

SURVEY REPORT FOR ASBESTOS AND LEAD-BASED PAINT

Prepared For:

TALLEY & SMITH ARCHITECTURE, INC.
409 EAST MARION STREET
SHELBY, NORTH CAROLINA 28150

Regarding:

DELIVERY ORDER NO. 0030

RENOVATION, BLDG. M104 (MEDICAL TRAINING)

MARINE CORPS BASE — CAMP JOHNSON

JACKSONVILLE, NORTH CAROLINA

Prepared By:

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ISSUE DATE: SEPTEMBER 30, 2019

ACES PROJECT: 2019-05-037



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September 30, 2019

Prepared by:

DeWitt Whitten, CHMM, REM, CES, REPA

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General Manager

NC Licensed Asbestos Inspector #10706 NC Licensed LBP Risk Assessor #120118 Reviewed by:

Robert L. Smith, AIA, LEED AP Managing Partner

Robert J- Smitht



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1.0 INTRODUCTION

As authorized by Talley & Smith Architecture, Inc. on April 12, 2019, personnel of Allied Consulting and Environmental Services, LLC (ACES) performed a non-invasive survey for suspect asbestos containing materials (ACM) and a limited lead-based paint (LBP) survey for building M-104 at the Marine Corps Base — Camp Johnson in Jacksonville, North Carolina on June 25, 2019. The surveys were conducted for the purpose of identifying asbestos containing materials and lead-based painted materials that may be impacted by the proposed renovation of the Building M-104.

2.0 GENERAL BACKGROUND INFORMATION

2.1 Asbestos

The term "asbestos" refers to a group of naturally-occurring, fibrous minerals that are commercially mined throughout the world, primarily in Canada, Russia, and South Africa. Asbestos has been used in hundreds of products. Collectively, these products are referred to as asbestos-containing materials (ACMs). Asbestos gained wide use because it is plentiful, readily available, low in cost, and because of its unique properties — fire resistance, high tensile strength, resistance, and insulating characteristics.

As an insulator, asbestos received wide spread use for thermal insulation and condensation control. Asbestos is added to a variety of building materials to enhance strength. It is found in concrete and concrete-like products. Asbestos cement products are used as siding and roofing shingles, wallboard, as corrugated or flat sheets for roofing and partition walls, and as piping. Asbestos has also been added to asphalt, vinyl, and other materials to make products like roofing cements, felts and shingles, exterior siding materials, floor tiles, joint compounds, and mastics/adhesives. Asbestos also proved valuable as a component of acoustical plaster. This material was troweled-on or sprayed-on to ceilings or walls. As a decorative product, asbestos was frequently used to texture ceilings, walls, and other painted surfaces. Asbestos is still mined commercially and used in many common products, including brake shoes, roofing materials, and flooring products. It is important to realize that commercially available products containing asbestos can still be purchased. It is a common misconception that asbestos is no longer used.

The three most commonly encountered types of asbestos are sometimes referred to by their predominant color. Chrysotile (white) is by far the most frequently used asbestos mineral, constituting approximately 95% of all commercial and industrial applications. Chrysotile fibers



are long and flexible and can be spun or woven into cloth. Amosite (brown) and crocidolite (blue) are used in approximately 4-5% of asbestos-containing products.

The U.S. Environmental Protection Agency promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 61], which addresses the application, removal, and disposal of asbestos-containing materials (ACM). Under NESHAP, the following categories are defined for asbestos-containing materials:

<u>Friable</u> - When dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

<u>Nonfriable</u> - When dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

<u>Category I Nonfriable ACM</u> - Packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos.

<u>Category II Nonfriable ACM</u> – Any material excluding Category I Nonfriable ACM containing more than 1% asbestos.

Regulated Asbestos Containing Material (RACM) – RACM include one of the following:

- 1) Friable ACM
- 2) Category I Nonfriable ACM that has become friable.
- 3) Category I Nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- 4) Category II Nonfriable ACM that has a high probability of becoming, or has become, friable by the forces expected to act on the material in the course of demolition or renovation operations.

Under NESHAP, the following actions are required:

- 1) Prior to the commencement of demolition or renovation activities, the building owner must inspect the affected facility or part of the facility where the demolition or renovation activities will occur for the presence of asbestos.
- Remove all RACM from the facility before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access for subsequent removal.
- 3) RACM need not be removed if:
 - a) It is Category I nonfriable ACM that is not in poor condition.
 - b) It is on a facility component that is encased in concrete or other similar material and is adequately wet whenever exposed.
 - c) It was not accessible for testing and was therefore not discovered until after demolition began and because of the demolition the material cannot be safely removed.



d) It is Category II non-friable ACM and the probability is low that the material will become crumbled, pulverized, or reduced to powder during demolition.

The Occupational Safety and Health Administration (OSHA) has established three sets of regulatory standards pertaining to asbestos exposure:

29 CFR 1910.1001 General Industry

29 CFR 1926.1101 Construction Industry

29 CFR 1910.134 Respiratory Protection

The construction industry standard covers activities involving asbestos demolition, removal, alteration, repair, maintenance, installation, cleanup, transportation, disposal, and storage. The general industry standard covers other activities where asbestos exposure is possible. Addressed under the OSHA standards are building owner / employer responsibilities regarding the identification of identified or presumed asbestos containing materials (PACM), notification to tenants / employees of the presence of asbestos, employee training, and work procedures.

2.2 Lead-based Paint

Lead-based paint is paint containing lead, a heavy metal, which is used as pigment. Lead chromate (PbCrO₄ - "chrome yellow") and lead carbonate(PbCO₃ - "white lead") are the most common lead compounds used as pigments. Lead is also added to paint to speed drying, increase durability, retain a fresh appearance, and resist moisture that causes corrosion. Paint with significant lead content is still used in industry and by the military. For example, leaded paint is sometimes used to paint roadway markings and parking lot lines.

Although lead improves paint performance, it is a dangerous substance. It is especially damaging to children under age six whose bodies are still developing. Lead causes nervous system damage, hearing loss, stunted growth, and delayed development. It can cause kidney damage and affects every organ system of the body. It also is dangerous to adults, and can cause reproductive problems for both men and women. One myth related to lead-based paint is that the most common cause of poisoning was eating leaded paint chips. In fact, the most common pathway of childhood lead exposure is through ingestion of lead dust through normal hand-to-mouth contact during which children swallow lead dust dislodged from deteriorated paint or lead dust generated during remodeling or painting. Lead dust from remodeling or deteriorated paint lands on the floor near where children play and can ingest it.

Paint containing more than 0.06% (600 ppm) lead was banned for residential use in the United States in 1978 by the U.S. Consumer Product Safety Commission (16 Code of Federal Regulations CFR 1303). The U.S. Government defines "lead-based paint" as any "paint, surface coating that contains lead equal to or exceeding one milligram per square centimeter (1.0 mg/cm²) or 0.5% by weight." These definitions are used to enforce regulations that apply to certain activities conducted in housing constructed prior to 1978, such as abatement, or the permanent elimination of a "lead-based paint hazard." Construction activities that involve LBP are addressed OSHA in 29 CFR 1926.62 (Lead in Construction).



2.3 Project Scope

The scope of this survey included the interior and exterior of Building M-104 as designated on drawings furnished by Talley & Smith Architecture, Inc., the proposed scope of work provided to ACES, and as discussed in our conversation on April 12, 2019. It is our understanding that the building will be renovated in the near future.

3.0 METHODOLOGY

3.1 Asbestos

For this project, a visual, non-invasive survey and sampling for suspect asbestos containing materials (ACM) was conducted at the above referenced building. ACES personnel submitted a total of twenty-six (26) bulk samples of suspect ACM that may be impacted by the planned renovation project. Samples were collected by a NC Licensed Asbestos Inspector (DeWitt Whitten - #10706) and submitted to a NVLAP Accredited Asbestos Laboratory (EMSL in Charlotte, NC). Samples were analyzed using Polarized Light Microscopy (PLM) by EPA Method 600/R-93/116. Due to some materials consisting of more than one layer, a total of thirty-six (36) samples were analyzed by the laboratory. Samples included the following materials: roofing materials, drywall, spackling, lay-in ceiling tile, and floor tile and associated mastic. Please refer to the Sample Location Plan (Figure No. 1) and the Chain of Custody sheet in Appendices 1 and 2, respectively, for the approximate sample locations and the specific materials sampled.

During the survey, ACES personnel also reviewed a previously prepared report for Building M-104 provided by personnel of the Camp Lejeune Marine Corps' Environmental Protection office. The report was dated March 29, 2019 (print date). For the purpose of this report, the materials listed in the report are considered presumed asbestos containing materials. These materials are discussed further in Section 4.3 of this report. A copy of the provided report prepared by others is presented in Appendix 3.

3.2 Lead-based Paint

A North Carolina Lead-based Paint Risk Assessor (Mr. DeWitt Whitten, Risk Assessor #120118) performed a limited lead-based paint (LBP) survey of the interior and exterior painted surfaces at one hundred and thirty-five (135) locations for Building M-104. Please refer to the Sample Location Plans (Figure No. 2) and the XRF Field Data Sheets in Appendices 1 and 4, respectively, for the approximate test locations and the specific materials sampled. The testing was conducted using a INNOV-X Portable X-ray Fluorescence (XRF) Analyzer to screen surface coatings that may contain lead. The sampling for lead-based paint was not a comprehensive surface by surface testing of the paint (e.g. a HUD level survey), but consisted of testing representative painted surfaces for the presence of LBP. Surfaces tested included exterior and interior walls, exterior and interior doors and door frames, stair railings and components, columns, and interior roof support components.



4.0 FINDINGS AND RECOMMENDATIONS

4.1 Non-asbestos Containing Materials

Twenty-six (26) of the twenty-six (26) samples analyzed by EMSL did not contain asbestos (i.e. greater than one percent asbestos).

4.2 Asbestos Containing Materials & Presumed Asbestos Containing Materials (PACM)

Asbestos was not detected in the twenty-six (26) samples analyzed by EMSL. However, an asbestos report prepared by others indicated that friable ACM is present in the building. Materials identified that are known or presumed to contain asbestos are summarized in Table 1.

TABLE 1 – SUMMARY OF KNOWN or PRESUMED ACM						
ACM/PACM DESRIPTION	ACM/PACM DESRIPTION REPORTED LOCATION					
Mudded Fitting Debris	Southside (rear) Crawlspace under poly/sand barrier	1 sq. ft.				

4.3 Lead-based Paint

The results of the testing (Appendix 3) revealed that lead-based paint was present at seven (7) locations associated with Building M-104 as shown in Table 2.

TABLE 2 – SUMMARY OF LEAD-BASED PAINT FINDINGS										
FACILITY ID.	XRF TEST NO.	INT./EXT.	FEATURE	SUBSTRATE	COLOR	XRF RDG. ¹				
M-104	4	Exterior	Half-wall (porch)	Wood	White	2.54				
M-104	6	Exterior	Ceiling (porch)	Wood	White	> 5.0				
M-104	59	Exterior	Door Casing	Metal	White	> 1.0				
M-104	90	Interior	Column	Concrete	White	1.07				
M-104	101	Interior	Wall	Concrete	White	1.09				
M-104	120	Interior	Stair Frame	Wood	White	1.93				
M-104	121	Interior	Newell Post	Wood	White	2.23				

NOTE: 1) units in milligrams per square centimeter (mg/cm²)

4.4 Recommendations - ACM & Presumed ACM

Presumed Asbestos Containing Materials (PACM) were identified in the building as shown in Table 1. In their current condition, the materials are considered Friable ACM/PACM. For the purposes of renovation, the identified ACM and PACM should be considered Regulated Asbestos Containing Materials (RACM). These materials and any other suspect ACM where present should be removed prior to the renovation of the facilities by accredited personnel in accordance with applicable local, state, and federal regulations and guidelines. Disposal of the removed RACM should be disposed of in accordance with applicable local, state, and federal regulations/guidelines.

All ACM waste materials resulting from the renovation activities should be collected and disposed of in accordance with applicable state and federal regulations, the project



specifications, and the "Marine Corps Base (MCB) Camp Lejeune Contractor Environmental Guidelines".

4.5 Recommendations - Lead-based Paint

Lead-based paint (LBP), i.e. paint that contains lead equal to or exceeding one milligram per square centimeter (1.0 mg/cm²), was identified at seven (7) locations on the painted surfaces tested for the building as shown in Table 2. ACES recommends that the lead paint on the various surfaces not be disturbed as a part of the repair/renovation activities unless necessary as a result of the repair and/or renovation. If the painted surfaces must be disturbed, removal of the LBP should be performed in accordance with local, state, and federal regulations.

In addition, lead was identified on other painted surfaces but the concentration did not meet the definition of LBP. For painted surfaces where LBP was not present but lead was present and would be impacted by the renovation activities, the necessary protection for the potential exposure to lead that may be present should be addressed as outlined in applicable Occupational Safety and Health Administration (OSHA) regulatory standards.

All waste materials from the renovations should be collected and disposed of in accordance with applicable state and federal regulations, the project specifications, and the "Marine Corps Base (MCB) Camp Lejeune Contractor Environmental Guidelines".

5.0 LIMITATIONS

This report has been prepared for the exclusive use of Talley & Smith Architecture, Inc. and their agents with regard to Building M-104 located at Camp Johnson in Jacksonville, North Carolina. This report has been prepared in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made. Our observations are based upon conditions readily visible at the time of our site visit. We have not verified the completeness or accuracy of the information provided by others.

Materials identified as presumed ACM should be considered to contain asbestos or additional sampling and analysis should be performed to confirm or deny the presence of asbestos.

During the site visit, accessible areas were visually surveyed for the presence of suspect asbestos containing materials (ACM) and lead-based paints (LBP). Inaccessible areas, such as above ceilings or behind walls may have not been surveyed; therefore, all ACM and/or LBP may not have been identified. Areas inspected were those designated by the scope of services. As with any similar survey of this nature, actual conditions exist only at the precise locations from which bulk samples were collected and/or LBP samples measured. Certain inferences are based on the results of this sampling and related testing to form a professional opinion of conditions in areas beyond those from which the samples were collected. No other warranty, expressed or implied, is made.

Under this scope of services, ACES assumes no responsibility regarding response actions (e.g. O&M Plan, encapsulation, abatement, removal, worker notification, etc.) initiated as a result of these findings. It is important to note that the Building Owner has a number of responsibilities

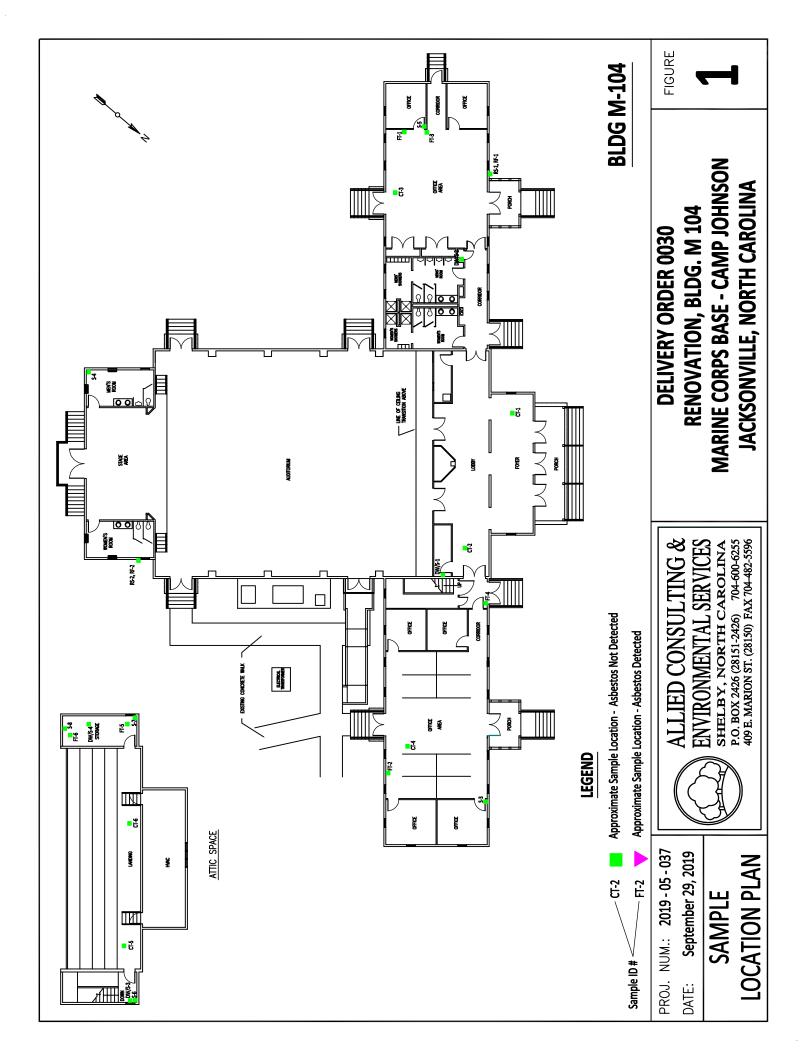


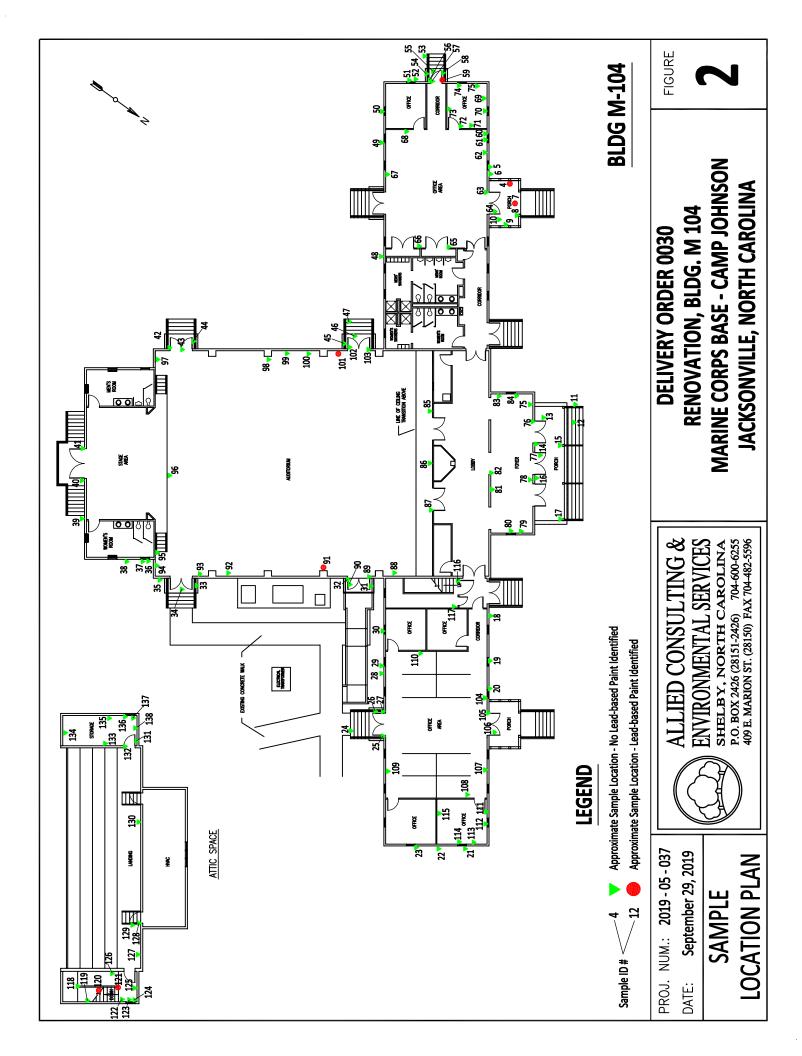
and obligations as found under 40 CFR 745 (also known as Title X) including notification and/or disclosure of all information concerning LBP to workers and buyers. ACES assumes no liability for the duties and responsibilities of the Building Owner with respect to compliance with these regulations. Compliance with regulations and response actions are the sole responsibility of the Building Owner and should be conducted in accordance with local, state and/or federal requirements, and should be performed by appropriately qualified and licensed personnel, as warranted.

ACES, by virtue of providing the services described in this report, does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies any conditions at the site that may present a potential danger to public health, safety, or the environment. It is the client's responsibility to notify the appropriate local, state, or federal public agencies as required by law, or otherwise to disclose, in a timely manner, any information that may be necessary to prevent any danger to public health, safety, or the environment. The contents of this report should not be construed in any way as a recommendation to purchase, sell, or further develop the project site.



APPENDIX 1 FIGURES







APPENDIX 2 ASBESTOS ANALYTICAL RESULTS CHAIN OF CUSTODY



Allied Consulting & Environmental Svs

EMSL Order: 411906390 Customer ID: ALLC25

Customer PO: Project ID:

Phone: (704) 232-0152

Fax:

Received Date: 06/26/2019 12:50 PM

Analysis Date: 07/02/2019 **Collected Date**: 06/24/2019

Project: M104/2019-06-037

P.O. Box 2426

Shelby, NC 28151

Attention: Dewitt Whitten

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			<u>Asbestos</u>			
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type	
RS-1 411906390-0001	Roof Shingle	Gray/Black Fibrous Heterogeneous	5% Glass	15% Quartz 10% Ca Carbonate 70% Non-fibrous (Other)	None Detected	
RS-2	Roof Shingle	Gray/Black Fibrous	5% Glass	5% Quartz 20% Ca Carbonate	None Detected	
411906390-0002		Homogeneous		70% Non-fibrous (Other)		
RF-1	Roof Felt	Black Non-Fibrous	65% Cellulose	35% Non-fibrous (Other)	None Detected	
411906390-0003		Homogeneous				
RF-2	Roof Felt	Black Fibrous	60% Cellulose	40% Non-fibrous (Other)	None Detected	
411906390-0004	4 1 51 40 40	Homogeneous		20% 2. 2. 1. 1.		
FT-1-Floor Tile 411906390-0005	1st Floor - 12x12 Floor Tile - Dk. Blue/Gray	Gray Non-Fibrous Homogeneous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected	
FT-1-Mastic	1st Floor - 12x12	Tan		5% Ca Carbonate	None Detected	
411906390-0005A	Floor Tile - Dk. Blue/Gray	Non-Fibrous Homogeneous		95% Non-fibrous (Other)	NOUE DETECTED	
FT-2-Floor Tile	1st Floor - 12x12 Floor Tile - Dk.	Gray Non-Fibrous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
411906390-0006	Blue/Gray	Homogeneous				
FT-2-Mastic	1st Floor - 12x12 Floor Tile - Dk.	Tan/Black Non-Fibrous	2% Cellulose	10% Ca Carbonate 88% Non-fibrous (Other)	None Detected	
411906390-0006A	Blue/Gray	Homogeneous				
FT-3-Floor Tile	1st Floor - 12x12 Floor Tile - Blue	Gray Non-Fibrous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
411906390-0007	(Patches)	Homogeneous				
FT-3-Mastic 411906390-0007A	1st Floor - 12x12 Floor Tile - Blue (Patches)	Tan Non-Fibrous		5% Ca Carbonate 95% Non-fibrous (Other)	None Detected	
	, ,	Homogeneous		40% Oc. Ocalesca 44	News Detected	
FT-4-Floor Tile 411906390-0008	1st Floor - 12x12 Floor Tile - Blue (Patches)	Gray/Blue Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
FT-4-Mastic	1st Floor - 12x12 Floor Tile - Blue	Tan Non-Fibrous	1% Cellulose	5% Ca Carbonate 94% Non-fibrous (Other)	None Detected	
411906390-0008A	(Patches)	Homogeneous				
CT-1	1st Floor - Lay-In Ceiling Tile - Type 1	Gray/White Fibrous	60% Cellulose 10% Min. Wool	15% Perlite 15% Non-fibrous (Other)	None Detected	
411906390-0009		Heterogeneous				
CT-2	1st Floor - Lay-In Ceiling Tile - Type 1	Gray/White Fibrous	60% Cellulose 10% Min. Wool	20% Perlite 10% Non-fibrous (Other)	None Detected	
411906390-0010		Homogeneous				
CT-3	1st Floor - Lay-In Ceiling Tile - Type 2	Gray/White Fibrous	60% Cellulose 10% Min. Wool	15% Perlite 15% Non-fibrous (Other)	None Detected	
411906390-0011		Heterogeneous				
CT-4	1st Floor - Lay-In Ceiling Tile - Type 2	Gray/White Fibrous	60% Cellulose 10% Min. Wool	20% Perlite 10% Non-fibrous (Other)	None Detected	
411906390-0012		Homogeneous				

Initial report from: 07/03/2019 08:12:31



EMSL Order: 411906390 Customer ID: ALLC25

Customer PO: Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Asbe	stos	Asbestos	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type	
DW/S-1-Drywall	1st Floor - Drywall/Spackling	Gray Fibrous Heterogeneous	10% Cellulose	90% Non-fibrous (Other)	None Detected	
DW/S-1-Joint Compound	1st Floor - Drywall/Spackling	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
411906390-0013A						
DW/S-1-Tape	1st Floor - Drywall/Spackling	Tan Non-Fibrous	100% Cellulose		None Detected	
	1st Floor -	Homogeneous Brown	10% Cellulose	90% Non-fibrous (Other)	None Detected	
DW/S-2-Drywall 411906390-0014	Drywall/Spackling	Fibrous Homogeneous	10% Cellulose	90 % Noti-librous (Other)	None Detected	
DW/S-2-Joint Compound	1st Floor - Drywall/Spackling	White Non-Fibrous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
	, ,	Homogeneous		, ,		
411906390-0014A	=:					
DW/S-2-Tape 411906390-0014B	1st Floor - Drywall/Spackling	Tan Fibrous	100% Cellulose		None Detected	
	1at Floor Charles	Homogeneous		400/ Co Carbonata	None Detected	
S-3 411906390-0015	1st Floor - Spackling	White Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
S-4	1st Floor - Spackling	White		40% Ca Carbonate	None Detected	
5-4 411906390-0016	ist Floor - Spackling	Non-Fibrous Homogeneous		60% Non-fibrous (Other)	None Detected	
S-5	1st Floor - Spackling	White Non-Fibrous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
411906390-0017		Homogeneous		,		
CT-5	2nd Floor - Lay-In Ceiling Tile - Type 3	Gray/White Fibrous	60% Cellulose 10% Min. Wool	15% Perlite 15% Non-fibrous (Other)	None Detected	
411906390-0018		Heterogeneous				
CT-6	2nd Floor - Lay-In Ceiling Tile - Type 3	Gray/White Fibrous	60% Cellulose 10% Min. Wool	20% Perlite 10% Non-fibrous (Other)	None Detected	
411906390-0019		Homogeneous				
FT-5-Floor Tile	2nd Floor - 12x12 Floor Tile & Mastic	Gray/Blue Non-Fibrous Homogeneous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
FT-5-Mastic	2nd Floor - 12x12 Floor Tile & Mastic	Tan/Black Non-Fibrous	3% Cellulose	97% Non-fibrous (Other)	None Detected	
411906390-0020A		Homogeneous				
T-6-Floor Tile	2nd Floor - 12x12 Floor Tile & Mastic	Gray/Blue Non-Fibrous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
411906390-0021		Homogeneous				
FT-6-Mastic	2nd Floor - 12x12 Floor Tile & Mastic	Tan/Black Non-Fibrous	5% Cellulose	5% Ca Carbonate 90% Non-fibrous (Other)	None Detected	
411906390-0021A		Homogeneous				
DW-3	2nd Floor - Drywall	Gray Fibrous	3% Cellulose	97% Non-fibrous (Other)	None Detected	
411906390-0022	Ond Flore D	Homogeneous	50/ 0 " '	040/ Nov. 51	Maria D. C. C. C.	
DW-4 411906390-0023	2nd Floor - Drywall	Brown/Gray Fibrous Homogeneous	5% Cellulose 1% Glass	94% Non-fibrous (Other)	None Detected	
S-6	2nd Floor - Spackling	White Non-Fibrous		40% Ca Carbonate 60% Non-fibrous (Other)	None Detected	
411906390-0024		Homogeneous		00 /0 NOTHIDIOUS (Other)		

Initial report from: 07/03/2019 08:12:31



EMSL Order: 411906390 Customer ID: ALLC25

Customer PO: Project ID:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-A	<u>Asbestos</u>	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
S-7	2nd Floor - Spackling	White		40% Ca Carbonate	None Detected
		Non-Fibrous		60% Non-fibrous (Other)	
411906390-0025		Homogeneous			
S-8	2nd Floor - Spackling	White		40% Ca Carbonate	None Detected
		Non-Fibrous		60% Non-fibrous (Other)	
411906390-0026		Homogeneous			

Analyst(s)

Eric Loomis (19) Katherine Sluder (17) Lee Plumley, Laboratory Manager or Other Approved Signatory

Evan L Plumber

EMSL maintains liability limited to cost of analysis. The above analyses were performed in general compliance with Appendix E to Subpart E of 40 CFR (previously EPA 600/M4-82-020 "Interim Method"), but augmented with procedures outlined in the 1993 ("final") version of the method. 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. Interpretation and use of test results are the responsibility of the client. All samples received in acceptable condition 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. EMSL recommends gravimetric reduction for all non-friable organically bound materials prior to analysis. Estimation of uncertainty is available on request.

Samples analyzed by EMSL Analytical, Inc. Pineville, NC NVLAP Lab Code 200841-0, VA 3333 00312

Initial report from: 07/03/2019 08:12:31

OrderID: 411906390



Asbestos Chain of Custody EMSL Order Number (Lab Use Only):

411906390

PHONE: FAX:

Company Name : ACE	S		EMSL Custo	omer ID: ALL	C25		
Street: PO Box 2426			City: Shelb	у	State/Provin	ice: NC	
Zip/Postal Code: 28151		Country: USA	Telephone #	¢: 704-600-6255	Fax #: 7044	82-5596	
Report To (Name): DeWi	tt Whitten		Please Prov	ide Results: 🔲 F	ax 🗹 Email	8	
Email Address: dewitt@	@aces-en	v.com	Purchase O	rder:			
Project Name/Number:	m104/	2019-06-037		ct ID (Internal Use C		4 1	
U.S. State Samples Taker		ш. По Пож		: Commercial/Ta		dential/Tax Exempt	
	EMSL-B	ill to: ☑ Same ☐ Different - Third Party Billing requires wri			ments**		
		Turnaround Time (TAT)					
*For TEM Air 3 hr through 6 hr		□ 24 Hour		our TEM AHERA or EPA	Level II TAT. You	will be asked to sign an	
PCM - Air Check if san from NY		TEM – Air 4-4.5hr TAT		TEM- Dust			
NIOSH 7400		AHERA 40 CFR, Part 76	63	Microvac - AST	M D 5755		
w/ OSHA 8hr. TWA		☐ NIOSH 7402		Wipe - ASTM D			
PLM - Bulk (reporting lim	it)	EPA Level II		Carpet Sonicat	ion (EPA 600/J-	93/167)	
☑PLM EPA 600/R-93/116		☐ ISO 10312		Soil/Rock/Vermic			
PLM EPA NOB (<1%)		TEM - Bulk		PLM EPA 600/	R-93/116 with m	illing prep (<1%)	
Point Count		TEM EPA NOB		PLM EPA 600/	R-93/116 with m	illing prep (<0.25%)	
400 (<0.25%) 1000	(<0.1%)	NYS NOB 198.4 (non-friable-NY)		TEM EPA 600/R-93/116 with milling prep (<0.1%)			
Point Count w/Gravimetric	(-0.40/)	Chatfield SOP		TEM Qualitative via Filtration Prep			
400 (<0.25%) 1000 (TEM Mass Analysis-EPA 600 sec. 2.5		TEM Qualitative via Drop Mount Prep Cincinnati Method EPA 600/R-04/004 – PLM/TEM			
NYS 198.1 (friable in N		TEM - Water: EPA 100.2		(BC only)			
NYS 198.6 NOB (non-f	friable-NY)	Fibers >10µm Waste	Drinking	Other:			
NYS 198.8 SOF-V NIOSH 9002 (<1%)		All Fiber Sizes Waste	Drinking				
Check For Positive St	op – Clearly	Identify Homogenous Grou	p Filter	Pore Size (Air Sam	ples): 0.8µ	ım0.45μm	
Samplers Name:	eleitt.	Whiteen	Samplers	Signature:	lwar		
Sample #		Sample Descript	ion		me/Area (Air) A # (Bulk)	Date/Time Sampled	
_		DI CALL	.1011	- 1	A# (Bulk)	24 June 19	
RS-1, Z		Root Shingle	٧			Pru.	
RF-1, Z		Root Felt		100-			
FT-1,Z	12×1	2 FloorTile - A	& Bluefar	ry PR			
FT-3,4	12 X I	2 Floor Tile 1	3/un (Par	takes PAR			
CT-1,2	Lo	ey-mi Cesky Tite	- Type	1 HARL		}	
Client Sample # (s):	see als	rove & rest price		Total #	of Samples:	26	
Relinquished (Client):	, well	Date Date	: 26 To	m 2019	Time	1247	
	ye Neson	Date	6/26/19		Time	: 12:50pm W/W	
Comments/Special Instru	etions:						

Page 1 of ____ pages

OrderID: 411906390



Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

411906390

PHONE: FAX:

2019-06-037
Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CT-3,4			24 June 119
	Drywall Sparkly - 1th FLR Sprokly - 1th FLR		- FM
DW/5-1,2	Drywall spacing - 1" FLE	1	
5-3,4,5	Sprokly - 1st fil		,
	,		21 77 10
CT-5,6	Lay-in Cardy Tile - Type 3-2	WAFEQ.	24 Taw 19 PM
FT-5.6	Lay-in Cerdy Tile - Type 3-2 12 x12 Floor Tile & Martin - 2001	20	
DW-3,4	Day wall - 2 M FIR		
5-6,7,8	Day wall - 2 M Fire Sparkly - 2 M Fire		
4/1/0	of action of		
Mark to the second	, ,		
-9-57			
3.70 m			
		+	
*Comments/Special Ins	structions:		
John Market Provide His			
-			

Page Z of Z pages

Controlled Document - Asbestos COC - R10 - 05/09/2016



APPENDIX 3 ASBESTOS REPORT BY OTHERS

ASBESTOS INSPECTION REPORT of: Building # M104 MCB CAMP LEJEUNE



Print Date

Friday, March 29, 2019

INSPECTION SUMMARY

BLDG#:

M104

YEAR BUILT: 1943

OCCUPANT:

US NAVY- FIELD MEDICAL SERVICE

ASBESTOS MANAGER: Billy Parkin 451-5837

SCHOOL

BUILDING COMMENTS:

HAZ RANK 2A/YELLOW [AH AUG2016] ACM DEBRIS UNDER POLY SAND BARRIER IN CRAWLSPACE, DO NOT PENETRATE

AUG2016

ACM ASSUMED TO REMAIN AS PVS.

APR2014

ACM DEBRIS UNDER POLY SAND BARRIER IN CRAWLSPACE, DO NOT PENETRATE

APR2011

FRIABLE ACM DEBRIS IN SOUTH CNTR CRAWLSPACE. PVS. ACM REMAINS, ADDL SAMPLING, NO ADDL ACM ID'D

OCT08

PVS. ACM REMAINS, NO ADDITIONAL ACM IDENTIFIED

AUG05

PVS. ACM REMAINS

AUG01 ACM INCLUDES:

MUDDED FITTING DEBRIS

NOTIFICATION OF ACM IN BUILDING

NOTICE: The following asbestos-containing materials have been identified in this structure. Refer to survey findings for additional information or contact the Asbestos Program Manager. Please note ACM that is intact and undisturbed is not considered a significant health hazard to building occupants.

Friable ACM(s) identified

DESCRIPTION	LOCATION	Date	Quantity
MUDDED FITTING DEBRIS	SOUTHSIDE (REAR) CRAWLSPACE UNDER POLY/ SAND BARRIER (ASSUMED)	10/22/2016	1 SF
MUDDED FITTING DEBRIS	SOUTHSIDE (REAR) CRAWLSPACE UNDER POLY/ SAND BARRIER (ASSUMED)	4/28/2014	1 SF
MUDDED FITTING DEBRIS	SOUTHSIDE (REAR) CRAWLSPACE UNDER POLY/ SAND BARRIER (ASSUMED)	5/10/2011	1 SF

Non-friable ACM(s) identified

DESCRIPTION	LOCATION	Date	Quantity

No non friable ACM records found in database

Print Date: Friday, March 29, 2019 Page 2 of 7

Tested Non ACM or REMOVED Materials

DESCRIPTION	LOCATION	Date
DUCT SEALANT, RED	DUCT SYSTEM SEAMS THROUGHOUT	8/20/2001
2'x2' CEILING TILE,	SECOND FLOOR NORTH BALCONY AREA	8/20/2001
ASPHALT SHINGLE AND TAR PAPER	ROOFING SYSTEM	8/20/2001
PLASTER MATERIAL	SOUTHSIDE (REAR) CRAWLSPACE DEBRIS (PREVIOUS WALLS)	8/20/2001
MUDDED FITTING DEBRIS	SOUTHSIDE (REAR) CRAWLSPACE	8/20/2001
12" GRAY FLOOR TILE AND ADHESIVE	WEST WING HEAD AREA	8/20/2001
12" BLACK FLOOR TILE AND ADHESIVE	WEST WING HEAD AREA	8/20/2001
FIBERGLASS INSULATION SEALANT	STEAM PIT PIPING SYSTEMS	8/20/2001
2'x2' CEILING TILE,	MIXED USE THROUGHOUT BUILDING	8/20/2001
12" LT. BLUE FLOOR TILE AND ADHESIVE	AUDITORIUM AREA	8/20/2001
2'x2' CEILING TILE,	MIXED USE THROUGHOUT BUILDING	8/20/2001
12" GRAY FLOOR TILE AND ADHESIVE	MIXED USE THROUGHOUT BUILDING	8/20/2001
DRYWALL AND JOINT MATERIAL	THROUGHOUT INTERIOR OF STRUCTURE	8/20/2001
BLACK VINYL BASE AND ADHESIVE, 4"	MIXED USE THROUGHOUT BUILDING	8/20/2001
GRAY VINYL BASE AND ADHESIVE, 4"	MIXED USE THROUGHOUT BUILDING	8/20/2001
12" WHITE w/ GRAY FLOOR TILE AND ADHESIVE	NORTH WINGS	8/20/2001
ROOFING SEALANT, GRAY	AT STEP FLASHING AREAS	8/20/2001
2'x2' CEILING TILE,	MIXED USE THROUGHOUT THE BUILDING	8/20/2001
INTERIOR CAULKING,	METAL REPLACEMENT WINDOWS	4/13/2011
VAPOR BARRIER	ATTIC DORMERS AND EXTERIOR WALLS	4/13/2011
EXTERIOR CAULKING,	METAL REPLACEMENT WINDOWS	4/13/2011
12" BLUE FLOOR TILE AND ADHESIVE	NEW TILE, THROUGHOUT	4/13/2011
PIPE INSULATION	ATTIC HVAC EQUIPMENT	8/20/2001
MUDDED FITTING DEBRIS	SOUTHSIDE (REAR) CRAWLSPACE	8/17/2005
MUDDED FITTING DEBRIS	SOUTHSIDE (REAR) CRAWLSPACE	10/8/2008
12" WHITE w/ GRAY FLOOR TILE AND ADHESIVE	AUDITORIUM AREA	10/8/2008
MUDDED FITTING DEBRIS	SOUTHSIDE (REAR) CRAWLSPACE	4/13/2011
12" GRAY FLOOR TILE AND ADHESIVE	EAST WING UNDER SAFE (OLD TILE REMOVED, REPLACED w/HM20 THROUGHOUT)	4/13/2011
DRYWALL AND JOINT MATERIAL	THROUGHOUT INTERIOR OF STRUCTURE	4/13/2011

HEALTH ASPECTS:

ACM only presents a health hazard when asbestos fibers are airborne and inhaled. Avoid disturbance which will release fibers. The presence of asbestos does not constitute a health hazard.

Print Date: Friday, March 29, 2019

CONDITIONS TO AVOID: Do not disturb or cause damage to ACM. Do not sand, grind or abrade materials or

cause damage with any type of equipment.

REPORTS OF DAMAGE: Report any damage, dust or debris that may come from ACM or suspect ACM, or any

change in the condition of materials, or accidental disturbance to the Asbestos Program

Phone: (910) 451-5837

Manager.

RESPONSE ACTION: Corrective action initiated to minimize fiber release and protect personnel.

INSPECTION: ACM will be inspected periodically to evaluate any changes in condition.

RECORDKEEPING: The Camp Lejeune Asbestos Program Manager maintains a copy of the survey for the

building.

CAMP LEJEUNE Asbestos Program Manager

Print Date: Friday, March 29, 2019

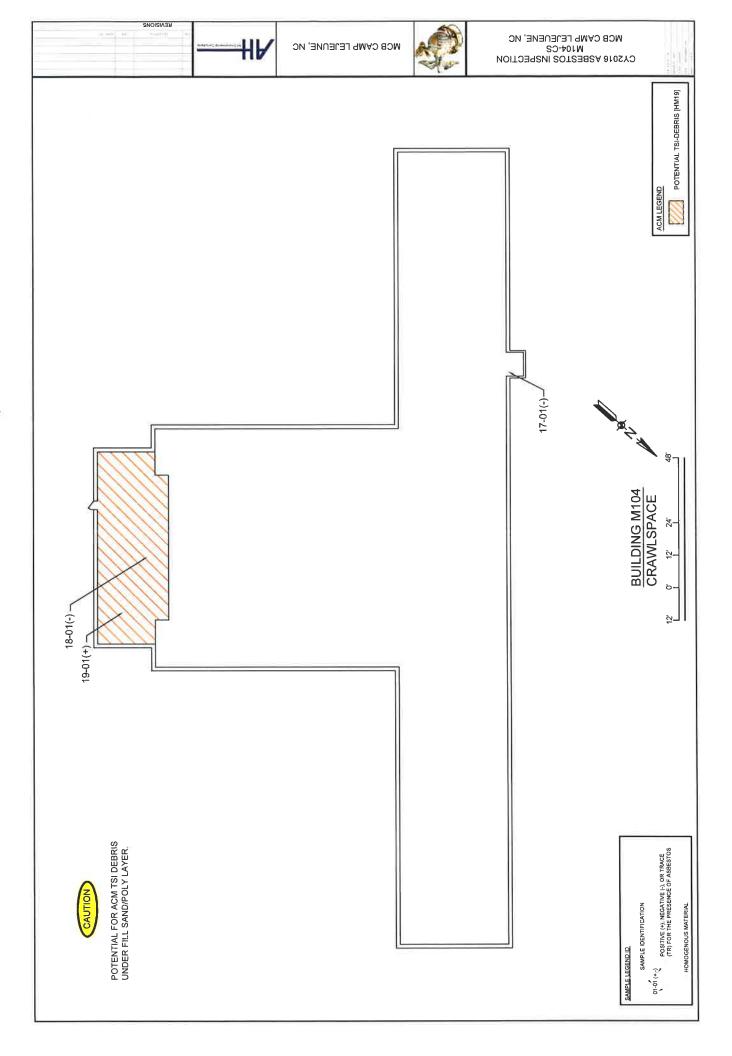
Page 4 of 7

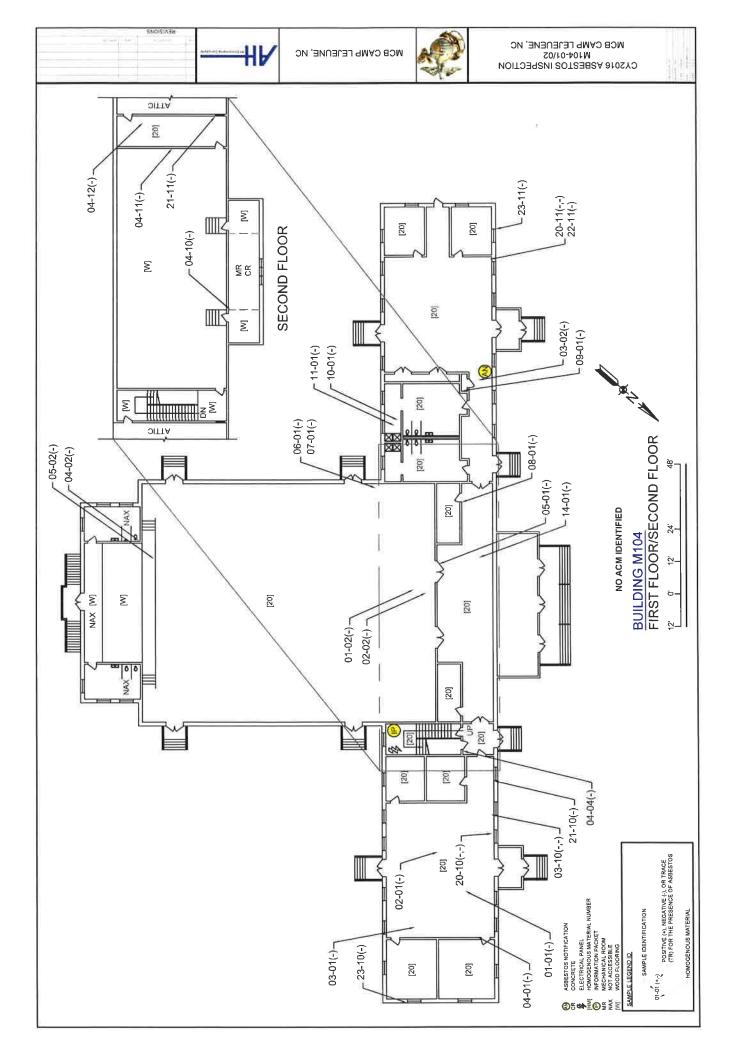
SAMPLES COLLECTED

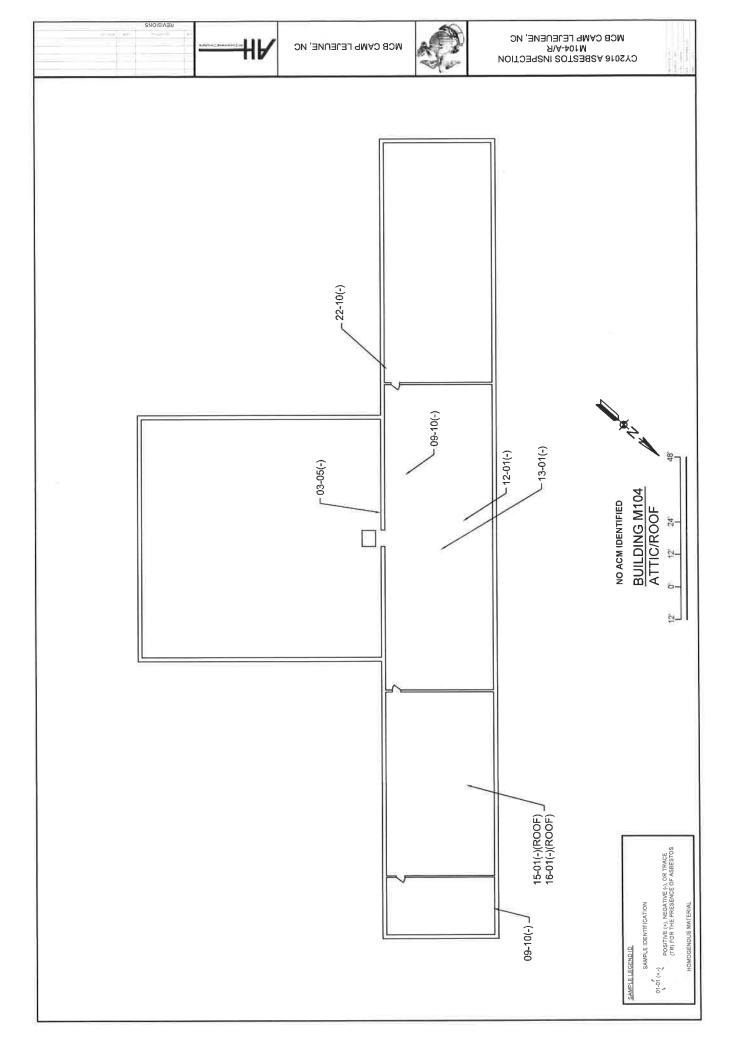
Sample	HA	Descr	ription	Sample Date	Sample Location		Amo (%)	
M104-01-01	01	2'x2' CEILING TILE,	TYPE I	8/20/2001	EAST WING	0	0	0
M104-01-02	01	2'x2' CEILING TILE,	TYPE I	8/20/2001	AUDITORIUM AREA	0	0	0
M104-02-01	02	2'x2' CEILING TILE,	TYPE II	8/20/2001	EAST WING	0	0	0
M104-02-02	02	2'x2' CEILING TILE,	TYPE II	8/20/2001	AUDITORIUM AREA	0	0	0
M104-03-01	03	12" GRAY FLOOR TILE AND ADHESIVE		8/20/2001	EAST WING	0	0	0
M104-03-02	03	12" GRAY FLOOR TILE AND ADHESIVE		8/20/2001	WEST WING	0	0	0
M104-03-10	03	12" GRAY FLOOR TILE AND ADHESIVE		4/13/2011	EAST WING, NORTH CNTR UNDER SAFE	0	0	0
M104-03-10tem	03	12" GRAY FLOOR TILE AND ADHESIVE		4/13/2011	EAST WING, NORTH CNTR UNDER SAFE	0	0	0
M104-04-01	04	DRYWALL AND JOINT MATERIAL		8/20/2001	EAST WING	0	0	0
M104-04-02	04	DRYWALL AND JOINT MATERIAL		8/20/2001	LOBBY AREA	0	0	0
M104-04-03	04	DRYWALL AND JOINT MATERIAL		8/20/2001	WEST WING	0	0	0
M104-04-04	04	DRYWALL AND JOINT MATERIAL		8/20/2001	2ND FLOOR/ OLD BALCONY AREA	0	0	0
M104-04-10	04	DRYWALL AND JOINT MATERIAL		4/13/2011	2ND FL NORTH MECH RM WALL	0	0	0
M104-04-11	04	DRYWALL AND JOINT MATERIAL		4/13/2011	2ND FL MECH RM, WEST WALL	0	0	0
M104-04-12	04	DRYWALL AND JOINT MATERIAL		4/13/2011	2ND FL MECH RM, WEST CEILING	0	0	0
M104-05-01	05	2'x2' CEILING TILE,	TYPE III	8/20/2001	AUDITORIUM AREA	0	0	0
M104-05-02	05	2'x2' CEILING TILE,	түре ііі	8/20/2001	Not Available	0	0	0
M104-06-01	06	12" LT. BLUE FLOOR TILE AND ADHESIVE		8/20/2001	AUDITORIUM AREA	0	0	0
M104-07-01	07	BLACK VINYL BASE AND ADHESIVE, 4"		8/20/2001	AUDITORIUM AREA, NW	0	0	0

Sample	HA	Descr	iption	Sample Date	Sample Location		Amo (%)		
M104-08-01	08	GRAY VINYL BASE AND ADHESIVE, 4"		8/20/2001	CNTR NORTH HALL	0	0	0	
M104-09-01	09	12" WHITE w/ GRAY FLOOR TILE AND ADHESIVE		8/20/2001	NORTHSIDE, WEST WING CNTR	0	0	0	
M104-09-10	09	12" WHITE w/ GRAY FLOOR TILE AND ADHESIVE		10/8/2008	STORAGE ROOM	0	0	0	
M104-10-01	10	12" GRAY FLOOR TILE AND ADHESIVE		8/20/2001	WEST WING, SHOWER AREA	0	0	0	
M104-11-01	11	12" BLACK FLOOR TILE AND ADHESIVE		8/20/2001	WEST WING SHOWER AREA	0	0	0	
M104-12-01	12	PIPE INSULATION	BLACK	8/20/2001	ATTIC HVAC EQUIPMENT	0	0	0	
M104-13-01	13	DUCT SEALANT, RED		8/20/2001	2ND FL NORTH, OLD BALCONY	0	0	0	
M104-14-01	14	2'x2' CEILING TILE,	TYPE IV	8/20/2001	2ND FLOOR BALCONY AREA	0	0	0	
M104-15-01	15	ASPHALT SHINGLE AND TAR PAPER		8/20/2001	EAST WING, NORTH CNTR	0	0	0	
M104-16-01	16	ROOFING SEALANT, GRAY		8/20/2001	EAST WING ROOF, NORTH CNTR	0	0	0	
M104-17-01	17	FIBERGLASS INSULATION SEALANT	TAN	8/20/2001	NW STEAM PIT	0	0	0	
M104-18-01	18	PLASTER MATERIAL		8/20/2001	SOUTH CNTR CRAWLSPACE	0	0	0	
M104-19-00ri05	19	MUDDED FITTING DEBRIS		8/17/2005	N/A	9	9	9	
M104-19-00ri07	19	MUDDED FITTING DEBRIS		10/8/2008	N/A	9	9	9	-
M104-19-00ri10	19	MUDDED FITTING DEBRIS		4/13/2011	N/A	19	19	19	
M104-19-00ri13	19	MUDDED FITTING DEBRIS		4/28/2014	N/A	9	9	9	
M104-19-00ri13	19	MUDDED FITTING DEBRIS		5/10/2011	N/A	9	9	9	_
M104-19-00ri16	19	MUDDED FITTING DEBRIS		8/22/2016	N/A	9	9	9	
M104-19-01	19	MUDDED FITTING DEBRIS		8/20/2001	SOUTH CRAWLSPACE, EAST	35	0	0	

	Sample	HA	Descr	iption	Sample Date	Sample Location		Amo (%)	
	M104-20-10	20	12" BLUE FLOOR TILE AND ADHESIVE		4/13/2011	EAST WING, NORTH CNTR	0	0	0
	M104-20-11	20	12" BLUE FLOOR TILE AND ADHESIVE		4/13/2011	WEST WIGN, NW MAIN RM	0	0	0
	M104-21-10	21	INTERIOR CAULKING,	WHITE	4/13/2011	EAST WING, NW WINDOW	0	0	0
	M104-21-11	21	INTERIOR CAULKING,	WHITE	4/13/2011	2ND FL MECH RM, NW	0	0	0
	M104-22-10	22	VAPOR BARRIER	BLACK	4/13/2011	WEST WING ATTIC, SE	0	0	0
	M104-22-11	22	VAPOR BARRIER	BLACK	4/13/2011	WEST WING, NW OVHD	0	0	0
	M104-23-10	23	EXTERIOR CAULKING,	WHITE	4/13/2011	EAST WING, EAST END, SOUTH WINDOW	0	0	0
14	M104-23-11	23	EXTERIOR CAULKING,		4/13/2011	WEST WING, NORTHSIDE WEST WINDOW	0	0	0









APPENDIX 4 XRF FIELD DATA SHEETS



	b – Blue G – Green	25 July 25 Jul	ATURE READING 2.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	2019 – 05 2019 – 05 LEVEL 1st 1st 1st 1st 1st 1st 1st 1s	0. De EST L(Name	Building M 104; Camp Johr COMPONENT Half wall (porch) Wall (siding) Ceiling Column Door Door Door Column Wall (siding) Column Wall (siding) Wall (siding) Window sill Window casing Window sill Yell (siding) Window sill Window sill Window casing	/ADDRESS/UNIT NO. INNOVX LBI WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW
Bk – Black						T – Tan Br – Brown	Y – Yellow Bk – Black	DW – drywall B – Brick
2) W-White R – Red 3) mg/cm2 – miligrams/square centimeter B – Blue G – Green Y – Yellow T – Tan	2) \\\\.\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		0.00	1st		> ·	Window casing	- 1
Window casing W W Tolon mg/cm2 2) W-White R - Red 3) mg/cm2 - milligrams/square centimeter R-Buse G-Green 9 - Blue G-Green T-Tan	M Window casing W 1st 0.00 mg/cm ²			1st		W	Wall (siding)	Vinyl
yl Wall (siding) W 1st 0.00 mg/cm² Window casing W 1st 0.00 mg/cm² Window casing W R - Red 3) mg/cm² - milligrams/square centimeter mg/cm² B - Blue G - Green T - Tan T - Tan	Vinyl Wall (siding) W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm²			1st		M	Window sill	Σ
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yl Wall (siding) W 1st 0.00 mg/cm² yl Wall (siding) W 1st 0.00 mg/cm² yl Wall (siding) W 1st 0.00 mg/cm² yl Window casing W 1st 0.00 mg/cm² yl Window sill W 1st 0.00 mg/cm² yl Wall (siding) W 1st 0.00 mg/cm² yl Window casing W 1st 0.00 mg/cm² yl Window casing W 1st 0.00 mg/cm² yl Window casing W 1st 0.00 mg/cm² y - Vellow T - Tan T - Tan T - Tan mg/cm² mg/cm²	MM Column W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² Minyl Wall (siding) W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² Vinyl Wall (siding) W mg/cm² mg/cm² M Window casing W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm²			1st		W	Door frame	Σ
Indext of the proof	MM Door frame W 1st 0.00 mg/cm² M Column W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² Vinyl Window sill W 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm²			1st		%	Door	Σ
Door frame	MM Door frame W 1st 0.00 mg/cm² MI Column W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² Vinyl Window casing W 1st 0.00 mg/cm² M Window casing W 0.00 mg/cm² mg/cm² M Window casing W 0.00 mg/cm² mg/cm²			1st		Gr	Steps	O
Steps Gr 1st 0.00 mg/cm² In Door frame W 1st 0.00 mg/cm² In Column W 1st 0.00 mg/cm² In Wall (siding) W 1st 0.00 mg/cm² In Window casing W 0.00 mg/cm² 0.00 mg/cm² In Window casing W 0.00 mg/cm² 0.00 mg/cm²	C Steps Gr 11t 0.00 mg/cm² M Door frame W 1st 0.00 mg/cm² M Door frame W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² M Window casing W 0.00 mg/cm² M Window casing W 0.00 mg/cm²			1st		Gr	Floor (porch)	W
Floor (porch)	W Floor (porch) Gr Ist 0.00 mg/cm² M Steps Gr 1st 0.00 mg/cm² M Door frame W 1st 0.00 mg/cm² M Column W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² Vinyl Window sill W 1st 0.00 mg/cm² M Window sill W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² Mnyl Window casing W 1st 0.00 mg/cm² Mnyl Window casing W 1st 0.00 mg/cm² Mnyl Window casing W 0.00 mg/cm² Mnyl Window casing W 0.00 mg/cm² Mnyl Window casing W 0.00 mg/cm² Mn Window casing W <t< th=""><td></td><td></td><td>1st</td><td></td><td>W</td><td>op rail of half wall</td><td></td></t<>			1st		W	op rail of half wall	
Top rail of half wall W	M Top rail of half wall W 1st 0.00 mg/cm² W Floor (porch) Gr 1st 0.00 mg/cm² C Steps Gr 1st 0.00 mg/cm² M Door frame W 1st 0.00 mg/cm² M Column W 1st 0.00 mg/cm² Vinyl Wall (siding) W 1st 0.00 mg/cm² M Window sill W 1st 0.00 mg/cm² M Window casing W 0.00 <td></td> <td></td> <td>1st</td> <td></td> <td>W</td> <td>Door</td> <td>Σ</td>			1st		W	Door	Σ
Top rail of half wall W	MM Door W 1st 0.00 mg/cm² W Floor (porch) Gr 1st 0.00 mg/cm² V Floor (porch) Gr 1st 0.00 mg/cm² M Door frame W 1st 0.00 mg/cm² M Column W 1st 0.00 mg/cm² Minyl Wall (siding) W 1st 0.00 mg/cm² M Column W 0.00 mg/cm² mg/cm² Minyl Wall (siding) W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² M Window casing W 0.00			1st		>	Column	Σ
Column	MM Column W 1st 0.00 mg/cm² M Door W 1st 0.00 mg/cm² M Top rail of half wall W 1st 0.00 mg/cm² W Floor (porch) Gr 1st 0.00 mg/cm² M Door frame W 1st 0.00 mg/cm² M Column W 1st 0.00 mg/cm² Minyl Wall (siding) W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² M Window casing W 1st 0.00 mg/cm² Minyl Window casing W 1st 0.00 mg/cm² Minyl Window casing W 0.00 mg/cm² Minyl Window casing W 0.00 mg/cm² Minyl Window casing W 0.00 mg/cm² Minyl Winyl 0.00 <td< th=""><td></td><td></td><td>1st</td><td></td><td>*</td><td>Ceiling</td><td>W</td></td<>			1st		*	Ceiling	W
Column W Seiling M	W Ceiling W 11° 5.0 mg/cm² M Column W 15° 6 0.00 mg/cm² M Door W 15° 6 0.00 mg/cm² W Top rail of half wall W 15° 6 0.00 mg/cm² W Floor (porch) Gr 15° 6 0.00 mg/cm² W Steps Gr 15° 6 0.00 mg/cm² M Door frame W 15° 6 0.00 mg/cm² Minyl Wall (siding) W 15° 6 0.00 mg/cm² Vinyl Wall (siding) W 15° 6 0.00 mg/cm² M Window casing W 0.00 mg/cm² 0.00 mg/cm²			1st		X	Wall (siding)	Vinyl
γI Door Celing W mg/cm² γI Celing W 11° >5.0 mg/cm² γI Column W 11° >5.0 mg/cm² γI Door W 11° 0.00 mg/cm² γI Floor (porch) Gr 11° 0.00 mg/cm² γI Steps GG 11° 0.00 mg/cm² γI Door frame W 11° 0.00 mg/cm² γI Door frame W 0.00 mg/cm² mg/cm²	Vinyl Wall (siding) W 11° 0.00 mg/cm² W Ceiling W 11° >5.0 mg/cm² M Column W 11° >5.0 mg/cm² M Door W 11° 0.00 mg/cm² W Top rail of half wall W 11° 0.00 mg/cm² W Steps Gr 11° 0.00 mg/cm² W Gr W 11° 0.00 mg/cm² M Door frame W 11° 0.00 mg/cm² M Column W W 0.00 mg/cm² Vinyl Wall (siding) W 11° 0.00 mg/cm² M Window casing W 11° 0.00 mg/cm² Vinyl Window casing W 0.00 mg/cm² Winyl Window casing W 0.00 mg/cm² W Window casing W 0.00	_		1st		W	Window sill	Σ
yl Windowsill W Public Modernal particle W Magnetization	MM Window sill W magcm² VINY Wall (siding) W 11° 0.00 mg/cm² W Ceiling W 11° 0.00 mg/cm² M Column W 11° 0.00 mg/cm² M Door W 11° 0.00 mg/cm² W Steps Gr 11° 0.00 mg/cm² M Door frame W 11° 0.00 mg/cm² M Door frame W 11° 0.00 mg/cm² M Column W W 0.00 mg/cm²			1st		W	Half wall (porch)	W
Interval (porch) W Interval (porch) W Interval (porch) W Interval (porch)	W Half wall (porch) W magcm² M Window sill W 11° 0.00 mg/cm² VIN/I Wall (siding) W 11° 0.00 mg/cm² W Celling W 11° 0.00 mg/cm² M Column W 11° 0.00 mg/cm² M Door W 11° 0.00 mg/cm² W Floor (porch) Gr 11° 0.00 mg/cm² W Door frame W 11° 0.00 mg/cm² M Door frame W 11° 0.00 mg/cm² M Door frame W 11° 0.00 mg/cm² M Column W 11° 0.00 mg/cm² M Column W 11° 0.00 mg/cm² M Column W 11° 0.00 mg/cm² Min/l Win/l W 11° 0.00			LEVEL	EST LOCATION		COMPONENT	JBSTRATE ¹
vaTE¹ COMPONENT COLOR² TEST LOCATION LEVEL XRR READING UNITS I Half wall (porch) W 11° 2.54 mg/cm² I Window sill W 11° 0.00 mg/cm² I Ceiling W mg/cm² mg/cm² I Column W 11° 0.00 mg/cm² I Floor (porch) Gr 11° 0.00 mg/cm² I Floor (porch) Gr 11° 0.00 mg/cm² I Floor (porch) Gr mg/cm² mg/cm² mg/cm² I Floor (porch) Gr M mg/cm² mg/cm² I W M mg/cm² mg/cm² I W M mg/cm² mg/cm² <th>WM COMPONENT COLOR² TEST LOCATION LEVEL XRR FREADING UNITS² W Half wall (porch) W 11°° 2.54 mg/cm² MW Window sill W 11°° 0.00 mg/cm² Vinyl Wall (siding) W 11°° 0.00 mg/cm² W Ceiling W 11°° 0.00 mg/cm² W Ceiling W mg/cm² mg/cm² W Column W 11°° 0.00 mg/cm² M Floor (porch) Gr 11°° 0.00 mg/cm² M Door frame W 11°° 0.00 mg/cm² M Column W 11°° 0.00 mg/cm</th> <td></td> <td>13</td> <td>NCRA 220118</td> <td>O. DeWitt Whitten,</td> <td>INSPECTOR NAME/N</td> <td></td> <td>RIAL NO. INNOVX LBI</td>	WM COMPONENT COLOR ² TEST LOCATION LEVEL XRR FREADING UNITS ² W Half wall (porch) W 11°° 2.54 mg/cm ² MW Window sill W 11°° 0.00 mg/cm ² Vinyl Wall (siding) W 11°° 0.00 mg/cm ² W Ceiling W 11°° 0.00 mg/cm ² W Ceiling W mg/cm ² mg/cm ² W Column W 11°° 0.00 mg/cm ² M Floor (porch) Gr 11°° 0.00 mg/cm ² M Door frame W 11°° 0.00 mg/cm ² M Column W 11°° 0.00 mg/cm		13	NCRA 220118	O. DeWitt Whitten,	INSPECTOR NAME/N		RIAL NO. INNOVX LBI
#11916 INSPECTOR NAME/NO. DeWitt Whitten, NCRA 220118 ISGNATURE COLOR? TEST LOCATION LEVEL XRF READING UNITS³ all (porch) W 12° 2.54 mg/cm² dows sill W 11° 0.000 mg/cm² location w 10° 0.000 mg/cm² l	ATT DEPTOD NAME (MODE) INSPECTOR NAME (MODE) LEVEL SIGNATURE Component STRATE* COMPONENT COLOR? TEST LOCATION LEVEL XRF READING UNITS* M Window sill W 11°° 0.00 mg/cm² W Window sill W mg/cm² mg/cm² W Celling W mg/cm² mg/cm² W Column W mg/cm² mg/cm² W Door W 11°° 0.00 mg/cm² W Floor (porch) W 11°° 0.00 mg/cm² W Floor (porch) W 11°° 0.00 mg/cm² W Column W					nson; Jacksonville, NC	Building M 104; Camp Johr	/ADDRESS/UNIT NO.
Harden	O. DeWitt Whitten, NCRA 220118 SIGNATURE MAJE 25 June EST LOCATION LEVEL XRF READING UNITS³ 1st 0.00 mg/cm² 1st 0.00				G DATA SHEET	XRF LBP TESTIN		



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			XRF LBP TES	XRF LBP TESTING DATA SHEET				
PROJECT N	AME/ADDRESS/UNIT NO.	PROJECT NAME/ADDRESS/UNIT NO. Building M 104; Camp Johnson; Jacksonville, NC	nson; Jacksonville	, NC PROJECT NO.	NO. 2019 – 05)5 – 037	DATE 25	25 June 2019
XRF MODE	XRF MODEL/SERIAL NO. INNOVX LBP 4000	P 4000 #11916	INSPECTOR NAM	INSPECTOR NAME/NO. DeWitt Whitten, NCRA 220118	en, NCRA 220118	SIGNATURE ~	Meller	Mas
SAMPLE #	SUBSTRATE ¹	COMPONENT	COLOR ²	TEST LOCATION	LEVEL	XRF READING	UNITS ³	CLASSIFICATION ⁴
24	U	Stairs	%		1st	0.00	mg/cm ²	z
25	Σ	Door casing	*		1st	0.00	mg/cm ²	z
26	Σ	Door	*		1st	0.00	mg/cm²	Z
27	Σ	Door frame	*		1st	0.00	mg/cm ²	Z
28	Vinyl	Wall (siding)	M		1st	0.00	mg/cm ²	Z
29	Σ	Window casing	*		1st	0.00	mg/cm ²	Z
30	Σ	Window sill	*		1st	0.00	mg/cm ²	z
31	Σ	Door	>		1st	0.00	mg/cm ²	Z
32	Σ	Door frame	*		1st	0.00	mg/cm ²	Z
33	*	Canopy support	*		1st	0.00	mg/cm ²	Z
34	*	Canopy ceiling	>		1st	0.00	mg/cm ²	Z
35	Vinyl	Wall (siding)	>		1st	0.00	mg/cm ²	Z
36	U	Steps	>		1st	0.00	mg/cm ²	Z
37	Σ	Window sill	*		1.54	0.00	mg/cm ²	Z
38	Σ	Window casing	*		1 st	0.00	mg/cm ²	Z
39	Vinyl	Wall (siding)	>		1st	0.00	mg/cm ²	Z
40	Σ	Door	>		1st	0.00	mg/cm ²	z
41	Σ	Door frame	*		1st	0.00	mg/cm ²	z
42	Σ	Door casing	>		1 st	0.00	mg/cm ²	z
43	Σ	Door frame	>		1st	0.00	mg/cm ²	z
1) M	M – metal	2) W-White	R – Red	3) mg/cm2 – n	mg/cm2 – milligrams/square centimeter	entimeter	7	4) N – Negative
≥ ≥	W – wood DW – drywall	b – blue Y – Yellow	G – Gleell T – Tan					
	B – Brick	Bk – Black	Br – Brown					
- S	C – Concrete CMU – Concrete Masonry Unit	Gr – Gray O – Orange		hite				
Α.	P – Plaster	Pr – Purple	C – Clear					
								טענ ט טניי



5		8	XRF LBP TESTING DATA SHEET	DATA SHEET				
PROJECT !	NAME/ADDRESS/UNIT NO	PROJECT NAME/ADDRESS/UNIT NO. Building M 104; Camp Johnson; Jacksonville, NC	nson; Jacksonville, NC	PROJECT NO.	2019 – 05	-037	DATE 25 J	25 June 2019
XRF MODI	XRF MODEL/SERIAL NO. INNOVX LBP 4000	LBP 4000 #11916	INSPECTOR NAME/NO. DeWitt Whitten, NCRA 220118	DeWitt Whitten, NC	RA 220118	SIGNATURE	Uller	Mas
SAMPLE #	SUBSTRATE ¹	COMPONENT	COLOR ² TES	TEST LOCATION	LEVEL	XRF READING	UNITS3	CLASSIFICATION ⁴
44	Σ	Door	×		1 st	0.00	mg/cm ²	Z
45	*	Canopy support	W		1^{st}	0.00	mg/cm ²	z
46	*	Canopy ceiling	W		1st	0.00	mg/cm ²	Z
47	U	Steps	*		1st	0.00	mg/cm ²	z
48	Vinyl	Wall (siding)	%		1^{st}	0.00	mg/cm ²	Z
49	Σ	Window casing	×		1 st	0.00	mg/cm ²	Z
20	Σ	Window sill	×		1^{st}	0.00	mg/cm ²	Z
51	Σ	Window sill	*		1 st	0.00	mg/cm ²	Z
52	Σ	Window casing	*		1st	0.00	mg/cm ²	Z
53	U	Steps	×		1^{st}	0.00	mg/cm²	Z
54	*	Canopy support	%		$\mathbb{1}^{\mathrm{st}}$	0.00	mg/cm²	Z
55	W	Canopy ceiling	×		1^{st}	0.00	mg/cm ²	Z
26	Vinyl	Wall (siding)	*		1^{st}	0.00	mg/cm²	Z
57	Σ	Door frame	W		1st	0.00	mg/cm²	Z
28	Σ	Door	×		1^{st}	0.00	mg/cm ²	Z
59	Σ	Door casing	W		1^{st}	> 1.0	mg/cm ²	Ь
09	W	Window casing	W		1^{st}	0.00	mg/cm ²	Z
61	*	Window sill	W		1st	0.00	mg/cm²	z
62	DW	Wall	W		$1^{\rm st}$	0.00	mg/cm ²	z
63	Σ	Door frame	W		1^{st}	0.00	mg/cm ²	Z
1) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	M – metal W – wood DW – drywall B – Brick C – Concrete CMU – Concrete P – Plaster	2) W- White B – Blue Y – Yellow Bk – Black Gr – Gray o – Orange Pr – Purple	R – Red G – Green T – Tan Br – Brown OW – Off-white P - Pink C – Clear	 mg/cm2 – milligrams/square centimeter 	ns/square cen	imeter	4	4) N – Negative P – Positive
								1 0 0





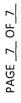
			TOTA GG . TGX	FILL STAGE				
			ARF LBP IESII	NA P			- 11	
PROJECT NA	AME/ADDRESS/UNIT NO.	PROJECT NAME/ADDRESS/UNIT NO. Building M 104; Camp Johnson; Jacksonville, NC	nson; Jacksonville, N	IC PROJECT NO.	2019-05-037	-037	DATE 25 J	25 June 2019
XRF MODEL	XRF MODEL/SERIAL NO. INNOVX LBP 4000	3P 4000 #11916	INSPECTOR NAME/	INSPECTOR NAME/NO. DeWitt Whitten, NCRA 220118	CRA 220118	SIGNATURE ~	Uller	May
SAMPLE #	SUBSTRATE ¹	COMPONENT	COLOR ²	TEST LOCATION	LEVEL	XRF READING	UNITS ³	CLASSIFICATION⁴
64	Σ	Door	*		1st	0.00	mg/cm²	Z
65	Σ	Door frame	*		1st	0.00	mg/cm²	Z
99	DW	Wall	×		1st	0.00	mg/cm²	Z
67	DW	Wall	×		1st	0.00	mg/cm²	Z
89	DW	Wall	×		1st	0.00	mg/cm²	Z
69	DW	Wall	×		1 st	0.00	mg/cm²	Z
70	*	Window sill	×		1st	0.00	mg/cm²	Z
71	DW	Wall	*		1st	0.00	mg/cm²	Z
72	Σ	Door frame	×		1^{st}	0.00	mg/cm²	Z
73	DW	Wall	×		1^{st}	0.00	mg/cm²	Z
74	*	Window casing	M		1^{st}	0.00	mg/cm²	Z
75	MQ	Wall	W		1 st	0.00	mg/cm²	Z
92	Σ	Door frame	W		1 st	0.00	mg/cm ²	z
- 77	Σ	Door	M		1^{st}	0.00	mg/cm ²	Z
78	DW	Wall	W		$\mathbb{1}^{\mathrm{st}}$	0.00	mg/cm ²	z
79	DW	Wall	*		1^{st}	0.00	mg/cm ²	z
80	*	Window sill	*		1 st	0.00	mg/cm ²	z
81	DW	Wall	M		1 st	0.00	mg/cm ²	z
82	Σ	Door frame	M		1^{st}	00.00	mg/cm ²	z
83	DW	Wall	8		1st	0.00	mg/cm ²	z
1) M-	M – metal W – wood	2) W- White B – Blue	R – Red G – Green	3) mg/cm2 – milligrams/square centimeter	ms/square cent	timeter	4	4) N – Negative P – Positive
: Ma	DW – drywall	Y – Yellow	T-Tan					
- R	B – Brick C – Concrete		OW – Off-white	QJ.				
C C	CMU – Concrete Masonry Unit P – Plaster	O – Orange Pr – Purple	P - Pink C – Clear					
								7 30 7 30 7



FF MODEL/SERIAL NO. INNOVX BB MIGHING M 104, Camp Johnsonr, Jacksonnelle, NC PRODECT NAME/ADDRESS/UNIT NO. Building M 104, Camp Johnsonr, Jacksonnelle, NC PRODECT NAME/ADDRESS/UNIT NO. Building M 104, Camp Johnsonr, Jacksonnelle, NC PRODECT NAME/ADDRESS/UNIT NO. XB MIGHING M 11916 MNFECTOR NAME/MO. DeWirt Whiten NCRA 220118 SIGNATURE ANTITUTE ANTITUTE COMPONENT COLOR? TEST LOCATION LEVEL XRR FRADING UNITS MIGHING NUTS MIGHING MIG				XRF LBP TESTING DATA SHEET	IG DATA SHEET				
Name	PROJECT NAME/AD	DRESS/UNIT NO.	Building M 104; Camp Joh	hnson; Jacksonville, NC		2019 – 05	-037		June 2019
84 W TEST LOCATION LEVE XFR READING UNITS ² 84 W Window casing W 1° 0.00 mg/cm² 85 W Chair rail W 1° 0.00 mg/cm² 88 DW Wall W 1° 0.00 mg/cm² 89 DW Wall W 1° 0.00 mg/cm² 89 DW Wall W 0.00 mg/cm² 89 DW Wall W 0.00 mg/cm² 90 M Door rane W 0.00 mg/cm² 91 M Door W 0.00 mg/cm² 92 C Wall W 0.00 mg/cm² 94 DW Wall W 0.00 mg/cm² 95 W C Column W 0 0.00 mg/cm² 96 W C Wall W 0.00	XRF MODEL/SERIAL	. NO. INNOVX LBF	P 4000 #11916	INSPECTOR NAME/N	VO. DeWitt Whitten, I	NCRA 220118	SIGNATURE ~	Uller	Mars
84 WW Window casing W Page 85 WW Chair rail W 11° 0.00 mg/cm² 85 WW Door casing W 11° 0.00 mg/cm² 88 DW Wall W 0.00 mg/cm² 0.00 mg/cm² 89 DW Wall W 0.00 11° 0.00 mg/cm² 90 M Door frame W 0 0.00 mg/cm² 91 C Wall W 0 0.00 mg/cm² 92 M Door frame W 0 0.00 mg/cm² 92 C Wall W 0 0.00 mg/cm² 93 W C Wall W 0 0 0 94 DW M M 0 0 mg/cm² 95 W C Wall W 0 0 94 <th></th> <th>rrate1</th> <th>COMPONENT</th> <th></th> <th>TEST LOCATION</th> <th>LEVEL</th> <th>XRF READING</th> <th>UNITS³</th> <th>CLASSIFICATION⁴</th>		rrate1	COMPONENT		TEST LOCATION	LEVEL	XRF READING	UNITS ³	CLASSIFICATION ⁴
85 W Chair rail W Int 0.00 mg/cm² 86 DW Wall W 11° 0.00 mg/cm² 87 W Door casing W 11° 0.00 mg/cm² 88 DW Wall W 11° 0.00 mg/cm² 89 M Door frame W 11° 0.00 mg/cm² 90 M Door frame W 11° 0.00 mg/cm² 91 C Wall W 11° 0.00 mg/cm² 92 C Wall W 0.00 mg/cm² 93 W Chair rail W 11° 0.00 mg/cm² 94 DW M M 11° 0.00 mg/cm² 95 W C W M 0.00 mg/cm² 96 W C W M 0.00 mg/cm² 100 W		~	Window casing	*		1st	00.0	mg/cm ²	z
86 DbW Wall WW more casing W most condition 87 WW Door casing W 11° 0.00 mg/cm² 88 Dw Wall W 11° 0.00 mg/cm² 89 W Door frame W 11° 0.00 mg/cm² 90 M Door frame W 11° 0.00 mg/cm² 91 C Column W 11° 0.00 mg/cm² 92 C Wall W 0 0 mg/cm² 93 W Chair rail W 0 0 0 mg/cm² 94 W W M 0 0 0 0 0 0 95 W C Chair rail W M 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0<		~	Chair rail	*		1 st	0.00	mg/cm ²	z
87 WW Door casing W Para 0.00 mg/cm² 88 Dw Wall W 0.00 11° 0.00 mg/cm² 89 M Door frame W 0.00 11° 0.00 mg/cm² 90 M Door frame W 11° 0.00 mg/cm² 91 C Column W 11° 0.00 mg/cm² 92 C Column W 11° 0.00 mg/cm² 93 W Chair rail W 11° 0.00 mg/cm² 94 Dw Wall W 11° 0.00 mg/cm² 95 W Chair rail W 0.00 mg/cm² 96 W Wall W 0.00 mg/cm² 96 W C C M 0.00 mg/cm² 96 W Wall W 0.00 0.00 mg/cm²		W	Wall	*		1 st	00.00	mg/cm ²	z
88 DW Wall W mg/cm² 89 MI Door frame W 11° 0.00 mg/cm² 90 MI Door frame W 11° 0.00 mg/cm² 90 MI Door W 0.00 mg/cm² mg/cm² 91 C Wall W 11° 0.00 mg/cm² 92 C Wall W 0.00 mg/cm² mg/cm² 94 DW Wall W 0.00 mg/cm² mg/cm² 95 W Chair rail W 0.00 mg/cm² mg/cm² 96 W C W 0.00 mg/cm² mg/cm² 97 W C W 0.00 mg/cm² mg/cm² 98 C C Wall W 0.00 mg/cm² 100 W W Door 0.00 mg/cm² 100 W W 0.		~	Door casing	*		1 st	00.00	mg/cm²	z
89 MM Door frame W Intermediate MBC mode 90 MM Door W 13* 0.00 mg/cm² 90 MM Door W 13* 0.00 mg/cm² 91 C Columh W 13* 0.00 mg/cm² 92 C Wall W M 0.00 mg/cm² mg/cm² 94 Dw Chair rail W W 0.00 mg/cm² mg/cm² 95 W Chair rail W W 0.00 mg/cm² mg/cm² 95 W Chair rail W W 0.00 mg/cm² mg/cm² 95 W C Wall W 0.00 mg/cm² mg/cm² 96 W C Wall W 0.00 mg/cm² mg/cm² 90 W W W 0.00 0.00 0.00 mg/cm² 100 W <td></td> <td>M</td> <td>Wall</td> <td>*</td> <td></td> <td>1^{st}</td> <td>00.00</td> <td>mg/cm²</td> <td>Z</td>		M	Wall	*		1^{st}	00.00	mg/cm ²	Z
90 MM Door W M mg/cm² 91 C Column W 11° 0.00 mg/cm² 92 C Wall W 11° 0.00 mg/cm² 93 W Chair rall W 11° 0.00 mg/cm² 94 W Chair rall W mg/cm² mg/cm² mg/cm² 95 W Chair rall W mg/cm² mg/cm² mg/cm² 95 W C Wall W mg/cm² mg/cm² 98 C Wall W mg/cm² mg/cm² 99 W W mg/cm² mg/cm² 100 W M mg/cm²		5	Door frame	X		1^{st}	00.00	mg/cm²	z
91 CC Column W P <th< td=""><td></td><td>5</td><td>Door</td><td>×</td><td></td><td>1st</td><td>00.00</td><td>mg/cm²</td><td>z</td></th<>		5	Door	×		1st	00.00	mg/cm ²	z
92 CC wall Woll Punch Punch Woll Punch P		U	Column	*		1 st	1.07	mg/cm ²	Ь
93 WW Chair rail WM Face Perm Perm <t< td=""><td></td><td>U</td><td>Wall</td><td>8</td><td></td><td>1st</td><td>0.89</td><td>mg/cm²</td><td>z</td></t<>		U	Wall	8		1st	0.89	mg/cm ²	z
94 DWW Wall WW April WW April MW		3	Chair rail	*		1st	00.00	mg/cm ²	Z
95 WW Chair rail WW Hat 0.00 mg/cm² 96 WW Stage front WW 1st 0.00 mg/cm² 97 C Wall WW 1st 0.05 mg/cm² 98 C Column WW WW 0.04 0.04 0.05 0.05 0.00 100 DW Wall WW WW 0.00 0.00 0.00 0.00 101 C Wall WW WW 0.00 0.00 0.00 0.00 103 MM NW NW NW 0.00 0.00 0.00 0.00 103 MM NW NW NW 0.00 0.00 0.00 0.00 103 MM NW NW NW 0.00 0.00 0.00 0.00 NM MM NW NW NW 0.00 0.00 0.00 0.00 0.00 0.00 <td< td=""><td></td><td>M</td><td>Wall</td><td>*</td><td></td><td>1st</td><td>00.00</td><td>mg/cm²</td><td>Z</td></td<>		M	Wall	*		1 st	00.00	mg/cm²	Z
96 WW Stage front WW Print 0.00 mg/cm² 97 C Wall W 1st 0.045 mg/cm² 98 C Column W 1st 0.045 mg/cm² 99 W Chair rail W 1st 0.00 mg/cm² 100 Dw Wall W 1st 0.00 mg/cm² 101 C Wall W 1st 0.00 mg/cm² 102 M Door frame W W 1st 0.00 mg/cm² 103 M N N 1st 0.00 mg/cm² 103 M N N 1st 0.00 mg/cm² 103 M N N N 1st 0.00 mg/cm² 103 M N N N N N 0.00 mg/cm² 103 M N N N N </td <td></td> <td>3</td> <td>Chair rail</td> <td>*</td> <td></td> <td>1^{st}</td> <td>0.00</td> <td>mg/cm²</td> <td>z</td>		3	Chair rail	*		1^{st}	0.00	mg/cm²	z
97 C Wall W W 1st 0.45 mg/cm² 99 W Column W 1st 0.54 mg/cm² 100 W Wall W 1st 0.00 mg/cm² 101 Dw Wall W 1st 0.00 mg/cm² 102 M Door frame W N 1st 0.00 mg/cm² 103 M Door frame W R R 0.00 mg/cm² 103 M N R R R 0.00 mg/cm² 103 M N N N 0.00 mg/cm² mg/cm² 103 M N N N 0.00 mg/cm² mg/cm² 103 M N N N N 0.00 mg/cm² 103 M N N N N N N N N N N		3	Stage front	×		1^{st}	00.00	mg/cm²	Z
98 C Column W Ist 0.54 mg/cm² 100 bw Val N 1st 0.00 mg/cm² 100 bw Wall W 1st 0.00 mg/cm² 101 C Wall W 1st 0.00 mg/cm² 102 M Door frame W 1st 0.00 mg/cm² 103 M Door frame W R - Red 3) mg/cm² - milligrams/square cartimeter mg/cm² N - wood N - wood N - Y vellow T - Tan T - Tan 0.00 mg/cm² N - wood N - wood N - Y vellow T - Tan N - Wood		U	Wall	*		1 st	0.45	mg/cm²	z
99 WW Chair rail W Lst 0.00 mg/cm² 100 DW Wall W 1st 0.00 mg/cm² 101 C Wall W 1st 1.09 mg/cm² 102 M Door W 1st 0.00 mg/cm² 103 M Door frame W 1st 0.00 mg/cm² 103 M B- Blue G- Green 3) mg/cm2 - milligrams/square centimeter mg/cm² N - wood Y - Yellow T - Tan Y - Yellow T - Tan B - Brick B - Blue Gr- Green B - Brick B - Brick C - Concrete Gr- Gray OW - Off-white P - Pink		U	Column	W		1^{st}	0.54	mg/cm ²	Z
100 Dw Wall W 1st 0.00 mg/cm² 101 C Wall W 1st 1.09 mg/cm² 102 M Door frame W 1st 0.00 mg/cm² 103 M W M 0.00 mg/cm² mg/cm² 103 M N N 0.00 mg/cm² mg/cm² 103 M N N 0.00 mg/cm² mg/cm² N W N N N 0.00 mg/cm² N W N N N N N N N W N N N N N N N N N W N <td< td=""><td></td><td>3</td><td>Chair rail</td><td>W</td><td></td><td>1st</td><td>0.00</td><td>mg/cm²</td><td>z</td></td<>		3	Chair rail	W		1 st	0.00	mg/cm ²	z
101 C Wall W L15 L1.09 mg/cm² 102 M Door frame W 15t 0.00 mg/cm² 103 M Door frame W M M M Mg/cm² 103 M Door frame W Mg/cm² Mg/cm² Mg/cm² Mg/cm² M - metal N - wood N - Wood B - Blue G - Green G - Green Mg/cm² Mg/cm² Mg/cm² DW - drywall Y - Yellow T - Tan T - Tan Mg/cm² Mg/cm² Mg/cm² Mg/cm² Mg/cm² B - Brick B - Brick Bresnown Bresnown Bresnown Mg - Brick Bresnown Mg - Brick		M	Wall	M		1 st	0.00	mg/cm ²	z
102 M Door frame W Ist 0.00 mg/cm² 103 M Door frame W M 0.00 mg/cm² M - metal 2) W-White R-Red 3) mg/cm² - milligrams/square centimeter mg/cm² W - wood Y - Yellow T - Tan T - Tan Y - Yellow T - Tan B - Brick 8k - Black Br - Brown Br - Brown Br - Brown C - Concrete Gr - Gray OW - Off-white P - Pink		U	Wall	W		$1^{\rm st}$	1.09	mg/cm ²	Ь
103 M Door frame W No.00 mg/cm² M - metal 2) W-White R - Red 3) mg/cm² - milligrams/square centimeter W - wood 9 - Blue G - Green G - Green T - Tan DW - drywall 8 - Blue Br - Brown Br - Brown C - Concrete Gr - Gray OW - Off-white C - Concrete Masonry Unit O - Orange P - Pink		Σ	Door	W		1^{st}	0.00	mg/cm ²	z
M - metal2)W- WhiteR - Red3)mg/cm2 - milligrams/square centimeterW - woodB - BlueG - GreenDW - drywallY - YellowT - TanB - BrickB - BrownC - ConcreteGr - GrayOW - Off-whiteCMU - Concrete Masonry UnitO - OrangeP - Pink		Σ	Door frame	*		1st	0.00	mg/cm²	Z
B – Blue G – Green Y – Yellow T – Tan Bk – Black Br – Brown Gr – Gray OW – Off-white O – Orange P - Pink				R – Red		ams/square cen	timeter	7	t) N – Negative
BK – Black Gr – Gray O – Orange	poom – M	=	B – Blue V – Vellow	G – Green T – Tan					r – rositive
Gr – Gray O – Orange	Dw – urywa B – Brick	≣	8k – Black	Br – Brown					
O – Orange	C Concreté	a.	Gr – Gray						
	CMU - Conc	rete Masonry Unit	O – Orange						



	25 June 2019	Mas	CLASSIFICATION ⁴	Z	z	Z	Z	Z	Z	Z	z	Z	Z	z	Z	Z	Z	Z	z	۵	۵	z	Z	4) N – Negative P – Positive
	DATE 25 J	Julie	UNITS ³	mg/cm ²	mg/cm²	mg/cm ²	mg/cm²	mg/cm ²	mg/cm ²	4														
	. – 037	SIGNATURE	XRF READING	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93	2.23	0.00	0.00	timeter
	2019 - 05	RA 220118	LEVEL	1st	1st	1^{st}	1st	1st	1^{st}	1^{st}	1^{st}	1^{st}	1^{st}	1^{st}	1^{st}	1st	1 st	1st	1st	1^{st}	1^{st}	1 st	1st	ns/square cen
DATA SHEET	PROJECT NO.	INSPECTOR NAME/NO. DeWitt Whitten, NCRA 220118	TEST LOCATION																					3) mg/cm2 – milligrams/square centimeter
XRF LBP TESTING DATA SHEET	son; Jacksonville, NC	INSPECTOR NAME/NO	COLOR ² TI	W	W	W	W	W	W	M	G/Gr	G/Gr	W	G/Gr	W	G/Gr	X	*	X	W	X	*	8	R – Red G – Green T – Tan Br – Brown OW – Off-white P - Pink C – Clear
	PROJECT NAME/ADDRESS/UNIT NO. Building M 104; Camp Johnson; Jacksonville, NC	#11916	COMPONENT	Window casing	Door frame	Door	Wall	Wall	Wall	Wall	Wall	Window sill	Wall	Window casing	Wall	Door frame	Wall	Newell post	Chair rail	Stair frame	Newell post	Wall	Window casing	2) W-White B-Blue Y-Yellow Bk-Black Gr-Gray O-Orange
	ME/ADDRESS/UNIT NO	XRF MODEL/SERIAL NO. INNOVX LBP 4000	SUBSTRATE ¹	W	Σ	Σ	DW	DW	DW	DW	DW	%	DW	%	DW	Σ	DW	*	*	W	*	DW	M	M – metal W – wood DW – drywall B – Brick C – Concrete CMU – Concrete Masonry Unit
	PROJECT NA	XRF MODEL	SAMPLE #	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	1



			XRF LBP TESTING DATA SHEET	3 DATA SHEET				
PROJECT N	AME/ADDRESS/UNIT NO	PROJECT NAME/ADDRESS/UNIT NO. Building M 104; Camp Johnson; Jacksonville, NC	nson; Jacksonville, NC	PROJECT NO.	2019 - 05 - 037	-037	DATE 25 J	25 June 2019
XRF MODE	XRF MODEL/SERIAL NO. INNOVX LBP 4000	.BP 4000 #11916	INSPECTOR NAME/NO	INSPECTOR NAME/NO. DeWitt Whitten, NCRA 220118	CRA 220118	SIGNATURE ~	What	Mas
SAMPLE #	SUBSTRATE ¹	COMPONENT	COLOR ² T	TEST LOCATION	LEVEL	XRF READING	UNITS ³	CLASSIFICATION ⁴
124	W	Window sill	W		2 nd	0.01	mg/cm²	z
125	DW	Wall	W		2 nd	0.00	mg/cm ²	Z
126	MQ	Wall	W		2 nd	0.00	mg/cm ²	Z
127	DW	Wall	%		2 nd	0.00	mg/cm ²	Z
128	Σ	Door frame	W		2 nd	0.00	mg/cm ²	Z
129	Σ	Door	×		2 nd	0.00	mg/cm ²	Z
130	DW	Wall	×		2 nd	0.00	mg/cm ²	z
131	Σ	Door	W		2 nd	0.00	mg/cm ²	z
132	M	Door frame	%		2 nd	0.00	mg/cm ²	Z
133	MQ	Wall	M		2 nd	0.00	mg/cm ²	Z
134	MQ	Wall	W		2 nd	0.00	mg/cm ²	z
135	MQ	Wall	W		2 nd	0.00	mg/cm ²	Z
136	W	Window casing	M		2 nd	0.00	mg/cm ²	Z
137	W	Window sill	W		2 nd	0.00	mg/cm ²	z
138	MQ	Wall	W		2 nd	0.00	mg/cm ²	z
1) E & W & W & M & M & M & M & M & M & M & M	M - metal W - wood DW - drywall B - Brick C - Concrete CMU - Concrete P - Plaster	2) W- White B – Blue Y – Yellow Bk – Black Gr – Gray it O – Orange Pr – Purple	R – Red G – Green T – Tan Br – Brown OW – Off-white P - Pink C – Clear	3) mg/cm2 – milligrams/square centimeter	ms/square cen	timeter	4	4) N – Negative P – Positive
								11