brick Façade Near Louver Next to Main Mechanical Room Entrance	2% Chrysotile
990-22A, 990-22B	Black Flashing	Behind Brick Facade	ND

Building 1319

Field ID	Material	Location	Result % Asbestos
1319-1A, 1319-1B, 1319-1C, 1319-1D, 1319-1E	Gray Spray on Fire Proofing	Ceiling-Mechanical Room B02	ND

Field ID	Material	Location	Result % Asbestos
1319-2A, 1319-2B, 1319-2C, 1319-2D, 1319-2E, 1319-2F, 1319-2G	White End Cap Sealant	On Fiberglass Insulated Pipe Fittings- Mechanical Room B02 Collected From P-3, Steam, Vicarb, Roof Drain, Horizontal Steam, HWC Unit, OAHU #1	ND
1319-3A, 1319-3B	Tan Duct Pin Mastic	On HVAC near Workshop – Mechanical Room B02	ND
1319-4A, 1319-4B	Tan Duct Pin Mastic	On HVAC Unit LAHU – Mechanical Room B02	ND
1319-5A, 1319-5B	Tan Duct Pin Mastic	On HVAC Middle Rear Wall – Mechanical Room B02	ND
1319-6A, 1319-6B, 1319-6C	Brown Glue on Foam	P4 & P5 Mechanical Room B02	ND
1319-7A, 1319-7B, 1319-7C	White Cloth over Fiberglass Insulation	HWC Unit – Mechanical Room B02	ND
1319-8A, 1319-8B, 1319-8C	Gray Seam Sealant on OAHU & RAHU Units	OAHU & RAHU Units Mechanical Room B02	ND
1319-9A, 1319-9B, 1319-9C	Yellow Glue on Foil over Fiberglass Insulation	HWC Unit	ND
1319-10A, 1319-10B	Black Flex Connector	LAHU #2 Unit – Mechanical Room B02	ND
1319-11A, 1319-11B	Gray Seam Sealant	On LAHU Unit – Mechanical Room B02	ND

Building 1351

Field ID	Material	Location	Result % Asbestos
1351-1A, 1351-1B, 1351-1C	White Pipe Penetration Sealant	Mechanical Room 110	ND



Field ID	Material	Location	Result % Asbestos
1351-2A, 1351-2B, 1351-2C, 1351-2D, 1351-2E	Joint Compound	Walls - Mechanical Room 110	ND
1351-3A, 1351-3B, 1351-3C, 1351-3D, 1351-3E	Sheetrock	Mechanical Room 110	ND
1351-4A, 1351-4B, 1351-4C	White Pipe Insulation	Top of Pumps Mechanical Room 110	ND
1351-5A, 1351-5B, 1351-5C	White End Cap Sealant on 4" Diameter Fiberglass Pipe Fitting	Mechanical Room 110	ND
1351-6A, 1351-6B, 1351-6C	White End Cap Sealant on 2" Diameter Fiberglass Pipe Fitting	Mechanical Room 110	ND
1351-7A, 1351-7B	Tan Mastic on Duct Pins on HVAC	4 th Floor Mechanical Room	ND
1351-8A, 1351-8B, 1351-8C	Tan Paper under Duct Pins	Mechanical Room 110	ND
1351-9A, 1351-9B, 1351-9C	Gray Seam Sealant on HVAC	Mechanical Room 110	ND
1351-10A, 1351-10B	Gray Caulk on HVAC Seams	4 th Floor Mechanical Room	ND
1351-11A, 1351-11B	Red-Gray Penetration Sealant	4 th Floor Mechanical Room	ND
1351-12A, 1351-12B	Black Repair Caulk	On Roof Units EF-3 & EF-4	ND
1351-13A, 1351-13B	Gray Caulk on Roof AC Unit, Thick Wire	Roof	ND
1351-14A, 1351-14B	Gray Caulk on Metal Pipe Fittings	Roof	ND
1351-Roof-1A	Brown-Gray Paper under Rubber	Roof Core Near Roof Top Units	ND
1351-Roof-1B	Brown Paper Top & and Bottom Roof Foam	Roof Core Near Roof Top Units	ND
1351-Roof-1C	Brown-Gray Paper on Roof Deck	Roof Core Near Roof Top Units	ND
1351-Roof-2A	Brown-Gray Paper under Rubber	Roof Core Near Roof Top Units	ND



Field ID	Material	Location	Result % Asbestos
1351-Roof-2B	Brown Paper Top & Bottom Roof Foam	Roof Core Near Roof Top Units	ND
1351-Roof-2C	Brown-Gray Paper on Roof Deck	Roof Core Near Roof Top Units	ND

ND = Not Detected

Chrysotile = Asbestos Mineral

5.3 Recommendations

Prior to disturbance, the ACM identified must be abated by a Rhode Island licensed asbestos abatement contractor following all federal, state & local regulations governing asbestos abatement. A copy of the asbestos waste shipment record must be received within 30 days of removal from the Site. Asbestos air quality sampling must be conducted under USEPA and RIDOH regulations following asbestos abatement and prior to re-occupancy of the spaces. If additional materials are discovered that have not been sampled, those materials should be considered ACMs until laboratory analysis determines otherwise. Additionally, all abatement programs must follow the requirements outlined in the Unified Facilities Guide Specifications.

6.0 LEAD-BASED PAINT

6.1 Methods

CDW performed a visual inspection of painted surfaces. CDW collected samples from different color paints on various types of building component substrates. Samples were submitted to EMSL Laboratories in Cinnaminson, New Jersey for analysis via Atomic Absorption Spectrometry (AAS).

6.2 Findings

The laboratory results are listed below. The laboratory analytical reports are included in Appendix B.

Building 990

Sample ID	Location	Lead Concentration (% Weight)
LP-1	White Paint on Concrete Skim in Mechanical Lounge	<0.0080



Sample ID	Location	Lead Concentration (% Weight)
LP-2	Vanilla/Gray Paint on CMU Walls Mechanical Floor	<0.0080
LP-3	White Paint on HVAC Metal Mechanical Room	0.020
LP-4	Black/Red Paint on Duct Frame in Mechanical Room	4.0
LP-5	Red/Black Paint on Steel Beam Support on Roof HVAC	<0.0080
LP-6	Roof Over Black Paint on Mechanical Roof Top Unit	<0.0080

Building 1319

Sample ID	Location	Lead Concentration (% Weight)
LP-1	Gray Paint on Metal Pumps Lower level	<0.0080

Building 1351

Sample ID	Location	Lead Concentration (% Weight)
LP-1	Black/Brown Paint on Steel Large HVAC Unit	<0.0080
LP-2	Black/Brown Paint on Raised Steel Pumps	<0.0080

EnviroMed's "Lead Paint Sampling for Buildings 990, 1319, 1320 and 1371," dated April 23, 2018 results are listed in the below tables.

Building 990

Sample ID	Location	Lead Concentration (% Weight)
Pb1-990	Wallboard Paint Building 990 Room 613	<0.0098

Sample ID	Location	Lead Concentration (% Weight)
Pb2-990	Wallboard Paint Building 990 Room 613	<0.0089
Pb3-990	Lintel Paint Building 990 Exterior	2.6443
Pb4-990	Lintel Paint Building 990 Exterior	2.1022
Pb5-990	Dunnage Paint Building 990 Roof	<0.0089

Building 1319

Sample ID	Location	Lead Concentration (% Weight)
Pb1-1319	Vinyl Base Building 1319 Room 351	<0.0068
Pb2-1319	Vinyl Base Building 1319 Room 227	<0.0074
Pb3-1319	Lintel Paint Building 1319 Exterior	0.1884
Pb4-1319	Lintel Paint Building 1319 Exterior	0.0592
Pb5-1319	Wallboard Paint Building 1319 Room 351	<0.0091
Pb6-1319	Wallboard Paint 1319 Room 227	<0.0086

The Environmental Protection Agency (EPA) and US Department of Housing and Urban Development definitions defines LBP as any paint or surface coating that contains lead equal to exceeding one milligram per square centimeter (1.0 mg/cm²) or 0.5% by weight. U.S. Navy defines any percentage of lead above laboratory limits of detection detected as “lead-containing paint.”

Lead containing paint consists of:

- White paint on HVAC metal in Mechanical Room in Building 990
- Lintel paint building 990 exterior
- Lintel paint building 1319 exterior

Lead based paint consists of:

- Black/Red paint on duct frame in mechanical room Building 990

6.3 Recommendations

Based on the conclusions of this testing, the following recommendations are offered:

- In accordance with the EPA Lead Renovation, Repair, and Painting (RRP) Rule 40 CFR 745, workers, visitors, and the public must be protected from lead dust generated during the demolition of LBP or LCP coated surfaces.
- During demolition or renovation, paint materials containing lead should not be sanded, scraped, drilled, or otherwise altered unless proper engineering controls are used to prevent migration of fugitive lead containing dust from the work area. Under OSHA regulations, any demolition or renovation to be performed at a structure where lead in paint and dust is present must be performed in accordance with a worker protection policy, including, but not limited to, appropriate training, medical monitoring, respiratory protection, and other protective equipment. Comply with guidelines outlined in specifications UFGS-028313 and UFGS-028319.
- In addition to the worker protection requirements stipulated by OSHA and Military, RIDOH and the USEPA regulate the disposal of wastes that are potentially hazardous. Such wastes may include paint chips and residue generated during abatement or repainting work, or whole components, that are coated with LBP and that are disposed of as the result of renovation or demolition work. To determine the required method for disposing of permeable items coated with LBP, the RIDOH and the USEPA require representative sampling of the debris to determine the quantity of lead that would be expected to leach into the environment if the debris were disposed of in a landfill. The representative sample(s) must be analyzed by the Toxicity Characteristic Leaching Process (TCLP) to determine the proper disposal method.
- Those components/colors not tested, or in locations not inventoried in this report, should be tested for lead content prior to disturbance that may cause airborne release of lead.

7.0 POLYCHLORATED BIPHENYLS

7.1 Methods

CDW conducted a visual inspection for suspect PCB containing building materials at the Site buildings. The samples were submitted to Phoenix Environmental Laboratories in Manchester, Connecticut for analysis via EPA Method 8082 with Soxhlet extraction 3540C. A copy of the PCB laboratory reports are provided in Appendix C.

7.2 Findings

The PCB analytical results are summarized in the below tables.

Building 990

Sample ID	Location	Concentration (mg/kg)
PCB-1	Yellow CMU Paint Mechanical Room	ND
PCB-2	Black Caulk Roof HVAC	ND
PCB-3	White Paint on Steel HVAC	ND
PCB-4	Black Repair Caulk - Roof	ND

Building 1319

Sample ID	Location	Concentration (mg/kg)
PCB-1	Gray Seam Sealant on HVAC	ND
PCB-2	Black Foam Insulation	ND
PCB-3	Red Caulk	ND
PCB-4	White Caulk	ND

Building 1351

Sample ID	Location	Concentration (mg/kg)
PCB-1	Gray/Brown Paint Mech. Room	ND
PCB-2	Gray Caulk HVAC Seams	ND
PCB-3	Penetration Caulk Mechanical Room	ND

EnviroMed's "PCB Bulk Sampling" dated March 6, 2008 results are listed in the below table.

Location	Material Sampled	PCB Content (mg/kg)
Building 990 Exterior - South	Gray Exterior Sealant Brick to Brick	ND
Building 990 Exterior - South	Black Interior Window Frame Caulk	ND
Building 990 Exterior - South	Black Exterior Window Glazing Putty	ND
Building 990 Exterior - North	Brown Exterior Door Frame Caulk	ND
Building 990 Exterior - South	Black Exterior Window Frame Caulk	ND

The analytical results are compared to the USEPA standard of 50 milligrams per kilograms (mg/kg), which is the threshold for bulk product waste, as defined by USEPA 40 CFR § 761.3, and regulated under the Toxic Substances Control Act (TSCA). None of the samples contain PCBs greater than 50 mg/kg.

8.0 HAZARDOUS MATERIALS SURVEY

8.1 Methods

CDW visually inspected the Site building for universal, special, and hazardous wastes associated with building materials. These included but were not limited to the following:

- Mercury-containing devices (fluorescent light tubes, thermostats, gauges, etc.);
- Polychlorinated bi-phenyl (PCB)-containing articles, equipment, and devices (light ballasts, electrical switches, etc.);
- Chlorofluorocarbon (CFC)-containing equipment (refrigerants, air conditioners/HVAC equipment, water bubblers, etc.)
- Tritium-containing devices (exit signs);
- Lead-Acid batteries (emergency lights, etc.); and
- Pressurized-cylinders (fire extinguishers, etc.).

8.2 Findings

The visual survey for hazardous materials identified mercury-containing light tubes, electronic ballasts, mercury containing switches and thermostats, oil-filled gauges, lead and tritium batteries, refrigerants and other hazardous materials. No hazardous materials sampling or analysis was conducted as part of this preliminary survey. A list of OHMs identified are included in the table below.

Building 990

Material Description	Location	Est. Quantity	Units
Electronic Ballasts	Main Mechanical Room and Small Mechanical Room M1	40	Each
Mercury Containing Light Tubes-Compact Fluorescent and Straight Tubes	Mechanical Room	80	Each
Exit Signs (Tritium)	Main Mechanical Room	2	Each
Mercury Thermostats and Oil Filled Gauges	Mechanical Room, and M1	60	Each
Emergency Lights with Batteries	Mechanical Room, and M1	3	Each
Refrigerants	HVAC, Roof Unit	1	Unit
Glycol	Main Mechanical Room	2	Drums
Acetylene Tanks	Main Mechanical Room	8	Each



Building 1319

Material Description	Location	Est. Quantity	Units
Electronic Ballasts	Mechanical Room	60	Each
Mercury Containing Light Tubes-Compact Fluorescent and Straight Tubes	Mechanical Room	120	Each
Exit Signs (Tritium)	Main Mechanical Room	2	Each
Mercury Thermostats and Oil Filled Gauges	Mechanical Room	80	Each
Emergency Lights with Batteries	Mechanical Room	2	Each
Refrigerants (R134a)	2 Chillers in Mechanical Room, Roof Unit	3	Each
Glycol	Mechanical Room	12 17	Drums (Full) Drums (Empty)
Acetylene Tanks	Mechanical Room	10	Each
Diesel Above Ground Storage Tank	Mechanical Room	1	295-Gallon

Building 1351

Material Description	Location	Est. Quantity	Units
Electronic Ballasts	Main Mechanical Room	40	Each
Mercury Containing Light Tubes-Compact Fluorescent and Straight Tubes	Mechanical Room, Offices, Conference Room	80	Each

Material Description	Location	Est. Quantity	Units
Exit Signs (Tritium)	Main Mechanical Room	2	Each
Mercury Thermostats and Oil Filled Gauges	Mechanical Room	60	Each
Emergency Lights with Batteries	Mechanical Room, and M1	2	Each
Refrigerants	HVAC, Roof Unit	1	Unit

9.3 Recommendations

Prior to removal, light tubes, ballasts, lead and tritium batteries, thermostats and switches will require proper handling, removal, transportation and off-site recycling/reclamation. Acetylene cylinders and refrigerants must be transported and disposed in accordance with state, federal and military regulations. Additionally, all items identified in the above table shall be collected and properly disposed of prior to renovation activities at the Site and comply with guidelines outlined in the USGS specifications.

Due to visible mold associated with piping and other mechanical components in Buildings 990, 1319 and 1351, a limited mold survey is also recommended.

Limitations

The conclusions are limited to the information available at the time of the field survey and the scope of services, as defined. No subsurface soil or groundwater sampling and analysis was performed. Where access to portions of the Site or to structures on the site was unavailable or limited, CDW renders no opinion as to the presence of hazardous material or the presence of indirect evidence related to hazardous material in that portion of the site or structure. This report cannot be solely relied upon for renovation or demolition. The sampling performed forms the basis for conclusions expressed and areas inaccessible for testing limits those conclusions. No other conclusions, interpretations or recommendations are contained or implied in this report other than those expressed. While CDW followed industry standards during the inspection, we do not warrant that all suspect hazardous building materials were identified in or on the buildings and shall not be held liable related to future abatement costs related to hazardous materials that are either not discovered



or not appropriately characterized. This is due in part to inherent problems with every building inspection, such as, but not limited to:

- Seemingly homogeneous materials that are not in fact homogeneous;
- Seemingly representative locations that are not in fact representative;
- Layered materials that are not uniformly present or are isolated;
- Materials that are present and accessible but were not considered to be hazardous,
- Materials that are present in an isolated and limited quantity; and
- Material that is present in locations that are unsafe or otherwise difficult to access.

Client acknowledges that CDW's inspection is limited, and all hazardous materials may only become apparent during future renovation or demolition. During future renovation/demolition work, it is likely that additional hazardous materials or materials suspected of being hazardous will be identified. Such materials should be assumed to be hazardous unless appropriate evaluation or sampling and analysis demonstrate otherwise. No other use of this report is warranted without the written consent of CDW Consultants, Inc.

APPENDIX A



Asbestos Identification Laboratory

165 New Boston St., Ste 227

Woburn, MA 01801

781-932-9600

Web: www.asbestosidentificationlab.com

Email: mikemanning@asbestosidentificationlab.com

Batch:

58954



December 28, 2020

Susan Cahalan
CDW Consultants, Inc.
6 Huron Drive
Natick, MA 01760

Project Name: Building 990, NVWC Newport Naval Base, RI
Project Number:
Date Sampled: 2020-11-24
Work Received: 2020-12-21
Work Analyzed: 2020-12-28

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

Dear Susan Cahalan,

Asbestos Identification Laboratory has completed the analysis of the samples from your office for the above referenced project. The information and analysis contained in this report have been generated using the EPA /600/R-93/116 Method for the Determination of Asbestos in Bulk Building Materials. Materials or products that contain more than 1% of any kind or combination of asbestos are considered an asbestos containing building material as determined by the EPA. This Polarized Light Microscope (PLM) technique may be performed either by visual estimation or point counting. Point counting provides a determination of the area percentage of asbestos in a sample. If the asbestos is estimated to be less than 10% by visual estimation of friable material, the determination may be repeated using the point counting technique. The results of the point counting supersede visual PLM results. Results in this report only relate to the items tested. This report may not be used by the customer to claim product endorsement by NVLAP or any other U.S. Government Agency.

Laboratory results represent the analysis of samples as submitted by the customer. Information regarding sample location, description, area, volume, etc., was provided by the customer. Asbestos Identification Laboratory is not responsible for sample collection activities or analytical method limitations. Unless notified in writing to return samples, Asbestos Identification Laboratory discards customer samples after 30 days. Samples containing subsamples or layers will be analyzed separately when applicable. Reports are kept at Asbestos Identification Laboratory for three years. This report shall not be reproduced, except in full, without the written consent of Asbestos Identification Laboratory.

- NVLAP Lab Code: 200919-0
- Massachusetts Certification License: AA000208
- State of Connecticut, Department of Public Health Approved Environmental Laboratory Registration Number: PH-0142
- State of Maine, Department of Environmental Protection Asbestos Analytical Laboratory License Number: LB-0078(Bulk) LA-0087(Air)
- State of Rhode Island and Providence Plantations. Department of Health Certification: AAL-121
- State of Vermont, Department of Health Environmental Health License AL934461

Thank you Susan Cahalan for your business.

Michael Manning
Owner/Director

Susan Cahalan
CDW Consultants, Inc.
6 Huron Drive
Natick, MA 01760

Project Name: Building 990, NVWC Newport Naval Base,
RI

Project Number:

Date Sampled: 2020-11-24

Work Received: 2020-12-21

Work Analyzed: 2020-12-28

Analysis Method: BULK PLM ANALYSIS EPA/600/R-93/116

FieldID LabID	Material	Location	Color	Non-Asbestos %	Asbestos %
990-1A	Gray Fire Proofing	Ceiling, Main Mechanical Room	gray	Cellulose 10	None Detected
655301				Other 5 Non-Fibrous 85	
990-1B	Gray Fire Proofing	Ceiling, Main Mechanical Room	gray	Cellulose 10	None Detected
655302				Other 5 Non-Fibrous 85	
990-1C	Gray Fire Proofing	Ceiling, Main Mechanical Room	gray	Cellulose 10	None Detected
655303				Other 5 Non-Fibrous 85	
990-2A	Gray Seam Sealant	On Fiberglass Pipe Fitting @ Chilled Water Supply	gray	Non-Fibrous 95	Detected Chrysotile 5
655304					
990-2B	Gray Seam Sealant	On Fiberglass Pipe Fitting @ Chilled Water Supply			Not Analyzed
655305					
990-2C	Gray Seam Sealant	On Fiberglass Pipe Fitting @ Chilled Water Supply			Not Analyzed
655306					
990-3A	Gray Flex Connector Cloth	On Large HVAC Unit - Mechanical Room	gray	Cellulose 95	None Detected
655307				Non-Fibrous 5	
990-3B	Gray Flex Connector Cloth	On Large HVAC Unit - Mechanical Room	gray	Cellulose 95	None Detected
655308				Non-Fibrous 5	
990-3C	Gray Flex Connector Cloth	On Large HVAC Unit - Mechanical Room	gray	Cellulose 95	None Detected
655309				Non-Fibrous 5	
990-4A	Pipe Insulation on Saddle Blocks	Main Mechanical Room	white	Synthetic 10	None Detected
655310				Non-Fibrous 90	
990-4B	Pipe Insulation on Saddle Blocks	Main Mechanical Room	white	Mineral Wool 10	None Detected
655311				Synthetic 10 Non-Fibrous 80	
990-4C	Pipe Insulation on Saddle Blocks	Main Mechanical Room	white	Synthetic 5	None Detected
655312				Non-Fibrous 95	
990-5A	Mudded Pipe Fitting on Gaskets	HWS #1 & 2 Mechanical Room	gray	Fiberglass 20	None Detected
655313				Mineral Wool 30 Cellulose 10 Non-Fibrous 40	

FieldID	Material	Location	Color	Non-Asbestos %		Asbestos %
LabID						
990-5B	Mudded Pipe Fitting on Gaskets	HWS #1 & 2 Mechanical Room	gray	Fiberglass	20	None Detected
655314				Mineral Wool	30	
				Cellulose	10	
				Non-Fibrous	40	
990-5C	Mudded Pipe Fitting on Gaskets	HWS #1 & 2 Mechanical Room	gray	Fiberglass	20	None Detected
655315				Mineral Wool	30	
				Cellulose	10	
				Non-Fibrous	40	
990-6A	White TSI on Hot Water Tank	Main Mechanical Room	white	Fiberglass	5	None Detected
655316				Cellulose	10	
				Non-Fibrous	85	
990-6B	White TSI on Hot Water Tank	Main Mechanical Room	white	Fiberglass	5	None Detected
655317				Cellulose	10	
				Non-Fibrous	85	
990-6C	White TSI on Hot Water Tank	Main Mechanical Room	white	Fiberglass	5	None Detected
655318				Cellulose	10	
				Non-Fibrous	85	
990-7A	End Cap Sealant on 4" 0 FG Fitting	1st Floor	white	Non-Fibrous	97	Detected Chrysotile 3
655319						
990-7B	End Cap Sealant on 4" 0 FG Fitting	1st Floor				Not Analyzed
655320						
990-7C	End Cap Sealant on 4" 0 FG Fitting	1st Floor				Not Analyzed
655321						
990-8A	Penetration Sealant	Main Mechanical Room	white	Non-Fibrous	100	None Detected
655322						
990-8B	Penetration Sealant	Main Mechanical Room	white	Non-Fibrous	100	None Detected
655323						
990-8C	Penetration Sealant	Main Mechanical Room	white	Non-Fibrous	100	None Detected
655324						
990-9A	2" 0 Gray Pipe Fitting	1st Floor above Ceiling	gray	Fiberglass	20	None Detected
655325				Mineral Wool	30	
				Non-Fibrous	50	
990-9B	2" 0 Gray Pipe Fitting	1st Floor above Ceiling	gray	Fiberglass	20	None Detected
655326				Mineral Wool	30	
				Non-Fibrous	50	
990-9C	2" 0 Gray Pipe Fitting	1st Floor above Ceiling	gray	Fiberglass	20	None Detected
655327				Mineral Wool	30	
				Non-Fibrous	50	
990-10A	4" 0 Gray Pipe Fitting	1st Floor above Ceiling	gray	Fiberglass	20	None Detected
655328				Mineral Wool	20	
				Non-Fibrous	60	
990-10B	4" 0 Gray Pipe Fitting	1st Floor above Ceiling	gray	Fiberglass	20	None Detected
655329				Mineral Wool	20	
				Non-Fibrous	60	
990-10C	4" 0 Gray Pipe Fitting	1st Floor above Ceiling	gray	Fiberglass	20	None Detected
655330				Mineral Wool	20	
				Non-Fibrous	60	

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
990-11A	Pipe Insulation Fitting	At Hot Water Tank Y Connection	gray	Fiberglass 20	None Detected
655331				Mineral Wool 20 Non-Fibrous 60	
990-11B	Pipe Insulation Fitting	At Hot Water Tank Y Connection	gray	Fiberglass 20	None Detected
655332				Mineral Wool 20 Non-Fibrous 60	
990-11C	Pipe Insulation Fitting	At Hot Water Tank Y Connection	gray	Fiberglass 20	None Detected
655333				Mineral Wool 20 Non-Fibrous 60	
990-12A	Gray - White Cloth over HVAC	Main Mechanical Room	gray	Cellulose 95	None Detected
655334				Non-Fibrous 5	
990-12B	Gray - White Cloth over HVAC	Main Mechanical Room	gray	Cellulose 95	None Detected
655335				Non-Fibrous 5	
990-12C	Gray - White Cloth over HVAC	Main Mechanical Room	gray	Cellulose 95	None Detected
655336				Non-Fibrous 5	
990-13A	Gray Paper	Under Duct Pins on HVAC	gray	Fiberglass 10	None Detected
655337				Cellulose 80 Non-Fibrous 10	
990-13B	Gray Paper	Under Duct Pins on HVAC	gray	Fiberglass 10	None Detected
655338				Cellulose 80 Non-Fibrous 10	
990-14A	Tan Paper under Duct Pins	HVAC Mechanical Room	tan	Cellulose 90	None Detected
655339				Non-Fibrous 10	
990-14B	Tan Paper under Duct Pins	HVAC Mechanical Room	tan	Cellulose 90	None Detected
655340				Non-Fibrous 10	
990-Roof-1A	Gray Glue under Rubber	Roof Core	gray	Cellulose 60	None Detected
655341				Non-Fibrous 40	
990-Roof-1B	Gray Paper	Top & Bottom Roof Foam	gray	Fiberglass 10	None Detected
655342				Cellulose 80 Non-Fibrous 10	
990-Roof-1C	Gypsum Board	Roof Core	gray	Cellulose 20	None Detected
655343				Non-Fibrous 80	
990-Roof-1D	Gray Paper	Top of Metal Roof Deck	gray	Fiberglass 10	None Detected
655344				Cellulose 80 Non-Fibrous 10	
990-Roof-2A	Gray Glue under Rubber	Roof Core	gray	Cellulose 60	None Detected
655345				Non-Fibrous 40	
990-Roof-2B	Gray Paper Top & Bottom RD of Foam	Roof Core	gray	Fiberglass 10	None Detected
655346				Cellulose 80 Non-Fibrous 10	
990-Roof-2C	Gypsum Board	Roof Core	white	Cellulose 30	None Detected
655347				Non-Fibrous 70	
990-Roof-2D	Gray Paper	Top of Metal Roof Deck	gray	Fiberglass 10	None Detected
655348				Hair 80 Non-Fibrous 10	

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
990-15A	Gray Mastic on Duct Pins	On HVAC	black	Cellulose 5 Non-Fibrous 95	None Detected
655349					
990-15B	Gray Mastic on Duct Pins	On HVAC	black	Cellulose 5 Non-Fibrous 95	None Detected
655350					
990-15C	Gray Mastic on Duct Pins	On HVAC	black	Cellulose 5 Non-Fibrous 95	None Detected
655351					
990-16A	Gray Skim Coat on Smooth Walls	Main Mechanical Room	gray	Non-Fibrous 100	None Detected
655352					
990-16B	Gray Skim Coat on Smooth Walls	Main Mechanical Room	gray	Non-Fibrous 100	None Detected
655353					
990-16C	Gray Skim Coat on Smooth Walls	Main Mechanical Room	gray	Non-Fibrous 100	None Detected
655354					
990-17A	Gray Skim Coat on Smooth WallsBrown Glue under Balck Foam	HVAC Roof Unit	brown	Non-Fibrous 100	None Detected
655355					
990-17B	Gray Skim Coat on Smooth WallsBrown Glue under Balck Foam	HVAC Roof Unit	brown	Non-Fibrous 100	None Detected
655356					
990-17C	Gray Skim Coat on Smooth WallsBrown Glue under Balck Foam	HVAC Roof Unit	brown	Non-Fibrous 100	None Detected
655357					
990-18A	Black Caulk on HVAC Duct	Roof Unit	black	Non-Fibrous 100	None Detected
655358					
990-18B	Black Caulk on HVAC Duct	Roof Unit	black	Non-Fibrous 100	None Detected
655359					
990-18C	Black Caulk on HVAC Duct	Roof Unit	black	Non-Fibrous 100	None Detected
655360					
990-19	Gray Seam Sealant	Roof Top Unit	gray	Non-Fibrous 100	None Detected
655361					
990-20A	Black Repair Caulk	On Rubber - Roof Top HVAC Unit	black	Non-Fibrous 100	None Detected
655362					
990-20B	Black Repair Caulk	On Rubber - Roof Top HVAC Unit	black	Non-Fibrous 100	None Detected
655363					
990-21A	Gray Mastic on Black Flashing	Behind Brick Facade	gray	Non-Fibrous 98	Detected Chrysotile 2
655364					
990-21B	Gray Mastic on Black Flashing	Behind Brick Facade	gray		Not Analyzed
655365					
990-22A	Black Flashing	Behind Brick Facade	black	Non-Fibrous 100	None Detected
655366					

FieldID	Material	Location	Color	Non-Asbestos %	Asbestos %
LabID					
990-22B	Black Flashing	Behind Brick Facade	black	Non-Fibrous 100	None Detected
655367					

Client: CDU Consultants

Address: Leavenworth Drive, Natick MA

Project Site & #: Building 990, Natick, Newport

Phone / email address: Naval Base, RI

Scehalang consultants, Inc

Contact: Susan Cehalan

Relinquish by date: 12/17/20

Received by date: 12/21/20

of Samples Received: 67

CHAIN OF CUSTODY

EPA/600/R-93/116

Asbestos Identification Lab

165 New Boston St.

Suite 227

Woburn, MA 01801

(781)932-9600

www.asbestosidentificationlab.com

Date Sampled: 11/24/2020



Page 1 of 14

Turnaround Time Sample Method

☐ Less 3 Hrs

☒ Bulk

☐ Same Day

☐ Soil

☐ Next Day

☐ Wipe

☒ 24 (24) Hr

☐ Point Count

Stop on 1st Positive? Yes No for all

Notify Method: Mail/E-Mail/Verbal

Analyzed By: [Signature]

Date: 12/22/2020

RI

Non-Asbestos Percentage (%)

Lab ID#
(Lab Use Only)

Field ID/
(Client
Reference)

Temp in Celsius = 22

Stereo Scope

Optical Properties

RI

Non-Asbestos Percentage (%)

Material / Location

% of Asbestos

Color

Homogeneity

Texture

Friable

Asbestos
Minerals

Asbestos %

Morphology

Extinction

Sign of
Elongation

Birefringence

Pleochroism

||

⊥

Fiberglass

Mineral Wool

Cellulose

Hair

Synthetic

Other

Non-Fibrous

655301
990-
1A

Material
Gray fireproofing
Location
Building Main
Mechanics Room

0.5%
Color
Homogeneity
Texture
Friable

Chrysotile	
Amosite	
Crocidolite	
Tremolite	
Anthophyllite	
Actinolite	

Cellulose	✓
Hair	
Synthetic	
Other	
Non-Fibrous	5 85

02
990-
1B

Material
" "
Location
" "

0.8%
Color
Homogeneity
Texture
Friable

Chrysotile	
Amosite	
Crocidolite	
Tremolite	
Anthophyllite	
Actinolite	

Cellulose	✓
Hair	
Synthetic	
Other	
Non-Fibrous	5 85

03
990-
1C

Material
" "
Location
" "

0.8%
Color
Homogeneity
Texture
Friable

Chrysotile	
Amosite	
Crocidolite	
Tremolite	
Anthophyllite	
Actinolite	

Cellulose	✓
Hair	
Synthetic	
Other	
Non-Fibrous	5 85

[illegible]

B 990

Page 3 of 14

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius =	Stereo Scope					Optical Properties							RI	Non-Asbestos Percentage (%)							
		Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
09	990-3C	Material " " Location "	0.85	~		fs		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite											48	4			5
10	990-4A	Material Pipe Insulation on Saddle Blocks Location Main Mechanical Room	0.6	~		gfy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite												10	0		90
11	990-AB	Material " " Location "	0.6	fs		gfy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite										10		10	0		80
12	990-AC	Material " " Location "	0.6	~		gfy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite													5		95
13	990-SA	Material Mudded pipe fitting on gaskets Location HWS #1 + 2 Mech Room	0.88	fs		fs		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite											20	1	12		4

B990

Page 7 of 14

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius = ____	Stereo Scope					Optical Properties							RI	Non-Asbestos Percentage (%)						
Material / Location		% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
14	990-5B	Material " " Location " "	0.58	✓	sh		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									1	1	12				8
15	990-5C	Material " " Location " "	0.58	✓	sh		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									1	1	12				8
16	990-6A	Material White-TSE on HOT WATER TANK Location Main Mecklen	0.4	✓	sh		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									5		10				85
17	990-6B	Material " " Location " "	0.4	✓	sh		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									1		12				85
18	990-6C	Material " " Location " "	0.4	✓	sh		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									1		12				85

[illegible]

[illegible]

B 990

Page 7 of 14

Lab ID# (Lab Use Only)	Field ID/ (Client Reference)	Temp in Celcius =	Stereo Scope					Optical Properties							RI	Non-Asbestos Percentage (%)							
	Material / Location		% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals	Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	+	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous
29	990-103 " " Location "		0%	~		shy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									20	20					60
30	990-10C " " Location "		0%	~		shy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									20	20					60
31	990-11A " " Location "at Hot Water Tank" " Connection"		0%	~		shy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									20	20					60
32	990-11B " " Location "		0%	~		shy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									20	20					60
33	990-11C " " Location "		0%	~		shy		Chrysotile Amosite Crocidolite Tremolite Anthophyllite Actinolite									20	20					60

[illegible]

[illegible]

6990

Page 10 of 14

Lab ID# (Lab Use Only)		Temp in Celcius = ____		Stereo Scope					Optical Properties										Non-Asbestos Percentage (%)								
Field ID/ (Client Reference)	Material / Location	% of Asbestos	Color	Homogeneity	Texture	Friable	Asbestos Minerals					Asbestos %	Morphology	Extinction	Sign of Elongation	Birefringence	Pleochroism	=	⊥	Fiberglass	Mineral Wool	Cellulose	Hair	Synthetic	Other	Non-Fibrous	
44 990- Roof- ID	Material Gypsum paper Location Metal Roof Deck	0	Wh	Y	Y	Y	Chrysotile													I		8					60
45 990- Roof- 2A	Material Gaul gne Location Metal Roof Deck	0	Wh	Y	Y	Y	Chrysotile																				60
46 990- Roof- 2B	Material Gaul paper Top + Bottom Location Metal Roof Deck	0	Wh	Y	Y	Y	Chrysotile													I		8					60
47 990- Roof- 2C	Material Gypsum Board Location Metal Roof Deck	0	Wh	Y	Y	Y	Chrysotile															30					60
48 990- Roof- 2D	Material Gaul paper Location Metal Roof Deck	0	Wh	Y	Y	Y	Chrysotile													I		8					60

[illegible]

[illegible]

[illegible]

DNA

APPENDIX B

**EMSL Analytical, Inc.**

200 Route 130 North, Cinnaminson, NJ 08077

Phone/Fax: (856) 303-2500 / (856) 786-5974

<http://www.EMSL.com>cinnaminsonleadlab@emsl.com

EMSL Order: 202011549

CustomerID: CDWC26

CustomerPO:

ProjectID:

Attn: **Susan Cahalan**
CDW Consultants
6 Huron Drive
Natick, MA 01760

Phone: (508) 875-2657
Fax:
Received: 12/21/20 9:00 AM
Collected: 11/24/2020

Project: **Building 990 NUWC Newport Naval Base****Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)***

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Weight</i>	<i>Lead Concentration</i>
LP-1	202011549-0001	11/24/2020	12/28/2020	0.2651 g	<0.0080 % wt
Site: white paint on concrete skin mechanical lounge					
LP-2	202011549-0002	11/24/2020	12/28/2020	0.2711 g	<0.0080 % wt
Site: vanilla / gray paint on cmu walls mechanical floor					
LP-3	202011549-0003	11/24/2020	12/28/2020	0.2523 g	0.020 % wt
Site: white paint HVAC mechanical rm					
LP-4	202011549-0004	11/24/2020	12/28/2020	0.2547 g	4.0 % wt
Site: black / red paint on duct frame in mechanical room					
LP-5	202011549-0005	11/24/2020	12/28/2020	0.2513 g	<0.0080 % wt
Site: red / black paint on steel beam support on roof HVAC					
LP-6	202011549-0006	11/24/2020	12/28/2020	0.2744 g	<0.0080 % wt
Site: roof over black paint on mechanical roof top unit					

Phillip Worby, Lead Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted.

Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NELAP Certifications: NJ 03036, NY 10872, PA 68-00367, AIHA-LAP, LLC ELLAP 100194, A2LA 2845.01

Initial report from 12/29/2020 10:24:27



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING
LABORATORY • PRODUCTS • TRAINING

Lead (Pb) Chain of Custody

EMSL Order ID (Lab Use Only):

202011549

Cinnaminson, NJ 08077

PHONE: 1-800-220-3675

FAX: (856) 786-5974

Company: CDW Consultants		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 6 Huron Drive		Third Party Billing requires written authorization from third party	
City: Natick	State/Province: MA	Zip/Postal Code: 01760	Country: US
Report To (Name): susan cahalan		Telephone #: 5088752657	
Email Address: scahalan@cdwconsultants.com		Fax #:	Purchase Order:
Project Name/Number: Building 990 NUWC ^{Newport Naval Base}		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
U.S. State Samples Taken: RI		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour
<input type="checkbox"/> 72 Hour	<input checked="" type="checkbox"/> 96 Hour	<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week
*Analysis completed in accordance with EMSL's Terms and Conditions located in the Price Guide			
Matrix	Method	Instrument	Reporting Limit
Chips <input checked="" type="checkbox"/> % by wt. <input type="checkbox"/> mg/cm ² <input type="checkbox"/> ppm (mg/kg)	SW846-7000B	Flame Atomic Absorption	0.01%
Air	NIOSH 7082	Flame Atomic Absorption	4 µg/filter
	NIOSH 7105	Graphite Furnace AA	0.03 µg/filter
	NIOSH 7300M/NIOSH 7303	ICP-OES	0.5 µg/filter
Wipe* <input type="checkbox"/> ASTM <input type="checkbox"/> non ASTM <input type="checkbox"/> *If no box checked, non-ASTM Wipe assumed	SW846-7000B	Flame Atomic Absorption	10 µg/wipe
	SW846-6010B or C	ICP-OES	1.0 µg/wipe
TCLP	SW846-1311/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW846-1311/7000B/SM 3111B	ICP-OES	0.1 mg/L (ppm)
SPLP	SW846-1312/7000B/SM 3111B	Flame Atomic Absorption	0.4 mg/L (ppm)
	SW846-1312/7000B/SM 3111B	ICP-OES	0.1 mg/L (ppm)
TTLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	40 mg/kg (ppm)
	22 CCR App. II, SW846-6010B or C	ICP-OES	2 mg/kg (ppm)
STLC	22 CCR App. II, 7000B/7420	Flame Atomic Absorption	0.4 mg/L (ppm)
	22 CCR App. II, SW846-6010B or C	ICP-OES	0.1 mg/L (ppm)
Soil	SW846-7000B	Flame Atomic Absorption	40 mg/kg (ppm)
	SW846-6010B or C	ICP-OES	2 mg/kg (ppm)
Wastewater Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	SM3111B/SW846-7000B	Flame Atomic Absorption	0.4 mg/L (ppm)
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.7	ICP-OES	0.020 mg/L (ppm)
Drinking Water Unpreserved <input type="checkbox"/> Preserved with HNO ₃ pH < 2 <input type="checkbox"/>	EPA 200.8	ICP-MS	0.001 mg/L (ppm)
	EPA 200.9	Graphite Furnace AA	0.003 mg/L (ppm)
	EPA 200.5	ICP-OES	0.003 mg/L (ppm)
TSP/SPM Filter	40 CFR Part 50	ICP-OES	12 µg/filter
	40 CFR Part 50	Graphite Furnace AA	3.6 µg/filter
Other:			
Name of Sampler: Susan Cahalan		Signature of Sampler: [Signature]	
Sample #	Location	Volume/Area	Date/Time Sampled
LP-1	white paint on concrete skin mechanical room		11/24/2020
LP-2	Vanilla/gray paint on cmu walls mechanical room		11/24/2020
Client Sample #s: -		Total # of Samples: -	
Relinquished (Client): [Signature]	Date: 12/18/2020	Time:	
Received (Lab): [Signature]	Date: 12/21/2020	Time: 9am	
Comments: 1 week tat; client notified. 12/21/2020 (LP)			

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

B 990

EMSL ORDER ID (Lab Use Only):

202011549

FAX: (856) 786-5974

[illegible]

APPENDIX C



Tuesday, December 22, 2020

Ms. Susan Cahalan
CDW Consultants, Inc
6 Huron Dr
Natick, MA 01760

Project ID: BUILDING 990 NUWC NAVAL BASE NEWPORT RI
SDG ID: GCH33086
Sample ID#s: CH33086 - CH33089

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
UT Lab Registration #CT00007
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Sample Id Cross Reference

December 22, 2020

SDG I.D.: GCH33086

Project ID: BUILDING 990 NUWC NAVAL BASE NEWPORT RI

Client Id	Lab Id	Matrix
PCB-1 YELLOW CMU PAINT MECH. RO	CH33086	BULK
PCB-2 BLACK CAULK ROOF HVAC	CH33087	CAULK
PCB-3 WHITE PAINT ON STEEL HVAC	CH33088	BULK
PCB-4 BLACK CAULK REPAIR ROOFTO	CH33089	CAULK



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 22, 2020

FOR: Ms. Susan Cahalan
CDW Consultants, Inc
6 Huron Dr
Natick, MA 01760

Sample Information

Matrix: BULK
Location Code: CDW-PCB
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
11/24/20	9:20
12/16/20	15:10

Laboratory Data

SDG ID: GCH33086
Phoenix ID: CH33086

Project ID: BUILDING 990 NUWC NAVAL BASE NEWPORT RI
Client ID: PCB-1 YELLOW CMU PAINT MECH. ROOM

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				12/16/20	-/JJ/KL/C/SW3540C	

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1221	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1232	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1242	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1248	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1254	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1260	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1262	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1268	ND	0.98	mg/Kg	2	12/18/20	SC	SW8082A

QA/QC Surrogates

% DCBP	70	%	2	12/18/20	SC	30 - 150 %
% DCBP (Confirmation)	68	%	2	12/18/20	SC	30 - 150 %
% TCMX	63	%	2	12/18/20	SC	30 - 150 %
% TCMX (Confirmation)	64	%	2	12/18/20	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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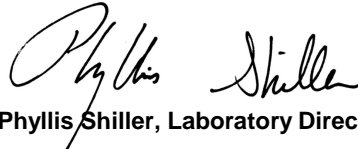
RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

December 22, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 22, 2020

FOR: Ms. Susan Cahalan
CDW Consultants, Inc
6 Huron Dr
Natick, MA 01760

Sample Information

Matrix: CAULK
Location Code: CDW-PCB
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

<u>Date</u>	<u>Time</u>
11/24/20	10:30
12/16/20	15:10

Laboratory Data

SDG ID: GCH33086
Phoenix ID: CH33087

Project ID: BUILDING 990 NUWC NAVAL BASE NEWPORT RI
Client ID: PCB-2 BLACK CAULK ROOF HVAC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				12/16/20	-/JJ/KL/C/SW3540C	

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1221	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1232	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1242	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1248	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1254	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1260	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1262	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1268	ND	0.72	mg/Kg	2	12/21/20	SC	SW8082A

QA/QC Surrogates

% DCBP	65	%	2	12/21/20	SC	30 - 150 %
% DCBP (Confirmation)	59	%	2	12/21/20	SC	30 - 150 %
% TCMX	46	%	2	12/21/20	SC	30 - 150 %
% TCMX (Confirmation)	44	%	2	12/21/20	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

December 22, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 22, 2020

FOR: Ms. Susan Cahalan
CDW Consultants, Inc
6 Huron Dr
Natick, MA 01760

Sample Information

Matrix: BULK
Location Code: CDW-PCB
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date Time

11/24/20 11:00
12/16/20 15:10

Laboratory Data

SDG ID: GCH33086
Phoenix ID: CH33088

Project ID: BUILDING 990 NUWC NAVAL BASE NEWPORT RI
Client ID: PCB-3 WHITE PAINT ON STEEL HVAC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Extraction for PCB	Completed				12/16/20	-/JJ/KL/C/SW3540C	

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1221	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1232	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1242	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1248	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1254	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1260	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1262	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A
PCB-1268	ND	0.96	mg/Kg	2	12/18/20	SC	SW8082A

QA/QC Surrogates

% DCBP	76	%	2	12/18/20	SC	30 - 150 %
% DCBP (Confirmation)	68	%	2	12/18/20	SC	30 - 150 %
% TCMX	74	%	2	12/18/20	SC	30 - 150 %
% TCMX (Confirmation)	72	%	2	12/18/20	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
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RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

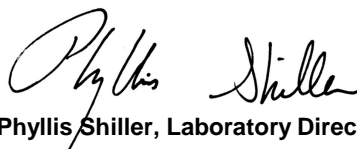
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

December 22, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report

December 22, 2020

FOR: Ms. Susan Cahalan
CDW Consultants, Inc
6 Huron Dr
Natick, MA 01760

Sample Information

Matrix: CAULK
Location Code: CDW-PCB
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: CP
Analyzed by: see "By" below

Date Time

11/24/20 11:30
12/16/20 15:10

Laboratory Data

SDG ID: GCH33086
Phoenix ID: CH33089

Project ID: BUILDING 990 NUWC NAVAL BASE NEWPORT RI
Client ID: PCB-4 BLACK CAULK REPAIR ROOFTOP HVAC

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Caulk Extraction for PCB	Completed				12/16/20	-/JJ/KL/C/SW3540C	

PCB (Soxhlet SW3540C)

PCB-1016	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1221	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1232	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1242	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1248	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1254	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1260	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1262	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A
PCB-1268	ND	0.75	mg/Kg	2	12/21/20	SC	SW8082A

QA/QC Surrogates

% DCBP	54	%	2	12/21/20	SC	30 - 150 %
% DCBP (Confirmation)	49	%	2	12/21/20	SC	30 - 150 %
% TCMX	34	%	2	12/21/20	SC	30 - 150 %
% TCMX (Confirmation)	33	%	2	12/21/20	SC	30 - 150 %

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
-----------	--------	------------	-------	----------	-----------	----	-----------

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Results are reported on an ``as received`` basis, and are not corrected for dry weight.

PCB Comment:

For PCBs, in order to reach the desired RL, multiple cleanup steps were performed. The extract was cleaned up with a combination of sulfuric acid, potassium permanganate, copper powder and additional florisil.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

December 22, 2020

Reviewed and Released by: Rashmi Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

QA/QC Report

December 22, 2020

QA/QC Data

SDG I.D.: GCH33086


Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 557011 (mg/Kg), QC Sample No: CH33088 10X (CH33086, CH33087, CH33088, CH33089)										
Polychlorinated Biphenyls - Bulk										
PCB-1016	ND	0.17	79	78	1.3				40 - 140	30
PCB-1221	ND	0.17							40 - 140	30
PCB-1232	ND	0.17							40 - 140	30
PCB-1242	ND	0.17							40 - 140	30
PCB-1248	ND	0.17							40 - 140	30
PCB-1254	ND	0.17							40 - 140	30
PCB-1260	ND	0.17	83	84	1.2				40 - 140	30
PCB-1262	ND	0.17							40 - 140	30
PCB-1268	ND	0.17							40 - 140	30
% DCBP (Surrogate Rec)	93	%	90	90	0.0				30 - 150	30
% DCBP (Surrogate Rec) (Confirm)	95	%	93	94	1.1				30 - 150	30
% TCMX (Surrogate Rec)	83	%	79	79	0.0				30 - 150	30
% TCMX (Surrogate Rec) (Confirm)	83	%	81	81	0.0				30 - 150	30

Comment:

A LCS and LCS Duplicate were performed instead of a matrix spike and matrix spike duplicate.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference


Phyllis Shiller, Laboratory Director
December 22, 2020

Tuesday, December 22, 2020

Criteria: None

State: RI

Sample Criteria Exceedances Report

GCH33086 - CDW-PCB

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
--------	-------	-----------------	----------	--------	----	----------	----------------	-------------------

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Comments

December 22, 2020

SDG I.D.: GCH33086

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

PCB Narration

AU-ECD1 12/18/20-1: CH33086, CH33088

The following Continuing Calibration compounds did not meet % deviation criteria:

Samples: CH33086

Preceding CC D18B024 - DCBP SURR 52%H (15%), PCB 1260 31%H (%)

Succeeding CC D18B038 - None.



Temp	Pg
Data Delivery/Contact Options:	

001MPJ000/04025

Project: Building 990, N/MLC, Naval Pro: _____
Report to: Ryan Chahal Base: Newport, RI
Invoice to: CNA Consultants

This section MUST be completed with Bottle Quantities.

Analysis Request

Matrix Code:
 DW=Drinking Water GW=Ground Water SW=Surface Water WW=Waste Water
 RW=Raw Water SE=Sediment SL=Sludge S=Soil SD=Solid W=Wipe Oil=Oil
 B=Bulk L=Liquid X=(Other)

PHOENIX USE ONLY	SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled
33086	P88-1	Yellow CMV Paint Wich. & adam	SD	11/24/2000	0930
33087	P88-2	Black Caulk Roof HVAC	SD	11/24/2000	1030
33088	P88-3	White Paint on Steel HVAC	SD	11/24/2000	1100
33089	P88-4	Black Repair Roof Caulk HVAC	SD	11/24/2000	1150

Relinquished by:	Accepted by:	Date:	Time:
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RI	<input type="checkbox"/>	(Residential)
	<input type="checkbox"/>	(Comm/Industrial) Direct Exposure
	<input type="checkbox"/>	GA Leachability
	<input type="checkbox"/>	GB Leachability
	<input type="checkbox"/>	GA-GW Objectives
	<input type="checkbox"/>	GB-GW Objectives

CT	<input type="checkbox"/> RCP Cert	<input type="checkbox"/> GW Protection	<input type="checkbox"/> SW Protection	<input type="checkbox"/> GA Mobility	<input type="checkbox"/> GB Mobility	<input type="checkbox"/> Residential DEC	<input type="checkbox"/> I/C DEC	<input type="checkbox"/> Other
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MA ☐ MCP Certification ☐ MWRA eSMART ☐ S-1 10% CALC

☐ GW-1 ☐ GW-2 ☐ GW-3

☐ S-1 GW-1 ☐ S-1 GW-2 ☐ S-1 GW-3

☐ S-2 GW-1 ☐ S-2 GW-2 ☐ S-2 GW-3

☐ S-3 GW-1 ☐ S-3 GW-2 ☐ S-3 GW-3

☐ SW Protection

amples were collected: RI

Data Format

☐ Excel
☐ PDF
☐ GIS/Key
☐ EQUIS
☐ Other

Data Package

☐ Tier II Chee
☐ Full Data F
☒ Phoenix S
☐ Other

****MS/MSD are considered site samples and will be billed as such in accordance with the prices quoted.**

State where samples were collected:

*** SURCHARGE APPLIES**

APPENDIX D

Photographs

Building 990



**ACM Containing Gray Seam Sealant on Fiberglass Fitting-
Mechanical Room**



Roof Core – Non-ACM



Behind Brick Cut – ACM Gray Mastic Located Behind the Flashing



Roof Top Unit – No ACM Detected on Components



Mold – Mechanical Room



ACM in Seam Sealant on Fiberglass Pipe Fitting Above Ceiling 1st Floor