

SUSTAINABLE ENVIRONMENT, ENERGY, HEALTH & SAFETY PROFESSIONAL SERVICES

Sent via email to:

jobrien@fairbanks.us

August 15, 2023

NORTECH, Inc.

City of Fairbanks
Engineering Department
800 Cushman Street

Fairbanks, AK 99701

ATTN: John O'Brien

RE: Limited Hazardous Materials Testing – HUD Compliant Lead Survey Child Care Renovations at City Hall - Fairbanks, Alaska

John:

NORTECH Sustainable Environment, Energy, Health & Safety Professional Services is pleased to provide the City of Fairbanks with this limited hazardous materials survey results summary for the survey we performed as part of the proposed renovations to the classrooms on the first floor of City Hall. The report provides a synopsis of the background, scope of work, methodology, field activities, sampling results with discussion, including conclusions and recommendations.

Background

The area of proposed renovation at City Hall is approximately 3,500 square-feet, and includes three classrooms, two bathrooms, a janitor's closet, and a storage closet. The Main school building was built in 1934 and enlarged in 1939 and again in 1948. The building was used as a school until the early 1970s. The building has housed city offices since 1994. In addition to city offices, the former school gymnasium is home to the Fairbanks Boys and Girls Club.

Scope of Work

The City of Fairbanks requested a hazardous materials survey of the facility be performed on the first floor of the northwest wing of City Hall as part of a renovation project to convert the area into a licensed childcare facility. **NORTECH**'s scope of work was to provide a hazardous materials survey to identify potential hazardous items to human health or the environment and require special handling or disposal during renovation of the facility.

Methodology

The Pre-Demolition Hazardous Materials Assessment involved a review of available records, interviews with knowledgeable individuals, a site inspection, and sampling of conditions present to identify, quantify, and determine the condition of hazardous materials. Project efforts were completed in accordance with *NORTECH*'s Hazardous Material Assessment Methodology (v19) available upon request. The field project sampling staff were EPA-certified AHERA asbestos inspectors. An Environmental Professional Engineer oversaw the assessment work.

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Field Activities

Danielle Frick and Janine Way of **NORTECH** completed the hazardous materials inspection of the facility on July 26, 2023.

The northwest first floor wing of the building includes three classrooms, women's and men's restrooms, a janitor's closet, and a storage closet. These areas were sampled for suspect asbestos and lead in paint. PCB samples were collected from materials set for demolition and disposal. Asbestos samples were taken from flooring, mastic, base trim, joint compound, ceiling tile and thermal system insulation (TSI) on piping. Most of the walls in the area are stucco with joint compound texture. In Classroom 3, the dividing walls are wood framed with unpainted sheetrock and wood paneling. There is a drop ceiling with grid in Classroom 3. The flooring in the main corridor connecting the classrooms and bathrooms has an epoxy coating that acts as an encapsulant for assumed asbestos containing tiles.

Asbestos Containing Material

A total of 28 bulk samples of suspect asbestos materials were collected and submitted to EMSL Analytical Inc. in Cinnaminson, New Jersey, for analysis by EPA 600/R-93/116 using Polarized Light Microscopy (PLM). EMSL is certified through the National Voluntary Laboratory Accreditation Program (NVLAP). Samples considered non-organically bound (mastics, glues, and tarry substances), were analyzed by PLM with gravimetric reduction to determine asbestos content more accurately, if present.

Following the receipt of lab results additional samples were taken of possible ACM around ceiling tiles in Classroom. Sample locations and results are presented in Figures 3 and 4 and the laboratory report is included in Attachment 3.

Lead-Based Paint

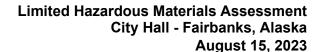
A total of 37 paint locations/materials were analyzed for lead content using a handheld NITON XLP-303A X-Ray Fluorescence (XRF) instrument providing real-time EPA approved results. Samples were taken in all proposed renovation areas. Painted building components included walls, trim, painted floors, and doors. Interior sample locations and results are presented on Figures 5, 6, and 7.

PCBs in Paint

Five paint chip samples were collected and submitted to EMSL Analytical Inc. in Cinnaminson, New Jersey, for PCB analysis by EPA Method SW3540C/8082A PCBs. PCBs are quantified as "Aroclors" in analytical work. Aroclor was the tradename for PCB mixtures manufactured by the Monsanto Chemical Company. EMSL reports nine Aroclors in the units of milligrams per kilogram (mg/Kg, or parts per million [ppm]). The sample locations are shown in Figure 8 and the laboratory report is included in Attachment 3.

Other Materials Requiring Special Handling

The areas sampled were inspected for other materials that may require special handling during the renovation work including fluorescent lamps, thermostats, portable fire extinguishers, leadacid batteries, and other potentially hazardous materials.





Sample Results and Discussion

Asbestos Containing Material

Twenty-eight bulk samples were sent to EMSL with a total of 41 layers analyzed. The asbestos containing materials are summarized below:

• Friable (RACM)

TSI on bathroom heating pipes
 48 Linear feet

Non-Friable (Category I)

Flooring tiles
 Black Mastic
 Approximately 2500 sq ft
 Approximately 2500 sq ft

Non-Friable (Category II)

None Detected

Unlabeled thermal systems insulation (TSI) was found in both Restroom 1 and 2 and was positive for asbestos. TSI covers radiator supply and return piping from ceiling to near ground level. TSI with greater than 1% asbestos is considered a Regulated Asbestos-Containing Material (RACM). RACM is any asbestos-containing material that when dry, can be crumbled or reduced to powder by hand pressure. If it can be crumbled it is called "friable". Friable ACM requires abatement by certified asbestos abatement workers using OSHA Class I methods. Friable asbestos that is damaged or severely damaged, or found as debris, presents a high potential for possible exposures above the Occupational Safety and Health Administration (OSHA) permissible exposure limit (PEL) of 0.1 fibers per cubic centimeter (f/cm³).

RACM requiring removal must be disposed at a landfill permitted to accept RACM wastes if the volume exceeds EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP) guidance. If the total amount of regulated asbestos to be removed or disturbed exceeds 260 linear feet, 160 square feet, or 35 cubic feet then the NESHAP requires regulated asbestos-containing material to be removed from the waste stream before renovation activities occur. Based on the amount of RACM observed in the vicinity of the project work area, the total amount of RACM is not expected to exceed the NESHAP threshold.

Non-friable ACM is divided into Category I and Category II materials. Category 1 asbestos present includes flooring tiles and mastic under carpet throughout the classrooms. If removed non-friable Category I asbestos will require demolition/abatement by certified asbestos workers using Class II OSHA methods and disposal as ACM debris. Any abatement or demolition activities should be completed under a project-specific work plan developed by the contractor to meet state and federal requirements.

The laboratory reported one sample layer taken from the ceiling tiles in Classroom 2 as asbestos containing glazing. The area was reinspected for the suspect ACM and several additional samples were taken from the area to verify the presence of ACM. Based on the additional lab analysis, sample C2-BA-10 has been removed from the data tables and laboratory report because it was not reproducible.

Alternatively, ACM materials may be managed in place (MIP). The EPA has guidance for facilities that choose to develop and maintain an Operations and Maintenance (O&M) plan that consists of training, cleaning, work practices, and surveillance to maintain ACM in good condition within buildings. Encapsulation, encasement, enclosure, or repair are viable alternatives to removal. MIP approaches should be considered before deciding to abate and



remove the currently undamaged ACM. When ACM is properly managed, release of fibers into the air is prevented or minimized, and the risk of asbestos related disease can be reduced to a negligible level. Managing ACM in place has an ongoing maintenance cost in addition to the eventual abatement costs. Required asbestos MIP maintenance and documentation must not be neglected or forgotten to ensure future workers do not unknowingly use work practices that result in potential asbestos disturbance and exposure.

In the event that a new (untested) suspect ACM is encountered during the project, the material must be tested to determine the appropriate handling and disposal methods or assumed to be ACM.

Lead-Based Paint

Three lead results were above the HUD threshold of 1 mg/cm², with a high of 2.1 mg/cm² indicating lead paint is present in this wing of the building. A light green primer appeared to be the lead containing paint. This is visible in some locations and has been painted over with other colors in other locations. The green primer was found primarily in the hallway and not in the classrooms.

City Hall was built before 1978 and will require a HUD compliant lead survey prior to the facility being used as a childcare facility. The HUD Compliant assessment will look for lead-based paint in areas potentially disturbed by the proposed renovations. The assessment must be conducted by an EPA certified Lead Inspector and will follow Chapter 4 of the HUD Guidelines, 40 CFR Part 745 Subpart E, and 29 CFR 1926-6. The report for the HUD compliant survey will be separate from this report.

PCBs in Paint

Five paint chip samples were collected and submitted for PCB analysis. Five samples were reported positive for PCBs and are listed as the following:

- C2-PCB-1 white with yellow layers paint on stucco wall
 - Aroclor-1254 5.2 mg/kg
 - Aroclor-1262 0.85 mg/kg
 - Total Aroclor count 6.05 mg/kg
- BC-PCB-2 tan/ green/ blue on wood bathroom stalls
 - Aroclor-1254 3.3 mg/kg
 - Aroclor-1260 0.40 mg/kg
 - Total Aroclor count 3.7 mg/kg
- BB-PCB-3 white paint on wood bathroom stalls
 - Aroclor-1254 2.1 mg/kg
 - Aroclor-1262 0.33 mg/kg
 - Total Aroclor count 2.43 mg/kg
- JC-PCB-4 Orange over green paint janitors closet door
 - Aroclor-1254 2.1 mg/kg
 - o Aroclor-1260 0.24 mg/kg
 - o Total Aroclor count 2.34 mg/kg
- JC-PCB-5 white paint on janitor closet door
 - Aroclor-1254 5.6 mg/kg
 - Aroclor-1260 1.2 mg/kg
 - Total Aroclor count 6.8 mg/kg



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These lab results indicate that levels of PCBs above 1 mg/kg are present on the bathroom stalls, doors, and walls in the proposed renovation area. Within Alaska PCB concentration between 1 ppm and 50 ppm are treated as "polluted soil". Per regulation, Alaska landfills currently will not accept any PCB material > 1 ppm. While the official regulations do allow disposal of materials with a PCB concentration <1 ppm, most disposal facilities in Alaska have reportedly refused to accept materials containing any detectable PCBs. The contractor is required to verify with the chosen disposal landfill operator that the landfill permit accepts PCB waste below 1 ppm prior to disposal of the waste stream to avoid any potential regulatory concerns. Segregation of unpainted wastes is recommended to minimize the quantity of material that requires disposal outside the State of Alaska.

PCB related demolition activities pose a health risk to workers. EPA warns metals coated with paints containing PCBs should not be cut with flame, as the temperatures produced by the cutting may produce highly toxic polychlorinated dibenzofurans (PCDFs) that can be up to 100 times more toxic than certain PCBs. Other activities that may also be considered high risk include welding, sandblasting, burning, grinding, and sanding, which may elevate the temperature of the paint to unsafe levels or cause significant dusting. Planned demolition activities must be done in accordance with a project specific plan that minimizes potential worker exposure and provides the public with confidence that PCBs are not being released from the demolition activities.

Other Materials Requiring Special Handling

The area was inspected for other items and components that may require special handling during the renovation work a summary table is provided below:

Mercury Containing Fluorescent Lamps (T-12 Tube 4')
 48 ea.

Consider reusing the identified hazardous items/materials. If not reused, the items require proper disposal at an approved facility according to local, state, and federal requirements. If exit signs are removed as part of the project, they should be inspected for labeling that indicates the presence of a radioactive source. If the signs contain tritium, they must be disposed of at a facility with proper licensing. Two light fixtures were inspected for PCB containing ballasts. Both ballasts were labeled "no PCBs". All fixtures that will be removed should be inspected prior to disposal.



Conclusions and Recommendations

NORTECH completed a Hazardous Materials Survey of the northwest first floor wing and City Hall as part of a potential renovation project for a licensed childcare facility. Based on this inspection, **NORTECH** has the following conclusions and recommendations for renovation activities at the facility:

- Asbestos containing materials were identified in this area and an asbestos work plan is necessary for renovation activities.
 - Friable ACM (RACM) requires abatement by certified asbestos abatement workers using OSHA Class I methods
 - Category II ACM requires abatement by certified asbestos abatement workers using OSHA Class II methods
 - Management in place (MIP) requires City Hall to maintain an Operations and Maintenance (O&M) plan that consists of training, cleaning, work practices, and surveillance to maintain ACM in good condition within buildings.
- Lead above the HUD limit was found in the green paint in the storage closet
 - Lead based paint was identified in this work area
 - A HUD compliant lead survey is required for childcare facilities that were built before 1978
- PCBs were detected in paint on the bathroom stalls, doors and walls of the renovation area.
 - o Concentrations of the bulk samples were above 1 mg/kg
 - The coatings are considered PCB waste and should be disposed of outside the State of Alaska
 - Workers and contractors performing work on these materials should have appropriate PCB training and certifications for the type of work
 - The contractor is required to verify with the chosen disposal landfill operator to avoid regulatory concerns
- Project design documents should require the contractor to submit a work plan prior to renovations detailing the following:
 - Asbestos work plan and disposal methods
 - Lead based paint work plan
 - PCB handling and disposal methods
- Other potential hazardous items observed include the fluorescent lighting
 - These should be reused to the extent practical
 - Each ballast must be inspected for PCB labeling
 - Items designated as wastes must be removed from the building before renovation activities and disposed of properly

This information should be incorporated into the renovation design documents, which should include specific directions to the bidders as to whether the materials will be reused as part of the project or may be salvaged by the contractor. These design documents should require a demolition/renovation work plan for all planned abatement and/or demolition activities. This work plan should identify salvageable items, address hazardous material to be handled and disposed of, address all non-hazardous waste streams, identify work practices methods, and means, and identify disposal locations for all waste streams.



Limited Hazardous Materials Assessment City Hall - Fairbanks, Alaska August 15, 2023

All information about hazardous materials associated with the facility should be made available to employees, contractors, and/or abatement/demolition contractors bidding on the expected renovation on the facility. This hazardous materials assessment report is intended for informational purposes only. Specific abatement work practices may require additional sampling to comply with OSHA worker exposure regulatory guidelines.

If you have any questions or require additional professional services or advice, please let us know. We thank you for the opportunity to work with you on this project and appreciate your confidence in our Firm.

Sincerely, **NORTECH**

Danielle Frick AHERA Inspector

Lame Frek

Peter Beardsley, PE

Blar Booksey

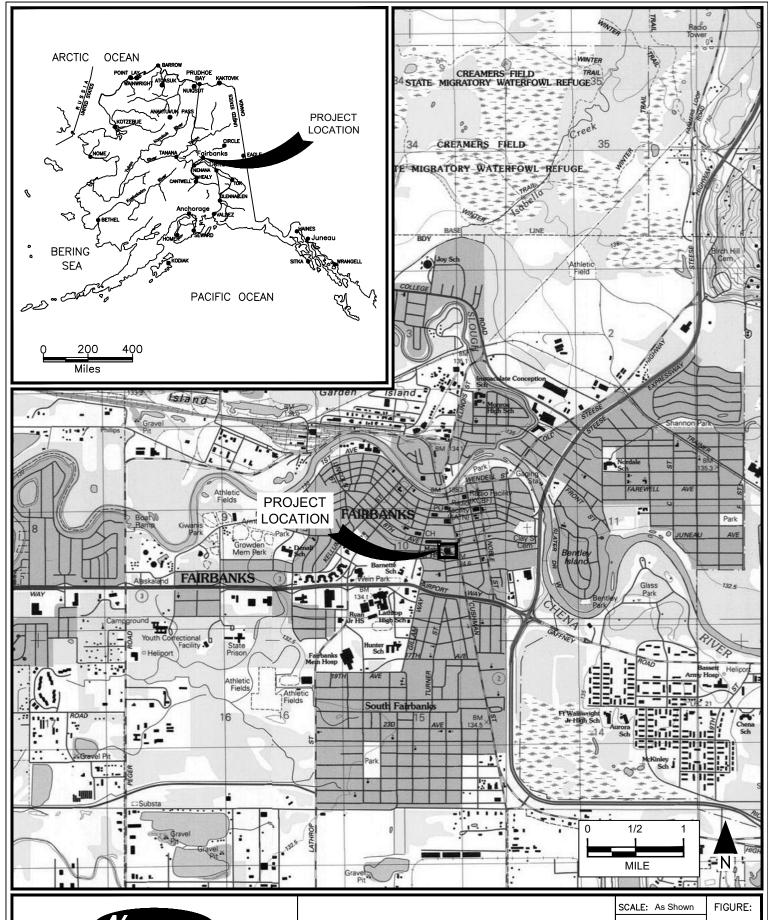
President and CEO, Environmental Engineer

Attachments: 1) Figures

2) Photo Pages

3) Laboratory Reports (Asbestos and PCBs in Paint)

Attachment 1 Figures



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Child Care Renovation - Hazardous Materials Assessment City Hall, Fairbanks, Alaska

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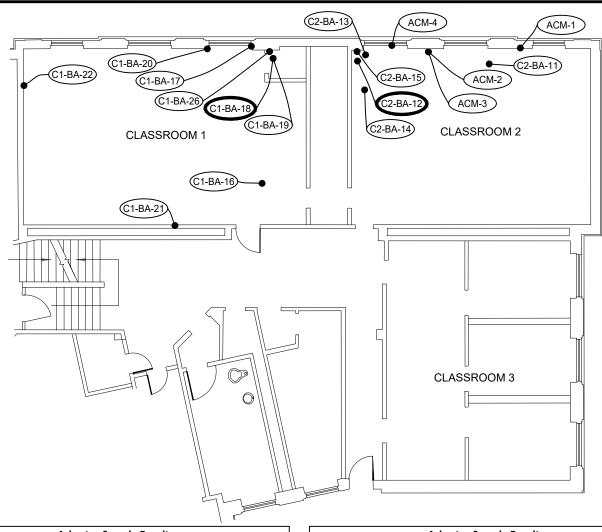




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Child Care Renovation - Hazardous Materials Assessment City Hall, Fairbanks, Alaska

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Asbestos Sample Results			
Ask	pestos Sample Results (Method EPA 600/R-	93/116)	
Sample ID	Description	Result	
C1-BA-16	brown/white ceiling tile	ND	
C1-BA-17	white/yellow pipe insulation & mastics	ND	
C1-BA-18	gray floor tile	7.2% Chrysotile	
C1-BA-18	black & yellow mastic	ND	
C1-BA-19	black & yellow mastic	ND	
C1-BA-20	tan/white joint compound	ND	
C1-BA-20	white caulk	ND	
C1-BA-21	white wall texture	ND	
C1-BA-22	white tall texture	ND	
C1-BA-26	gray/white stucco	ND	

Asbestos Sample Results			
As	bestos Sample Results (Method EPA 6	00/R-93/116)	
Sample ID	Description	Result	
C2-BA-11	brown/white ceiling tile	ND	
C2-BA-12	gray floor tile	6.6% Chrysotile	
C2-BA-12	black mastic	<0.25% Chrysotile	
C2-BA-13	black caulk	ND	
C2-BA-14	orange carpet & yellow mastics	ND	
C2-BA-15	yellow pipe insulation & mastics	ND	
ACM-1	white sealant	ND	
ACM-2	white mastic	ND	
ACM-3	white sealant	ND	
ACM-4	white patch sealant	ND	

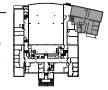


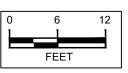
ABC

ASBESTOS BULK SAMPLE LOCATIONS NEGATIVE (<1% ASBESTOS)

ASBESTOS BULK SAMPLE LOCATIONS POSITIVE (≥1% ASBESTOS)

SEE ASBESTOS TABULATED RESULTS FOR ACM SAMPLE NUMBER







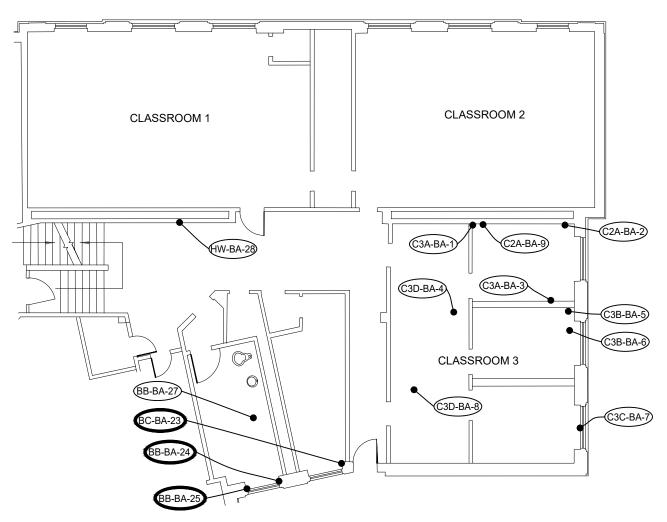


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Classroom 1 & 2

Asbestos Sample Locations & Results
Child Care Renovation - Hazardous Materials Assessment
City Hall, Fairbanks, Alaska

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Asbestos Sample Results		
Asbestos Sar	mple Results (Method E	PA 600/R-93/116)
Sample ID	Description	Result
BC-BA-23	white/green TSI	30% Amosite, 8% Chrysotile
BB-BA-24	brown/gray/tan TSI	50% Chrysotile
BB-BA-25	white TSI	30% Amosite, 10% Chrysotile
BB-BA-27	beige cove base & yellow mastic	ND
HW-BA-28	white texture	ND

Asbestos Sample Results				
	Asbestos Sample Results (Method EPA 600/R-93/116)			
Sample ID	Description	Result		
C3A-BA-1	brown cove base	ND		
C3A-BA-2	gray/white ceiling tile - Type 1	ND		
C3A-BA-3	gray/white ceiling tile - Type 2	ND		
C3D-BA-4	gray/white ceiling tile - Type 3	ND		
C3B-BA-5	yellow pipe insulation & mastics	ND		
C3B-BA-6	gray floor tile	5.5% Chrysotile		
C3B-BA-6	black mastic	2.3% Amosite, 3.4% Chrysotile		
C3C-BA-7	brown carpet & yellow mastic	ND		
C3D-BA-8	gray floor tile	5.8% Chrysotile		
C3D-BA-8	black mastic	<0.25% Chrysotile		
C3A-BA-9	white/black mastic	ND		



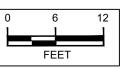
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ASBESTOS BULK SAMPLE LOCATIONS NEGATIVE (<1% ASBESTOS)

ASBESTOS BULK SAMPLE LOCATIONS POSITIVE (>1% ASBESTOS)

SEE ASBESTOS TABULATED RESULTS FOR ACM SAMPLE NUMBER







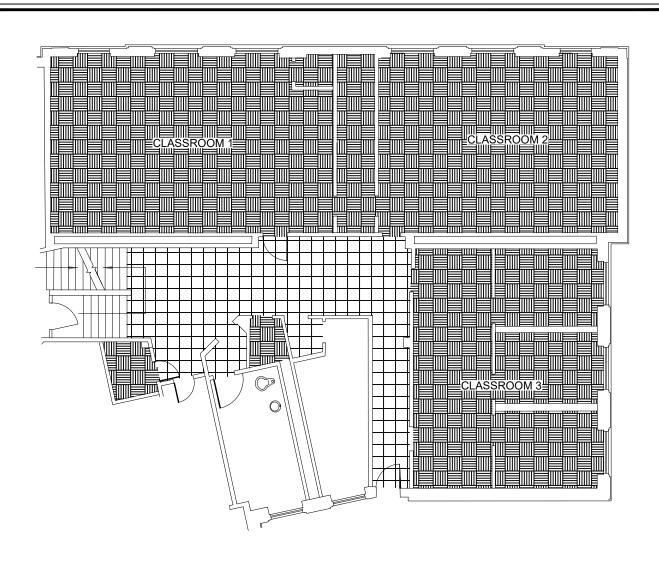
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Asbestos Sample Locations & Results
Child Care Renovation - Hazardous Materials Assessment

City Hall, Fairbanks, Alaska

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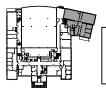


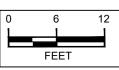


ASBESTOS CONTAINING FLOOR TILE UNDER EPOXY



ASBESTOS CONTAINING FLOOR TILE UNDER CARPET



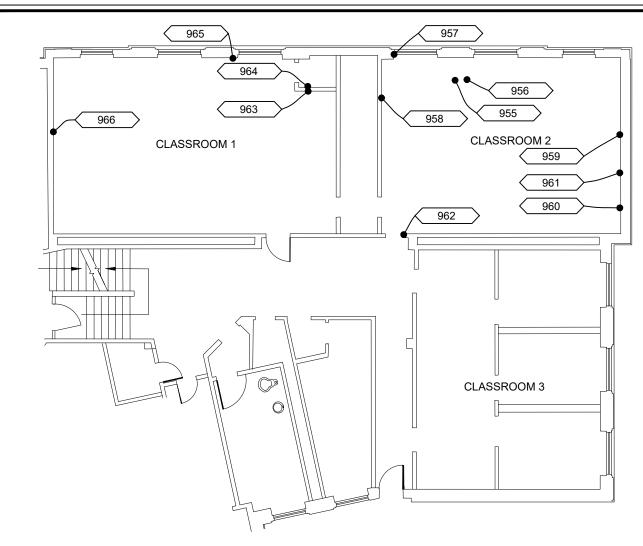






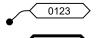
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Asbestos Containing Material Locations
Child Care Renovation - Hazardous Materials Assessment
City Hall, Fairbanks, Alaska

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	Lead Sample Results			
Number	Color	Surface	Substrate	Result (mg/cm²)
963	black	wall	gwb	0.00
964	pink	wall	stucco	0.18
965	white	wall	stucco	0.00
966	white	wall	stucco	0.00

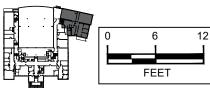
Lead Sample Results				
Number	Color	Surface	Substrate	Result (mg/cm²)
955	white	ceiling tile	MDF	0.00
956	gray	floor	concrete	0.6
957	white	wall	stucco	0.5
958	white	wall	stucco	0.01
959	green	chalkboard	slate	0.06
960	gray	trim	metal	0.3
961	white	wall	particle board	0.8
962	white over green	door	wood	0.7



LEAD BASED PAINT SAMPLE (<1mg/cm sq)(HUD)

LEAD BASED PAINT SAMPLE (>1mg/cm sq)(HUD)

SEE LEAD BASED PAINT TABULATION RESULTS FOR CONCENTRATION FOR LEAD SAMPLE NUMBER







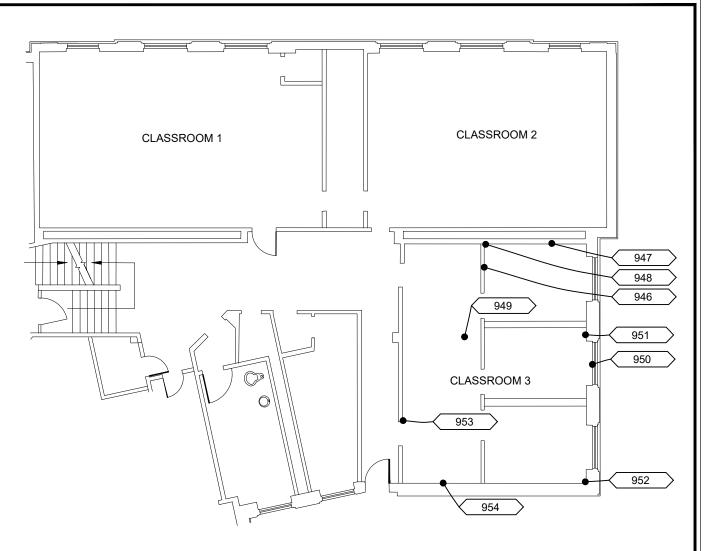
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Lead Sample Locations & Results

Child Care Renovation - Hazardous Materials Assessment

City Hall, Fairbanks, Alaska

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	Lead Sample Results								
Number	Color	Surface	Substrate	Result (mg/cm²)					
946	stain	panel	wood	0.00					
947	tan	wall	stucco	0.00					
948	yellow	trim	wood	0.3					
949	beige	floor	concrete	0.08					
950	white	heat register	metal	0.22					
951	white	wall	stucco	0.29					
952	light brown	wall	stucco	0.28					
953	blue	wall	stucco	0.00					
954	white	wall	particle board	0.01					

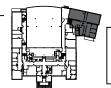


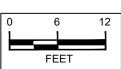
LEAD BASED PAINT SAMPLE (<1mg/cm sq)(HUD)



LEAD BASED PAINT SAMPLE (>1mg/cm sq)(HUD)

SEE LEAD BASED PAINT TABULATION RESULTS FOR CONCENTRATION FOR LEAD SAMPLE NUMBER







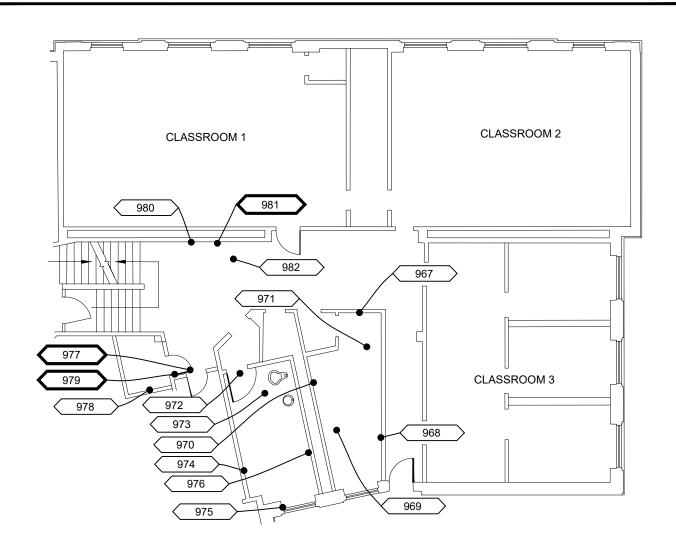


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Classroom 3

Lead Sample Locations & Results
Child Care Renovation - Hazardous Materials Assessment
City Hall, Fairbanks, Alaska

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		Lead Sample R	esults				
Number	Color	Surface	Substrate	Result (mg/cm²)			
967	blue	wall	stucco	0.29			
968	green over blue	wall	stucco	0.5			
969	tan	bathroom stall	wood	0.22			
970	white	wall	stucco	0.00			
971	gray	floor	concrete	0.27			
972	tan	floor	concrete	0.5			
973	white	bathroom stall	wood	0.00			
974	white	wall	stucco	0.9			

	Lead Sample Results								
Number	Color	Surface	Substrate	Result (mg/cm²)					
975	white	wall	stucco	0.7					
976	white	wall	stucco	0.00					
977	green	door	wood	2.1					
978	green	wall	stucco	0.4					
979	green	trim	wood	1.0					
980	brown	molding	plastic	0.4					
981	white over green	wall	stucco	1.0					
982	epoxy on gray	floor tile	vinyl	0.00					

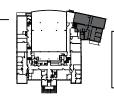


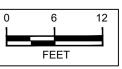
LEAD BASED PAINT SAMPLE (<1mg/cm sq)(HUD)



LEAD BASED PAINT SAMPLE (>1mg/cm sq)(HUD)

SEE LEAD BASED PAINT TABULATION RESULTS FOR CONCENTRATION FOR LEAD SAMPLE NUMBER







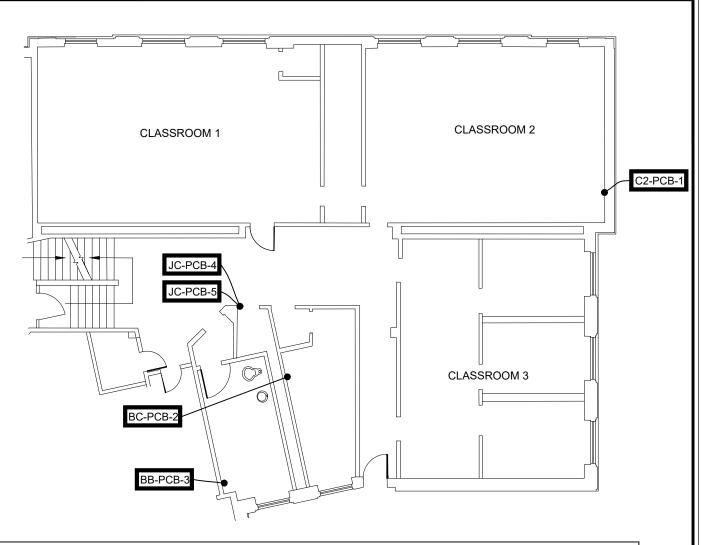


ENVIRONMENT, ENERGY, HEALTH & SAFETY CONSULTANTS 2400 College Road, Fairbanks, AK. 99709, 907-452-5688 3105 Lakeshore Dr., Anchorage, AK. 99517 907-222-2445 5438 Shaune Dr., Juneau, AK. 99801 907-586-6813

Other Areas

Lead Sample Locations & Results
Child Care Renovation - Hazardous Materials Assessment
City Hall, Fairbanks, Alaska

SCALE:	As Shown	FIGURE:
DESIGN:	DSF	8
DRAWN:	SPH	
PROJECT	NO: 23-	1058
DWG:	231058a	
DATE:	08/15/202	3
	DESIGN: DRAWN: PROJECT DWG:	DRAWN: SPH PROJECT NO: 23- DWG: 231058a



	PCB Sample Results							
		PCB Bulk by 3540/8082	2A (mg/kg)					
Sample ID	C2-PCB-1	BC-PCB-2	BB-PCB-3	JC-PCB-4	JC-PCB-5			
Color	white/yellow over gray	tan over green over blue	white	orange over green	white over green			
Aroclor-1016	ND	ND	ND	ND	ND			
Aroclor-1221	ND	ND	ND	ND	ND			
Aroclor-1232	ND	ND	ND	ND	ND			
Aroclor-1242	ND	ND	ND	ND	ND			
Aroclor-1248	ND	ND	ND	ND	ND			
Aroclor-1254	5.2	3.3	2.1	2.1	5.6			
Aroclor-1260	ND	0.40	ND	0.24	1.2			
Aroclor-1262	0.85	ND	0.33	ND	ND			
Aroclor-1268	ND	ND	ND	ND	ND			

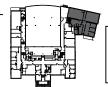
01234

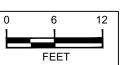
PCB PAINT SAMPLE LOCATIONS NEGATIVE (NO PCBs DETECTED)

01234

PCB PAINT SAMPLE LOCATIONS POSITIVE (PCBs DETECTED)

SEE TABULATED RESULTS FOR SAMPLE NUMBER & RESULTS









ENVIRONMENT, ENERGY, HEALTH & SAFETY CONSULTANTS 2400 College Road, Fairbanks, AK. 99709, 907-452-5688 3105 Lakeshore Dr., Anchorage, AK. 99517 907-222-2445 5438 Shaune Dr., Juneau, AK. 99801 907-586-6813 Class 2 & Other Areas

PCB Sample Locations & Results

Child Care Renovation - Hazardous Materials Assessment City Hall, Fairbanks, Alaska

SCALE:	As Shown	FIGURE:
DESIGN:	DSF	9
DRAWN:	SPH	
PROJECT	NO: 23-	1058
DWG:	231058a	
DATE:	08/15/202	23

Attachment 2 Photo Pages





Photo 1: Classroom 1 has two layers of carpet over ACM flooring tiles



Photo 2: Classroom 2 has one layer of carpet over ACM flooring tiles





Photo 3: Asbestos containing TSI in restroom 2 on heat piping



Photo 4: Asbestos containing TSI in restroom 1 on heat piping





Photo 5: PCB containing paint was found on the interior and exterior of the janitor closet door. Assume all doors are PCB containing.



Photo 6: PCB containing paint found on the divider stalls in restroom 2. Assume at restroom dividers are PCB containing.

Attachment 3 Laboratory Reports



EMSL Order: 042319893 **Customer ID:** NORT69

Customer PO: Project ID:

Attention: Danielle Frick Phone: (907) 452-5688

Nortech Environmental & Engineer Cnslt. Fax: (907) 452-5694

2400 College Road Received Date: 08/11/2023 9:40 AM Fairbanks, AK 99709 Analysis Date: 08/13/2023 - 08/14/2023

Collected Date: 08/11/2023

Project: 23-1058

Test Report: Asbestos Analysis of Non-Friable Organic Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 using Polarized Light Microscopy

Sample ID	Description	Appearance	% Matrix Material	% Non-Asbestos Fibers	Asbestos Types
ACM-1 042319893-0001	Classroom 3 Above Windows - White Sealant	White Non-Fibrous Homogeneous	99.3 Other	0.66 Fibrous_Other	No Asbestos Detected
ACM-2 042319893-0002	Classroom 3 Behind Tile - Mastic / Sealant	White Non-Fibrous Homogeneous	100 Other	<0.25 Fibrous_Other	No Asbestos Detected
ACM-3 042319893-0003	Classroom 3 Above Windows - White Sealant	White Non-Fibrous Homogeneous	100 Other	None	No Asbestos Detected
ACM-4 042319893-0004	Classroom 3 Above Windows - Patch Sealant	White Non-Fibrous Homogeneous	100 Other	None	No Asbestos Detected

Analyst(s)

Michael Bocchicchio (3) Michelle Quach (1) Samantha Runghton

Samantha Rundstrom, 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. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. EMSL suggests that samples reported as < 1% or none detected undergo additional analysis via TEM. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ PA ID# 68-00367, NVLAP Lab Code 101048-0

Initial report from: 08/14/2023 08:51:04

EMSL Customer ID: NORT69



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974 EMSL-CIN-01

August 04, 2023

Danielle Frick Nortech Environmental & Engineer Cnslt. [NORT69] 2400 College Road Fairbanks, AK 99709

The following analytical report covers the analysis performed on samples submitted to EMSL Analytical, Inc. on 7/28/2023. The results are tabulated on the attached pages for the following client designated project:

23-1058

The reference number for these samples is EMSL Order #: <u>AB59529</u> . Please use this reference when calling about these samples. If you have any questions, please do not hesitate to contact the lab at 856-858-4800.

Owen McKenna Laboratory Manager or other approved signatory

MM S

Table of Contents

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Sample Results	6
Quality Assurance Results	11
Certified Analyses	12
Certifications	12
Qualifiers, Definitions and Disclaimer	13
Chain of Custody PDF	14



EMSL Customer ID: NORT69



EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Attention: Danielle Frick **Project Name:** 23-1058

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road

Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Customer PO:

EMSL Sales Rep: Stefan Wiersgalla Received: 07/28/2023 09:30 Reported: 08/04/2023 13:35

Sample Condition on Receipt

Cooler ID: Default Cooler Temperature: 21.7 °C **Custody Seals** Υ Containers Intact Υ COC/Labels Agree **Preservation Confirmed**



EMSI 200 F

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Attention: Danielle Frick

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Project Name:

23-1058

EMSL Order ID: 012359529 LIMS Reference ID: AB59529

EMSL Customer ID: NORT69

Customer PO:

 EMSL Sales Rep:
 Stefan Wiersgalla

 Received:
 07/28/2023 09:30

 Reported:
 08/04/2023 13:35

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
AB59529-01	C2-PCB-1	Solid	07/26/2023	07/28/2023
AB59529-02	BC-PCB-2	Solid	07/26/2023	07/28/2023
AB59529-03	BB-PCB-3	Solid	07/26/2023	07/28/2023
AB59529-04	JC-PCB-4	Solid	07/26/2023	07/28/2023
AB59529-05	JC-PCB-5	Solid	07/26/2023	07/28/2023

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077
Telephone: 856-858-4800 Fax:856-786-5974

EMSL Order ID: 012359529 LIMS Reference ID: AB59529 EMSL Customer ID: NORT69

Attention: Danielle Frick

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road

EMSL-CIN-01

Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Project Name:

23-1058

Customer PO:

 EMSL Sales Rep:
 Stefan Wiersgalla

 Received:
 07/28/2023 09:30

 Reported:
 08/04/2023 13:35

Positive Hits Summary

Lab ID	Client ID				Sampled
AB59529-01	C2-PCB-1				07/26/23 10:35
Method	Analyte	Result	Qualifier	Unit	Analyzed
SW 846-8082A	Aroclor-1254	5.2		mg/kg	07/31/2023 13:40
SW 846-8082A	Aroclor-1262	0.85		mg/kg	07/31/2023 13:40
Lab ID	Client ID				Sampled
AB59529-02	BC-PCB-2				07/26/23 11:30
Method	Analyte	Result	Qualifier	Unit	Analyzed
SW 846-8082A	Aroclor-1254	3.3		mg/kg	07/31/2023 12:57
SW 846-8082A	Aroclor-1260	0.40		mg/kg	07/31/2023 12:57
Lab ID	Client ID				Sampled
AB59529-03	BB-PCB-3				07/26/23 12:15
Method	Analyte	Result	Qualifier	Unit	Analyzed
SW 846-8082A	Aroclor-1254	2.1		mg/kg	07/31/2023 14:01
SW 846-8082A	Aroclor-1262	0.33		mg/kg	07/31/2023 14:01
Lab ID	Client ID				Sampled
AB59529-04	JC-PCB-4				07/26/23 12:20
Method	Analyte	Result	Qualifier	Unit	Analyzed
SW 846-8082A	Aroclor-1254	2.1		mg/kg	07/31/2023 14:22
SW 846-8082A	Aroclor-1260	0.24		mg/kg	07/31/2023 14:22
Lab ID	Client ID				Sampled
AB59529-05	JC-PCB-5				07/26/23 12:30
Method	Analyte	Result	Qualifier	Unit	Analyzed
SW 846-8082A	Aroclor-1254	5.6		mg/kg	07/31/2023 14:43
SW 846-8082A	Aroclor-1260	1.2		mg/kg	07/31/2023 14:43

EMSL Customer ID: NORT69

EMSL Analytical, Inc.

Attention: Danielle Frick

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Project Name: 23-1058

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Customer PO:

EMSL Sales Rep: Stefan Wiersgalla Received: 07/28/2023 09:30 Reported: 08/04/2023 13:35

Sample Results

Sample: C2-PCB-1

AB59529-01 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1254	5.2		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1260	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1262	0.85		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Surrogate(s)	Recovery	Q		Limits						
Surrogate: Tetrachloro-m-xylene	61%			21-123		07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A
Surrogate: Decachlorobiphenyl	90%			17-128		07/28/23 11:27	07/31/23 13:40	MS/TL1	SW846 3546	SW 846-8082A



EMSL Customer ID: NORT69

EMSL

Attention: Danielle Frick

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Project Name: 23-1058

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Customer PO:

 EMSL Sales Rep:
 Stefan Wiersgalla

 Received:
 07/28/2023 09:30

 Reported:
 08/04/2023 13:35

Sample Results

(Continued)

Sample: BC-PCB-2

AB59529-02 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1254	3.3		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1260	0.40		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1262	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Surrogate(s)	Recovery	Q		Limits						
Surrogate: Tetrachloro-m-xylene	56%			21-123		07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A
Surrogate: Decachlorobiphenyl	59%			17-128		07/28/23 11:27	07/31/23 12:57	MS/TL	SW846 3546	SW 846-8082A

EMSL Customer ID: NORT69

EMSL

Attention: Danielle Frick

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Project Name: 23-1058

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Customer PO:

 EMSL Sales Rep:
 Stefan Wiersgalla

 Received:
 07/28/2023 09:30

 Reported:
 08/04/2023 13:35

Sample Results

(Continued)

Sample: BB-PCB-3

AB59529-03 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1254	2.1		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1260	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1262	0.33		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.24	mg/kg	07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Surrogate(s)	Recovery	Q		Limits						
Surrogate: Tetrachloro-m-xylene	54%			21-123		07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A
Surrogate: Decachlorobiphenyl	56%			17-128		07/28/23 11:27	07/31/23 14:01	MS/TL1	SW846 3546	SW 846-8082A

EMSL Customer ID: NORT69

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Attention: Danielle Frick **Project Name:**

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

23-1058

Customer PO:

EMSL Sales Rep: Stefan Wiersgalla Received: 07/28/2023 09:30 Reported: 08/04/2023 13:35

Sample Results

(Continued)

Sample: JC-PCB-4

AB59529-04 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1254	2.1		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1260	0.24		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1262	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Surrogate(s)	Recovery	Q		Limits						
Surrogate: Tetrachloro-m-xylene	25%			21-123		07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A
Surrogate: Decachlorobiphenyl	41%			17-128		07/28/23 11:27	07/31/23 14:22	MS/TL1	SW846 3546	SW 846-8082A



EMSL

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Attention: Danielle Frick

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Project Name:

23-1058

EMSL Order ID: 012359529 LIMS Reference ID: AB59529

EMSL Customer ID: NORT69

Customer PO:

 EMSL Sales Rep:
 Stefan Wiersgalla

 Received:
 07/28/2023 09:30

 Reported:
 08/04/2023 13:35

Sample Results

(Continued)

Sample: JC-PCB-5

AB59529-05 (Solid)

Analyte	Result	Q	DF	RL	Units	Prepared Date/Time	Analyzed Date/Time	Prep/Analyst Initials	Prep Method	Analytical Method
GC-SVOA										
Aroclor-1016	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1221	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1232	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1242	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1248	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1254	5.6		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1260	1.2		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1262	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Aroclor-1268	ND		1	0.23	mg/kg	07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Surrogate(s)	Recovery	Q		Limits						
Surrogate: Tetrachloro-m-xylene	47%			21-123		07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A
Surrogate: Decachlorobiphenyl	55%			17-128		07/28/23 11:27	07/31/23 14:43	MS/TL1	SW846 3546	SW 846-8082A

EMSL Customer ID: NORT69



Attention: Danielle Frick

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Project Name: 23-1058

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road

Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Customer PO:

 EMSL Sales Rep:
 Stefan Wiersgalla

 Received:
 07/28/2023 09:30

 Reported:
 08/04/2023 13:35

Quality Control

GC-SVOA

Analyte	Result Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: BBG0552 - SW846 3546	<u> </u>								
Blank (BBG0552-BLK1)			Di	repared: 7/28,	/2023 Analyz	ed: 7/31/20	23		
Aroclor-1016	ND	0.25	mg/kg	repuicu. 7/20/	2023 Andry2	cu. //J1/20	23		
Aroclor-1221	ND ND	0.25	mg/kg						
Aroclor-1232	ND	0.25	mg/kg						
Aroclor-1242	ND	0.25	mg/kg						
Aroclor-1248	ND	0.25	mg/kg						
Aroclor-1254	ND	0.25	mg/kg						
Aroclor-1260	ND	0.25	mg/kg						
Aroclor-1262	ND	0.25	mg/kg						
Aroclor-1268	ND	0.25	mg/kg						
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.5000		63	21-123		
Surrogate: Decachlorobiphenyl				0.5000		71	17-128		
LCS (BBG0552-BS1)			Pi	repared: 7/28,	/2023 Analyz	ed: 7/31/20	23		
Aroclor-1016	2.86	0.25	mg/kg	5.000		57	37-120		
Aroclor-1260	3.14	0.25	mg/kg	5.000		63	45-121		
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.5000		<i>57</i>	21-123		
Surrogate: Decachlorobiphenyl				0.5000		66	17-128		
Matrix Spike (BBG0552-MS1)	Source: /	AB59529-02	Pi	repared: 7/28,	/2023 Analyz	ed: 7/31/20	23		
Aroclor-1016	2.66	0.24	mg/kg	4.878	ND	54	30-133		
Aroclor-1260	3.01	0.24	mg/kg	4.878	0.384	54	30-134		
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.4878		50	21-123		
Surrogate: Decachlorobiphenyl				0.4878		54	17-128		
Matrix Spike Dup (BBG0552-MSD1)	Source: A	AB59529-02	Pi	repared: 7/28,	/2023 Analyz	ed: 7/31/20	23		
Aroclor-1016	3.37	0.23	mg/kg	4.651	ND	73	30-133	24	28
Aroclor-1260	3.71	0.23	mg/kg	4.651	0.384	72	30-134	21	28
Surrogate(s)									
Surrogate: Tetrachloro-m-xylene				0.4651		63	21-123		
Surrogate: Decachlorobiphenyl				0.4651		67	17-128		

EMSL Order ID: 012359529

LIMS Reference ID: AB59529

EMSL Customer ID: NORT69

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Attention: Danielle Frick **Project Name:**

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road Fairbanks, AK 99709

(907) 687-1227

danielle.frick@nortechengr.com

23-1058

Customer PO:

EMSL Sales Rep: Stefan Wiersgalla Received: 07/28/2023 09:30 Reported: 08/04/2023 13:35

Certified Analyses included in this Report

Analyte	CAS #	Certifications	
SW 846-8082A in Solid			
Aroclor-1016	12674-11-2	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1221	11104-28-2	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1232	11141-16-5	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1242	53469-21-9	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1248	12672-29-6	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1254 [2C]	11097-69-1	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1260	11096-82-5	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1260 [2C]	11096-82-5	NJDEP,NYSDOH,PADEP,California ELAP	
Aroclor-1262	37324-23-5	NJDEP,NYSDOH,PADEP	
Aroclor-1262 [2C]	37324-23-5	NJDEP,NYSDOH,PADEP	
Aroclor-1268	11100-14-4	NJDEP,NYSDOH,PADEP	

List of Certifications

Code	Description	Number	Expires
MADEP	Massachusetts Department of Environmental Protection	M-NJ337	06/30/2023
California ELAP	California Water Boards	1877	06/30/2024
A2LA	A2LA Enivronmental Certificate	2845.01	07/31/2024
AIHA LAP	EMSL Analytical, Inc. Cinnaminson, NJ AIHA-LAP, LLC-ELLAP Accredited	100194	01/01/2025
NJDEP	New Jersey Department of Environmental Protection	03036	06/30/2023
PADEP	Pennsylvania Department of Environmental Protection	68-00367	11/30/2023
NYSDOH	New York State Department of Health	10872	04/01/2024
CTDPH	Connecticut Department of Public Health	PH-0270	06/23/2023

Please see the specific Field of Testing (FOT) on www.emsl.com www.emsl.com for a complete listing of parameters for which EMSL is certified.



EMSL Customer ID: NORT69



Attention: Danielle Frick

EMSL Analytical, Inc.

200 Route 130, Cinnaminson, NJ, 08077 Telephone: 856-858-4800 Fax:856-786-5974

EMSL-CIN-01

Project Name: 23-1058

Nortech Environmental & Engineer Cnslt. [NORT69]

2400 College Road

Fairbanks, AK 99709 (907) 687-1227

danielle.frick@nortechengr.com

Customer PO:

 EMSL Sales Rep:
 Stefan Wiersgalla

 Received:
 07/28/2023 09:30

 Reported:
 08/04/2023 13:35

Notes and Definitions

Item	Definition
[2C]	Reported from the second channel in dual column analysis.
DF	Dilution Factor
MDL	Method Detection Limit.
ND	Analyte was NOT DETECTED at or above the detection limit.
Q	Qualifier
RL	Reporting Limit
%REC	Percent Recovery
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated

Measurement of uncertainty and any applicable definitions of method modifications are available upon request. Per EPA NLLAP policy, sample results are not blank corrected.

EMSL ANALYTICAL, INC.

Environmental Chemistry Chain of Custody

EMSL Order Number / Lab Use Only

200 Route

Table of Contents

Cinnaminson, NJ 08077 PHONE: 1-800-220-3675 EMAIL: c@emsl.com

Customer ID: Company Name: Nortech Contact Name: Danielle Frick Street Address: 2400 College Rd City, State, Zip: Fairbanks AK 99709 Country: US Phone: 9074525688 Email(s) for Report: danielle.frick@nortechengr.com Project Mame/No: 23-1058 Email(s) for Report: danielle.frick@nortechengr.com Project Mame/No: 23-1058 EMSL LIMS Project ID: Reportable EMSL Will provide Samples Sollected by (Check One): EMSL CLIENT Samples Received Chilled? Samples Billing ID: Company Name: Nortech Environmental & Engineer Cnslt. Billing Contact: Danielle Frick Street Address: 2400 College Road City, State, Zip: Fairbanks AK 99709 Country: US Phone: 907-452-5688 Email(s) for Invoice: Purchase Order: Residential (Non-Taxable) Residential (Non-Taxable) Residential (Non-Taxable) Residential (Non-Taxable) State Reporting Required (Specify) Receipt: (LAB ONLY) Samples Collected by (Check One): EMSL CLIENT Samples Received Chilled? Yes No Sample(s) Temperature Upon Receipt: (LAB ONLY) No. of Samples 5 In Shipment: 5		EMSL ANALYTI						AB59529														1-800-220 c@emsl.c	
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Sampled By Namer Danul Frick Turn-Around-Time (TAT) Standard Turn-Around-Time: 2 Weeks The following Arr's are subject to Lab approval. 1 Week 4 Days 3 Days 2 Days 1 Date / Time Body By Namer Danul Frick Client Sample ID By Date / Time Collected S-Soil A-Air 3 H2SO4 A-Air 4 ICE 5 Other Collected S-Soil A-Air 3 H2SO4 A-Air 4 ICE 5 Other Date / Time Special Instructions and/or Regulatory Requirements (Sample Specifications, Processing Methods, Limits of Detection, etc.) Reporting Requirements: Results Only Results and QC Reduced Deliverables Hzresults EDD Excel Other (Describe Ab Method of Shipment: FLA EX Relinquished by: Daniellle Frick Relinquished by: Daniellle Frick Date/Time: Received by: Date/Time: Received by: Date/Time: Date/Time: Received by: Date/Time: Dat	Sam	ples Collected by	(Check On	e):		EMSL	CLIENT	Samples Received Cl	hilled?		Yes		✓ No	Sa					on			1	0
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C2-PCB-1 T/26/23 1035 Paint C-PCB-2 T/26/23 1130 Paint T/26/23 11215 Paint T/26/23 11215 Paint C-PCB-4 Reporting Requirements: Results Only Results and QC Reduced Deliverables Sample Condition Upon Receipt: Results Only Results and QC Reduced Deliverables Sample Condition Upon Receipt: Received by: Date/Time: T/27/23 0900 Received by: Date/Time: Corrolled Document - COC-07 Chemistry R11 02/25/2021 AGREE To ELECTRONC SIGNATURE (By checking, I consent to signing this Chain of Custody document by electronic signature.) Page 14 of 1	1411	TAIOUIIU TIIIIO	(1711)		T				Call lab	DAE N				in test h	•	hen ch	eck on	sam	nle lin	e·)	1		/
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Environmental Chemistry Chain of Custody

EMSL Order Number / Lab	Use Only	
M59579		

EMSL AI Table of Contents 200 Route 130 North

Cinnaminson, NJ 08077 PHONE: 1-800-220-3675 EMAIL: c@emsl.com

				Matrix	Preservative	List								
Client Sample ID	Comp	Grab	Date / Time Collected	W=Water S=Soil A=Air SL=Sludge O=Other	1 HCL 2 HNO3 3 H2SO4 4 ICE 5 Other Describe in Special Instructions	1est 1: 3540C/3546//8082A	Test 2:	Test 3:	Test 4:	Test 5:	Test 6:	Test 7:	Test 8:	Comments
C-PCB-5			7/26/23 1230	Paint		~								white/ gree
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linquished by:				Date/Time:			Received b	y:					Date	/Time



200 Route 130 North Cinnaminson, NJ 08077 Phone/Fax: (800) 220-3675 / (856) 786-5974 http://www.EMSL.com / cinnasblab@EMSL.com EMSL Order ID: Customer ID: Customer PO:

Project ID:

042318539 NORT69

Attn: Janine Way

Nortech Environmental & Engineer Cnslt.

2400 College Road

Fairbanks, AK 99709

Phone: Fax: (907) 452-5688 (907) 452-5694

Collected:

Received:

,

Analyzed:

7/28/2023 8/07/2023

Proj: Clty Hall / 23-1058

Summary Test Report for Asbestos Analysis of Bulk Material

Client Sample ID: C3A-BA-1 Lab Sample ID: 042318539-0001

Sample Description: Classroom 3A/Brown Cove Base

Non-Asbestos Analyzed **TEST** Date Color Fibrous Non-Fibrous **Asbestos** Comment PLM Grav. Reduction 8/04/2023 Brown 0.0% 100% None Detected 042318539-0002 C3A-BA-2 Lab Sample ID: Client Sample ID:

Sample Description: Classroom 3A/2'x4' Ceiling Tiles Type 1

 Analyzed
 Non-Asbestos

 TEST
 Date
 Color
 Fibrous
 Non-Fibrous
 Asbestos
 Comment

 PLM
 8/05/2023
 Gray/White
 80.0%
 20.0%
 None Detected

 Client Sample ID:
 C3A-BA-3

 Lab Sample ID:
 042318539-0003

Sample Description: Classroom 3A/2'x4' Ceiling Tiles Type 2

Analyzed Non-Asbestos Fibrous Non-Fibrous Comment **TEST** Date Color Asbestos PLM 8/05/2023 Gray/White 80.0% 20.0% None Detected C3D-BA-4 Lab Sample ID: 042318539-0004 Client Sample ID:

Sample Description: Classroom 3D/2'x4' Ceiling Tiles Type 3

Analyzed Non-Asbestos
TEST Date Color Fibrous Non-Fibrous Asbestos Comment

PLM 8/05/2023 Gray/White 80.0% 20.0% None Detected

 Client Sample ID:
 C3B-BA-5-Insulation

 Lab Sample ID:
 042318539-0005

Sample Description: Classroom 3B/TSI Piping with Insulation Jacket

 Analyzed
 Non-Asbestos

 TEST
 Date
 Color
 Fibrous
 Non-Fibrous
 Asbestos
 Comment

 PLM
 8/05/2023
 Yellow
 95.0%
 5.0%
 None Detected

 Client Sample ID:
 C3B-BA-5-Mastic
 Lab Sample ID:
 042318539-0005A

Sample Description: Classroom 3B/Mastic

Analyzed Non-Asbestos Fibrous Non-Fibrous TEST Date Color **Asbestos** Comment PLM Grav. Reduction 8/04/2023 Nhite/Silver/Yellow 8.4% 91.6% None Detected 042318539-0006 C3B-BA-6-Floor Tile Lab Sample ID:

Client Sample ID: C3B-BA-6-Floor Tile Lab Sample ID: 042318539-0006

Sample Description: Classroom 3B/Floor Tile

 Analyzed
 Non-Asbestos

 TEST
 Date
 Color
 Fibrous
 Non-Fibrous
 Asbestos
 Comment

 PLM Grav. Reduction
 8/04/2023
 Gray
 0.0%
 94.5%
 5.5%
 Chrysotile



Client Sample ID:

Sample Description:

Sample Description:

EMSL Analytical, Inc.

C3B-BA-6-Mastic

Classroom 3B/Black Mastic

200 Route 130 North Cinnaminson, NJ 08077 Phone/Fax: (800) 220-3675 / (856) 786-5974 http://www.EMSL.com / cinnasblab@EMSL.com EMSL Order ID: Customer ID: Customer PO:

Lab Sample ID:

Project ID:

042318539 NORT69

042318539-0006A

Summary Test Report for Asbestos Analysis of Bulk Material

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM Grav. Reduction 8/04/2023 Black 0.0% 94.3% 2.3% Amosite 3.4% Chrysotile Lab Sample ID: 042318539-0007 Client Sample ID: C3C-BA-7-Carpet Sample Description: Classroom 3C/Brown Carpet Analyzed Non-Asbestos TEST Date Color Fibrous Non-Fibrous **Asbestos** Comment PLM 8/05/2023 85.0% 15.0% Brown None Detected Client Sample ID: C3C-BA-7-Mastic Lab Sample ID: 042318539-0007A Sample Description: Classroom 3C/Mastic Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM Grav. Reduction 8/04/2023 Yellow 0.0% 100% None Detected Lab Sample ID: 042318539-0008 Client Sample ID: C3D-BA-8-Floor Tile

	Analyzed		Non	-Asbestos				
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment		
PLM Grav. Reduction	8/04/2023	Gray	0.0%	94.2%	5.8% Chrysotile			_
Client Sample ID:	C3D-BA-8-Mastic					Lab Sample ID:	042318539-0008A	

Client Sample ID: Sample Description: Classroom 3D/Black Mastic

Classroom 3D/Floor Tile

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
400 PLM PtCt Grav. R	ed. 8/04/2023	Black	0.0%	100%	<0.25% Chrysotile		
Client Sample ID:	C3A-BA-9					Lab Sample ID:	042318539-0009
Sample Description:	Classroom 3A/White Paint						
	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/04/2023	White/Black	0.0%	100%	None Detected		

SAMPLE RESULT INVALIDATED THROUGH RESAMPLING



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Summary Test Report for Asbestos Analysis of Bulk Material

Lab Sample ID: 042318539-0011 Client Sample ID: C2-BA-11

Sample Description: Classroom 2/White Ceiling Tile (1'x1)

	Analyzed		Non	-Asbestos				
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment		
PLM	8/06/2023	Brown/White	95.0%	5.0%	None Detected			
Client Sample ID:	C2-BA-12-Floor Tile					Lab Sample ID:	042318539-0012	

Sample Description: Classroom 2/Floor Tile

	Analyzed		Non-	Asbestos		
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment
PLM Grav. Reduction	8/04/2023	Gray	0.0%	93.4%	6.6% Chrysotile	

Lab Sample ID: 042318539-0012A Client Sample ID: C2-BA-12-Mastic

Sample Description: Classroom 2/Mastic

	Analyzed		Non-	Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
400 PLM PtCt Grav. Red.	8/04/2023	Black	0.0%	100%	<0.25% Chrysotile		
Client Sample ID: C2-BA	-13					Lab Sample ID:	042318539-0013

Sample Description: Classroom 2/Black Caulk

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/04/2023	White/Black	0.0%	100%	None Detected		

042318539-0014 Lab Sample ID: Client Sample ID: C2-BA-14-Carpet

Sample Description: Classroom 2/Orange Carpet

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	8/05/2023	Orange	85.0%	15.0%	None Detected		

Lab Sample ID: 042318539-0014A Client Sample ID: C2-BA-14-Mastic

Sample Description: Classroom 2/Yellow Mastic

	Analyzed		Non	-Asbestos				
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment		
PLM Grav. Reduction	8/06/2023	Yellow	0.0%	100%	None Detected			
Client Sample ID:	C2-BA-15-Insulation					Lab Sample ID:	042318539-0015	

Client Sample ID: C2-BA-15-Insulation

Sample Description: Classroom 2/TSI Piping with Insulation Jacket

	Analyzed		Non-	Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	8/05/2023	Yellow	95.0%	5.0%	None Detected		
	00 54 4544 #					Lab Camala ID.	0.4004.0500.004.54

Client Sample ID: Lab Sample ID: 042318539-0015A C2-BA-15-Mastic

Sample Description: Classroom 2/Mastic

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/06/2023	Nhite/Silver/Yellow	6.2%	93.8%	None Detected		



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Summary Test Report for Asbestos Analysis of Bulk Material

Lab Sample ID: 042318539-0016 Client Sample ID: C1-BA-16

Sample Description: Classroom 1/Ceiling Tile (1'x1')

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	8/05/2023	Brown/White	90.0%	10.0%	None Detected		
Client Sample ID:	C1-BA-17-Insulation					Lab Sample ID:	042318539-0017

Sample Description: Classroom 1/TSI Piping with Insulation Jacket

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM	8/06/2023	White/Yellow	95.0%	5.0%	None Detected	Result includes a inseparable attach	
Client Sample ID:	C1-BA-17-Mastic					Lab Sample ID:	042318539-0017A

Sample Description: Classroom 1/Mastic

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/06/2023	Nhite/Silver/Yellow	8.7%	91.3%	None Detected		
Client Sample ID:	C1-BA-18-Floor Tile					Lab Sample ID:	042318539-0018

Sample Description: Classroom 1/Floor Tile

	Analyzed		Non-Asbestos			
TEST	Date	Color	Fibrous Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/06/2023	Gray	0.0% 92.8%	7.2% Chrysotile		
Client Sample ID:	1-BA-18-Mastic 1				Lab Sample ID:	042318539-0018A

Sample Description: Classroom 1/Mastic

	Analyzed		Non	-Asbestos			
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/06/2023	Black	0.0%	100%	None Detected		
011-11-01-11-15	DA 40 M+i- 0					Lah Sampla ID:	042219520 0019B

Client Sample ID: C1-BA-18-Mastic 2 Lab Sample ID:

Sample Description: Classroom 1/Floor Tile

	Analyzed		Non-Asbestos				
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/06/2023	Yellow	0.0%	100%	None Detected		

C1-BA-19 Lab Sample ID: 042318539-0019 Client Sample ID:

Sample Description: Classroom 1/Uncovered Floor Mastic

	Analyzed		Non-Asbestos				
TEST	Date	Color	Fibrous	Non-Fibrous	Asbestos	Comment	
PLM Grav. Reduction	8/06/2023	Black/Yellow	0.90%	99.1%	None Detected		
Client Sample ID:	C1-BA-20-GWB					Lab Sample ID:	042318539-0020
Sample Description:	Classroom 1/GWB						

	Analyzed		Non-Asbestos			
TEST	Date	Color	Fibrous No	on-Fibrous	Asbestos	Comment
PLM	8/06/2023				Layer Not Present	



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Summary Test Report for Asbestos Analysis of Bulk Material

Lab Sample ID: 042318539-0020A Client Sample ID: C1-BA-20-Joint Compound

Sample Description: Classroom 1/J.C

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM 8/06/2023 Tan/White 0.0% 100.0% Inseparable paint / coating layer included in None Detected analysis

Lab Sample ID: Client Sample ID: C1-BA-20-Caulking 042318539-0020B

Sample Description: Classroom 1/Caulking

Analyzed Non-Asbestos **TEST** Date Color Fibrous Non-Fibrous **Asbestos** Comment White PLM Grav. Reduction 8/06/2023 0.0% 100% None Detected Lab Sample ID: 042318539-0021 Client Sample ID: C1-BA-21

Sample Description: Classroom 1/Wall Textured J.C

Analyzed Non-Asbestos **TEST** Date Color **Fibrous** Non-Fibrous **Asbestos** Comment PLM White 8/06/2023 0.0% 100.0% None Detected

042318539-0022 Client Sample ID: C1-BA-22 Lab Sample ID:

Sample Description: Classroom 1/Wall Textured J.C

Non-Ashestos Analyzed TEST Fibrous Non-Fibrous Comment Date Color Asbestos PLM 8/07/2023 0.0% 100.0% None Detected White

042318539-0023 Client Sample ID: BC-BA-23 Lab Sample ID:

Sample Description: Bathroom C/Friable TSI Pipe Insulation

Analyzed Non-Asbestos **TEST** Date Fibrous Non-Fibrous **Asbestos** Comment Color PLM 8/06/2023 White/Green 40.0% 22.0% 30% Amosite Inseparable paint / coating layer included in Inseparable paint / coating layer included in 8% Chrysotile analysis

Lab Sample ID: 042318539-0024 Client Sample ID: BB-BA-24

Sample Description: Bathroom B/Friable TSI Pipe Insulation

Analyzed Non-Asbestos TEST Comment Date Fibrous Non-Fibrous Color Asbestos PLM 8/06/2023 Brown/Gray/Tan 20.0% 30.0% 50% Chrysotile

042318539-0025 Client Sample ID: BB-BA-25 Lab Sample ID:

Sample Description: Bathroom B/Friable TSI Pipe Insulation

Analyzed Non-Asbestos **TEST** Non-Fibrous Asbestos Comment Date Color Fibrous PLM White 0.0% 60.0% 8/07/2023 30% Amosite 10% Chrysotile

Lab Sample ID: 042318539-0026 Client Sample ID: C1-BA-26

Sample Description: Classroom 1/Stucco Walls

Non-Asbestos Analyzed TEST Date Color Fibrous Non-Fibrous **Asbestos** Comment PLM Result includes a small amount of 8/06/2023 Grav/White 0.0% 100 0% None Detected inseparable attached material



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Project ID:

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NORT69

Summary Test Report for Asbestos Analysis of Bulk Material

Lab Sample ID: 042318539-0027 Client Sample ID: BB-BA-27-Cove Base

Sample Description: Bathroom B/Cove Base

Analyzed Non-Ashestos **TEST** Date Color Fibrous Non-Fibrous Asbestos Comment PLM Grav. Reduction 8/06/2023 Beige 0.0% 100% None Detected

Client Sample ID: BB-BA-27-Mastic Lab Sample ID: 042318539-0027A

Sample Description: Bathroom B/Mastic

Non-Asbestos Analyzed TEST Non-Fibrous Comment Color Asbestos PLM Grav. Reduction 8/06/2023 Yellow 0.0% 100% None Detected

Lab Sample ID: 042318539-0028 Client Sample ID: HW-BA-28

Sample Description: Hallway/Surface Texture

Analyzed Non-Asbestos TEST Date Fibrous Non-Fibrous Comment Color Asbestos PLM 8/06/2023 White 0.0% 100.0% None Detected

Analyst(s):

Gregory Barry 400 PLM PtCt Grav. Red (2)

PLM Grav. Reduction (9)

PLM (10) Keishla Vazquez Caraballo Michael Bocchicchio PLM (8)

PLM Grav. Reduction (10)

Michelle Quach PLM (2)

Reviewed and approved by:

Samantha Runghtons

Samantha Rundstrom, Laboratory Manager or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ PA ID# 68-00367, NVLAP Lab Code 101048-0

Initial report from: 08/07/202309:53:25