

APTIM 9143 Philips Highway Suite 400 Jacksonville, FL 32256 Tel: +1 904 367 6000 Fax:+1 904 367 6001 www.Aptim.com

September 24, 2018

Project No. 631237084

Mr. James G. Bernier, P.E.

Territorial Director of Capital Projects & Facilities Division of Architectural Engineering Virgin Islands Department of Education (VIDE)

Re: Report of Project Monitoring – Alexander Henderson Elementary School

73 Estate Concordia St. Croix, US.V.I 00820

Dear Mr. Bernier:

Aptim Environmental & Infrastructure, Inc. (APTIM) has completed visual observations and air monitoring associated with the abatement of asbestos-containing 2' x 4' ceiling panels, floor tile and associated flooring mastic within the Alexander Henderson Elementary School, located at 73 Estate Concordia, St. Croix, USVI. The abatement was performed prior to scheduled renovations which would disturb these materials. This report presents our visual observations and the results of our air monitoring analyses.

APTIM appreciates the opportunity to serve as your asbestos consultant on this project. Please feel free to call us with any questions regarding the content of this report.

Sincerely,

David Mosher

Environmental Project Manager

## 1 ASBESTOS ABATEMENT BACKGROUND

As part of the planned renovations of the Alexander Henderson Elementary School campus, the Virgin Islands Department of Education (VIDE) requested that APTIM provide abatement oversite, onsite observations and air monitoring during the removal of identified asbestos-containing materials. Adcon Environmental Services, a licensed USVI abatement contractor, performed the abatement. Daily observation of work practices was performed by an APTIM representative to ensure adherence by the abatement contractor to the Asbestos Work Plan developed by APTIM and all applicable Federal EPA and OSHA regulations, to the most practicable extent.

After the abatement work was completed by the abatement contractor, a visual inspection of the work area was performed by the APTIM representative. The visual inspection was performed to determine the readiness of the work area for clearance sampling. Critical barriers remained in place in the work area until satisfactory visual or sampling clearance results were confirmed by APTIM. Phase Contrast Microscopy (PCM) was used to analyze clearance air samples in floor tile/floor tile mastic work areas exceeding 160 square feet. Visual clearances only were performed for the remaining floor tile/ floor tile mastic areas. Transmission Electron Microscopy (TEM) was used to analyze clearance air samples in the 2'x4' ceiling panels located in the west wing.

On August 20 through August 26, 2018, the following materials were removed from the facility:

Location	Material Description	Approximate Amount
Limited areas throughout the school	FLOOR TILE AND MASTIC	6,497 SF
West Wing of the school	2' X 4' CEILING PANELS	10,325 SF

SF = square feet

LF = linear feet

EA = each

## 2 SUMMARY OF ABATEMENT OBSERVATIONS

The abatement contractor's preparation of each work area was accomplished by placing critical barriers; setting up a decontamination station, and where applicable, establishing diminished air pressure within the work area using high efficiency particulate air (HEPA) filtered ventilating machines. Removal of the asbestos-containing materials was performed with the contractor's workers wearing full face, positive pressure air purifying respirators with P100 cartridges, and using HEPA vacuums and wet cleaning methods. Asbestos containing materials were placed in appropriately labeled 6-mil polyethylene bags for disposal. Bagged materials were double bagged for transport to the disposal site.

Following removal of the asbestos-containing materials, an inspection of the abatement area(s) was conducted by an APTIM representative for visual clearance to allow the contractor to proceed with encapsulation or lockdown. Manual cleaning was repeated, as necessary, until no visible dust or debris was present in the work area. Five final clearance samples were collected within each work area exceeding 160 SF. The sampling and subsequent analysis of the floor tile/floor tile mastic clearance samples were performed by a APTIM representative trained in accordance with NIOSH 582, "Sampling and Evaluation of Airborne Asbestos Dust in general accordance with NIOSH Method 7400 for Phase Contrast Microscopy (PCM). PCM results were reported in fibers per cubic centimeter (f/cm³), and were compared to the AHERA clearance criteria of less than 0.01 f/cm3, for each sample. TEM results for the ceiling panel abatement were analyzed by IATL, a NVLP accredited laboratory, and were reported in structures per square millimeter (str/mm2), and were compared to the AHERA clearance criteria of less than 70 str/mm2.

Table 1 and Table 2 contain summaries of the air samples and clearance samples collected during the project, including sample numbers, the types of samples, and the result for each sample. All clearance air samples collected and analyzed following the abatement were below 0.01 f/cm3 for PCM and 70 str/mm2 for TEM.

The figure, located at the end of the report text, indicates the air sample locations.

## **QUALIFICATIONS OF THE REPORT**

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

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

Table 1 **Summary of Air Monitoring by PCM** Alexander Henderson Elementary School, USVI

				SAMPLE	FIBER CONCEN-
SAMPLING DATE	SAMPLE ID	SAMPLE LOCATION	SAMPLE TYPE	VOLUME (liters)	TRATION (f/cm <sup>3</sup> )
8/25/18	H-1	AUDITORIUM/CAFETERIA	CL	1300	<0.01
8/25/18	H-2	AUDITORIUM/CAFETERIA	CL	1300	< 0.01
8/25/18	H-3	AUDITORIUM/CAFETERIA	CL	1300	< 0.01
8/25/18	H-4	AUDITORIUM/CAFETERIA	CL	1300	< 0.01
8/25/18	H-5	AUDITORIUM/CAFETERIA	CL	1300	< 0.01
8/26/18	H-6	EAST WING -RM 216	CL	1300	< 0.01
8/26/18	H-7	EAST WING – RM 216	CL	1300	< 0.01
8/26/18	H-8	EAST WING – RM 216	CL	1300	< 0.01
8/26/18	H-9	EAST WING – RM 216	CL	1300	< 0.01
8/26/18	H-10	EAST WING – RM 216	CL	1300	< 0.01
8/26/18	H-11	WEST WING – RM 102	CL	1300	< 0.01
8/26/18	H-12	WEST WING – RM 102	CL	1300	< 0.01
8/26/18	H-13	WEST WING – RM 102	CL	1300	< 0.01
8/26/18	H-14	WEST WING – RM 102	CL	1300	< 0.01
8/26/18	H-15	WEST WING – RM 102	CL	1300	< 0.01
8/26/18	H-16	WEST WING – RM 104	CL	1300	< 0.01
8/26/18	H-17	WEST WING – RM 104	CL	1300	< 0.01
8/26/18	H-18	WEST WING – RM 104	CL	1300	< 0.01
8/26/18	H-19	WEST WING – RM 104	CL	1300	< 0.01
8/26/18	H-20	WEST WING – RM 104	CL	1300	< 0.01
8/26/18	H-BL	FIELD BLANK	BL		0 f/bl

NOTE: clearance testing. duplicate sample. outside work area. PCM DUP f/bl =

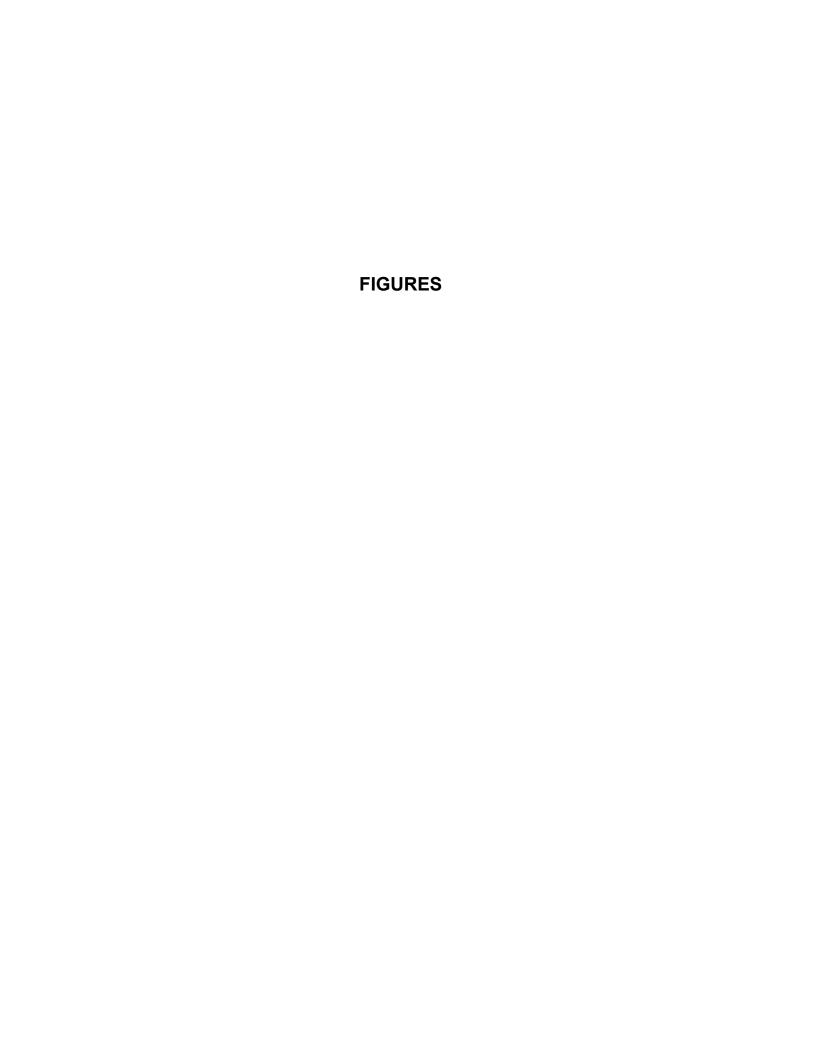
phase contrast microscopy. fibers per blank. fibers per cubic centimeter. field blank f/cm<sup>3</sup> OWA =  $\operatorname{BL}$ IWA inside work area.

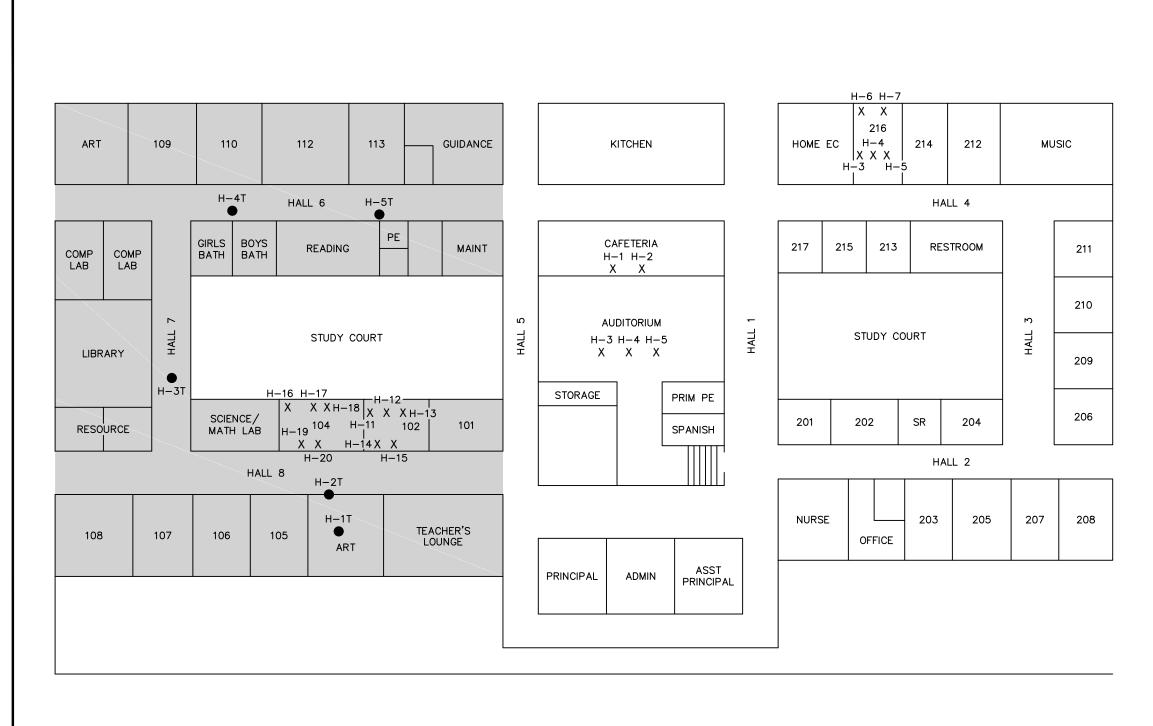
Table 2 Summary of Air Monitoring by TEM Alexander Henderson Elementary School, USVI

ANALYSIS DATE	SAMPLE ID	SAMPLE LOCATION	SAMPLE TYPE	SAMPLE VOLUME (liters)	ASBESTOS CONCEN- TRATION (str/mm2)
8/26/18	H-1T	WEST WING – RM 103	CL	1300	15.4
8/26/18	H-2T	WEST WING – HALLWAY 8	CL	1300	30.8
8/26/18	H-3T	WEST WING – HALLWAY 7	CL	1313	<15.4
8/26/18	H-4T	WEST WING – HALLWAY 6	CL	1287	<15.4
8/26/18	H-5T	WEST WING –RM 204	CL	1387	<15.4

NOTE: CL

TEM = transmission electron microscopy. str/mm2 = fibers per cubic centimeter. BL = field blank clearance testing. duplicate sample. outside work area. DUP = OWA = IWA = inside work area.





APTIM ENVIRONMENTAL & INFRASTRUCTURE, INC. 9143 PHILIPS HIGHWAY, SUITE 400 JACKSONVILLE, FLORIDA 32256 (904) 367-6000 OFFICE (904) 367-6001 FAX

OFFICE: JACKSONVILLE

DATE: 9-24-18 ACAD FILE: 7084B24

ASBESTOS CEILING PANEL, FLOOR TILE AND MASTIC ABATEMENT AUGUST 20 - 26, 2018

CLIENT:

ST. CROIX SCHOOL DISTRICT
ST. CROIX, U.S. VIRGIN ISLANDS

DM

LOCATION:

ALEXANDER HENDERSON ELEMENTARY SCHOOL 73 ESTATE CONCORDIA ST. CROIX, U.S. VIRGIN ISLANDS 00820

DESIGNED:	DRAWN:	PROJECT NO.:	FIGURE:
DM	SDJF	631237084	1

LEGEND:

PCM SAMPLE LOCATION

TEM SAMPLE LOCATION

ASBESTOS-CONTAINING 2' x 4' CEILING PANELS

## AIR MONITORING LOGS AND TEM LAB RESULTS

780252187	81/52/8	D: Mosher		
APTIM Proj/Task No.:	Date Sampled:	Technician Name:		
St Croix Schools	Henderson Elementon		and, torium/cafeterla	
Client Name:	Site Name:	Bldg Name:	Floor:	

,	AIR SA	MPLE	AIR SAMPLES COLLECTED FOR ANALYSIS FOR AIRBORNE FIBERS BY PCM ANALYSIS	R ANA	\LYSIS	FOR A	IRBOF	NE FI	BERS	BY PC	M ANALY	SIS
				SAN	SAMPLING PERIOD	ОО	FL	FLOW RATE L/M	/M		SAMP	SAMPLE RESULTS
Sample Number	Pump ID Number	Sample Type	Sample Description and Location	Start	Stop	Total Min.	Start	Stop	Avg.	Total Volume	Fiber per Field	NIOSH 7400 f/cm³/Limit of Detection
HE-1	1944	7	auditorium/ cute terib	8:15	9:55	100	(3	13	(3	1300	2.5/00	0.0009
HE-2	1943	$\frac{1}{2}$		8:15	9:5.6	100	į			1300	3.5/00	0.0013
HE-3	7241	2		8:16	9:56	001				1300	5/100	6.0019
ME-4	1723	S		8:16	9.56	001				1300	2.5/100	0,0009
アロース	1729	$\mathcal{E}_{\mathcal{O}}$	<b>→</b>	8:16	£5:6	101	<b>→</b>	<u>_</u>	<b>→</b>	1313	2/100	0,0008
HEADING KEY					CALIBRATION:	NOI:						
L/m = Lite PCM = Pha	Liters Per Minute Phase Contrast Microscopy	Microscopy	f/cm³ = Fibers per Cubic Centimeter TLTC = To Loaded To Count	timeter	Rotometer Critical Orifice Bubble Meter	er rifice						(
SAMPLE TYPE KEY AA = Ambient BB = Backgrou BL = Blank CL = Clearanc DU = Decontar	PE KEY Ambient Air Background/Baseline Blank Clearance Decontamination Unit	eline Unit	EB = Exterior of Building  WA = Inside Work Area  NAE = Negative Air Exhaust  OWA = Outside Work Area/Barrier  RC = Recount  RS = Reference Slide	arrier	Microsco	Microscope Number					Signature	

APTIM		Count for 5 for E feelds Count for E	, .							7.	-7	\ \ \			Fibers / Fields
631237084 8/25/18 5. Mosho	_	Sample No. Her 4	, 1	77		2 4									Fibers / Fields
APTIM Proj/Task No.: (33 l Date Sampled: Technician Name:	PCM COUNT SHEET	s Sample No.4/£ - 3 Count for 5			, ,			3							Fibers / Fields
Hendenson Elen auditorium/cafeteria		for 5 Sample NoHE-2 count for 5 fields								14					Fibers / Fields
Site Location/Rooms: and forward		Sample No.					**************************************		## = = = = = = = = = = = = = = = = = =			1	71		Fibers / Fields

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APTIM	SIS	SAMPLE RESULTS	NIOSH 7400 f/cm³/Limit of Detection	0.0009	0,000,0	0,0011	0.0009	6.0019					
	BY PCM ANALYSIS	SAM	Fiber per Field	25/00	115/100	3/100	2.5/100	\$ (00					Signature
72 X 78	3Y PCI		Total Volume	1300	1300	(300	1300	(300					
	SERS I	Σ	Avg.	2				9					
084	NE FIE	FLOW RATE L/M	Stop	(w	7			<b>→</b>					
631257084 8/26/18 D. Moster	IRBOR	月(	Start	2	*******			~					
-ar 220 W	FOR A	go	Total Min.	66	00/	100	0	GO/			ATION: ter Orifice	Meter	Microscope Number
oj/Task N ipled: in Name:	LYSIS	SAMPLING PERIOD	Stop	1:00	1.50	1.50	1.50	1150			CALIBRATION: Rotometer Critical Orifice	Bubble Meter	Microso
APTIM Proj/Task No.: Date Sampled: Technician Name:	R ANALYSIS FOR AIRBORNE FIBERS	SAM	Start	01:21	01 121	(2,10	(2,10	(2:60			ntimeter t		st Barrier
Schools	AIR SAMPLES COLLECTED FO		Sample Description and Location	2/6				7			Fibers per Cubic Centimeter		Exterior of Building Inside Work Area Negative Air Exhaust Outside Work Area/Barrier Recount
M	         		Samp	RW			3				f/cm <sup>3</sup> = Ti TC =		R NAE
Honderson Rm 7-1	MPLES		Sample Type	7	7			3			e Mistoriogogy	School of the sc	seline on Unit
VI I T	AIR SA		Pump ID Number	172.3	1770	1200	177.7	1943			(EY Liters Per Minute	lase Collidas	Ambient Air Ambient Air Blackground/Baseline Blank Clearance Clearance Decontamination Unit
Client Name: Site Name: Bidg Name: Floor:			Sample Number	HF. C	1,	ı I	1 1				HEADING KEY	11	SAMPLE TYPE KEY AA = Ambient BB = Backgrou BL = Blank CL = Clearanc DU = Clearanc

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APTIM		Sample No. $HE - IQ$ count for 5														Fibers / Fields
31237084	F	Sample NoME-9 for Sount for S	/-)													Fibers / Fields
APTIM Proj/Task No.: 6312 Date Sampled: Technician Name:	PCM COUNT SHEET	Sample No. HE-8 for 5	, , ,			. 2				-	1		1-1			Fibers / Fields
Honderson Eleva		Sample No./(E-7 Count for 5				1 1		, ,					3/2			Fibers / Fields
Client Name:  Site Name: Bldg Name/No.: Site Location/Rooms:		Sample No. HE- 6 Count for 5					-		, ,					7,1		Fibers / Fields

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	MITOV 🔷	MILLE WILLIAM		
(31237 084	2/25/18	2 Most of		
APTIM Proj/Task No.:	Date Sampled:	Technician Name:		
St Crook SchoolS		Fondaron Elan	2012	
Slient Name:	Site Name:	3ldg Name:	Floor:	

# AIR SAMPLES COLLECTED FOR ANALYSIS FOR AIRBORNE FIBERS BY PCM ANALYSIS

				SAN	SAMPLING PERIOD	ОО	FL(	FLOW RATE L/M	×		SAMPL	SAMPLE RESULTS
Sample Number	Pump ID Number	Sample Type	Sample Description and Location	Start	Stop	Total Min.	Start	Stop	Avg	Total Volume	Fiber per Field	NIOSH 7400 f/cm³/Limit of Detection
DE:1]	6261	7	2012	5:20	7.00	00	8	5	8	(300)	4/100	0.0015
146-12	(723	70		2,50	7:00	(00)		dans		(300	6/100	0.0023
HE-13	hh 61	20		02:5	7:00	100				(300	4.5/100	D.00 17
サビーコサ	(443	つつ		5.20	7:00	100				1300	4/100	0.0015
HE-5	7221	70	_>	2:50	7,00	00/		4	>	1300	2/100	800000
HEADING KEY  L/m = Lite  PCM = Ph	(EY Liters Per Minute Phase Contrast Microscopy	e Microscopy	f/cm³ = Fibers per Cubic Centimeter TLTC = To Loaded To Count	ıtimeter	CALIBRATION: Rotometer Critical Orifice Bubble Meter	TION: sr rifice						
SAMPLE TYPE KEY  AA = Ambient  BB = Backgrot  BL = Blank  CL = Clearanc  DU = Decontar  DUP = Duplicate	rPE KEY Ambient Air Background/Baseline Blank Clearance Decontamination Unit	seline n Unit le	EB = Exterior of Building IWA = Inside Work Area NAE = Negative Air Exhaust OWA = Outside Work Area/Barrier RC = Recount RS = Reference Slide	t 3arrier	Microsco	Microscope Number					Signature	

		Count for 5							
APTIM		Sample No. 46-15			-11)		H		Fibers / Fields
(31237084 8/76/18 DMOSLOC		Sample No.4E -14 Count for 5							Fibers / Fields
APTIM Proj/Task No.: (3123) Date Sampled: Technician Name:	PCM COUNT SHEET	Sample No. 小で、3 fors		-W				-1^	Fibers, Fields
Henderson Elem R 107		Sample No. 146:12 count in facts	7		-W		-7~		Fibers / Fields
Client Name: Site Name: Bldg Name/No.: Site Location/Rooms:		Sample No.       Court for 5						44	Fibers / Fields

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	1	PICT PICT PICT PICT PICT PICT PICT PICT		
631257084	8/26/10	Mask		
APTIM Proj/Task No.:	Date Sampled:	Technician Name:		
St Griox Schools		Hendarson Elong	7 104	
Client Name:	Site Name:	Bldg Name:	Floor:	



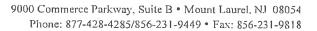
# AIR SAMPLES COLLECTED FOR ANALYSIS FOR AIRBORNE FIBERS BY PCM ANALYSIS

				-	-	- T		-		T		V.				
SAMPLE RESULTS	NIOSH 7400 f/cm³/Limit of Detection	0.0023	0.0026	0.0025	0.0021	0,0028										
SAMPL	Fiber per Field	6/100	2/100	6.5/00	5.5/00	2,5/100	00/00				Signature					
	Total	1300	1300	(3 <sub>0c</sub>	1300	1300										
W	Avg.	5	_			<b>♣</b>										
FLOW RATE L/M	Stop	~				>										
FLC	Start	<u></u>				->										
ОО	Total Min.	Go	601	100	100	100				TION:	er Drifice — Aeter —	Microscope Number				
SAMPLING PERIOD	Stop	8,50	8:50	8:50	8:50	6,50				CALIBRATION:	Rotometer Critical Orifice Bubble Meter	Microsoc				
SAMI	Start	9:10	7:10	0	7:10	7:0					itimeter	sarrier sarrier				
	Sample Description and Location	101-2				->					B = Fibers per Cubic Centimeter C = To Loaded To Count	= Exterior of Building = Inside Work Area = Negative Air Exhaust A = Outside Work Area/Barrier = Recount = Reference Slide				
	Sample Type		) ~		70	77	BL			_	f/cm³	EB IWA NAE OWA t				
		, 224					(H)			_	Liters Per Minute Phase Contrast Microscopy	rPE KEY Ambient Air Background/Baseline Blank Clearance Decontamination Unit Duplicate Sample				
	Pump ID Number	-	-	-		-				3 KEY		F				
	Sample	91311	16 17	) N		02 311	HE RI			HEADING KEY	L/m = PCM =	SAMPLE AA = BB = BL = CL = DU = DUP = DUP = CL = DUP = CUP = CL = CDUP =				

APTIM		Count for 5 fields  Fields  V  Count feelds  Fields	Fibers / Fields
631237084 8/26/19 D. Mah		Sample No. L/E 19	Fibers Fields
APTIM Proj/Task No.: 63 i	PCM COUNT SHEET	Sample No.14 E 18	Fibers / Fields
Hardenson Elan		Sample No. 4E Count first	Fibers / Fields
Client Name: Site Name: Bldg Name/No.: Site Location/Rooms:		Sample No. 4 & 16 Count for 5 felds	Fibers / Fields

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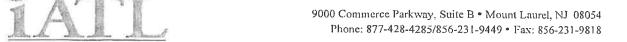
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## Chain of Custody -Airborne Asbestos –

Contact Information	
Client Company: Ap+1M Project Number: 631237084  Office Address: 9143 Philips Hwy 400 Project Name: 5t Croix Schools  City, State, Zip: Jack sowille Ft 32256 Primary Contact: Dane Mosher  Fax Number: Office Phone:  Email Address: david mosher@aptim.com Cell Phone: 904-509-6303	
Matrix/Method:	
PCM: NIOSH 7400	
PCM: OSHA ID-160	
TEM: NIOSH 7402	
TEM: AHERA 40 CFR 763	
☐ TEM: ISO 10312	
TEM: ISO 13794	
Other	
Special Instructions: Note the numbering. Only analyse H-1, 2, 3, 4,5. Hold H-6,7,8,9,10)	
	_
Turnaround Time Preliminary Results Requested Date: 8/25/18 ASAP  Verbal Fax	
Specific date / time  10 Day 5 Day 3 Day 2 Day 1 Day* 12 Hour** 6 Hour**  RUSH**	
LITO Day LIS Day LIS Day LI Day* LI 12 Hour** LI 6 Hour** LI RUSH**	
* End of next business day unless otherwise specified. ** Matrix Dependent. ***Please notify the lab before shipping***	
Chain of Custody	$\neg$
Relinquished (Name/Organization): D. Mosher Date: 8/24/18 Time: 2 8/24/18	Ξ,
Received (Name / iATL): Date: Time:	5 1
Sample Login (Name / iATL):  Date: Time:	
Analysis(Name(s) / iATL):  QA/QC Review (Name / iATL):  Date: 8/35/13 Time: AUG 2 5 2010  Date: Time:	
Archived / Released: QA/QC InterLAB Use: Date: Time:	)
The state of the s	$\leq$



## Sample Log

-Airborne Asbestos -

Client: APTIM		Project: St croix Schools
Sampling Date/Time:	8/24/18	631237084,60031101

	Client Sample #	iATL#	Location/ Description	Flow Rate	Start End	Sampling time (min)	Area (ft2) Volume (L)	Results
	H-19 6	U891066	decon	13	9:190	<sub>si</sub> 101		
	H-117	6591067	decon	13	9:100	101		
	4-128	U091068	auditonim	13	9:17	3 100		
	4=119	UC91069	andyotism	13	9:13	5 100		
	H- # 10	0691070	auditorium	13	9:13/	3 160		
		27.4			/ 10.			
	H-M1	0091061	Em 103	13	2130-	190		
	H-2	6891082	Hall 3	13	2.30. A:10	100		
	H-3	JJ91063	H0217	13	21.30 M	ial		
	H-4	0091004	Hall (,	13	2:37	99		
	H-15	0091005	Holl 6	13	2337	99		
			-					
-								

<sup>\* =</sup> Insufficient Sample Provided to Perform QC Reanalysis (<200mg)

cutsisle - Don't analyze

<sup>\*\* =</sup> Insufficient Sample Provided to Analyze (<50mg) \*\*\* = Matrix / Substrate Interference Possible
FB = Method Requires the submittal of blank(s). ML = Multi Layered Sample, May result in inconsistent results.

These preliminary results are issued by iATL to expedite procedures by clients based upon the above data, iATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificate of Analysis will follow these preliminary results. The signed COA is to be considered the official results. All EPA, HUD, and NJDEP conditions apply.

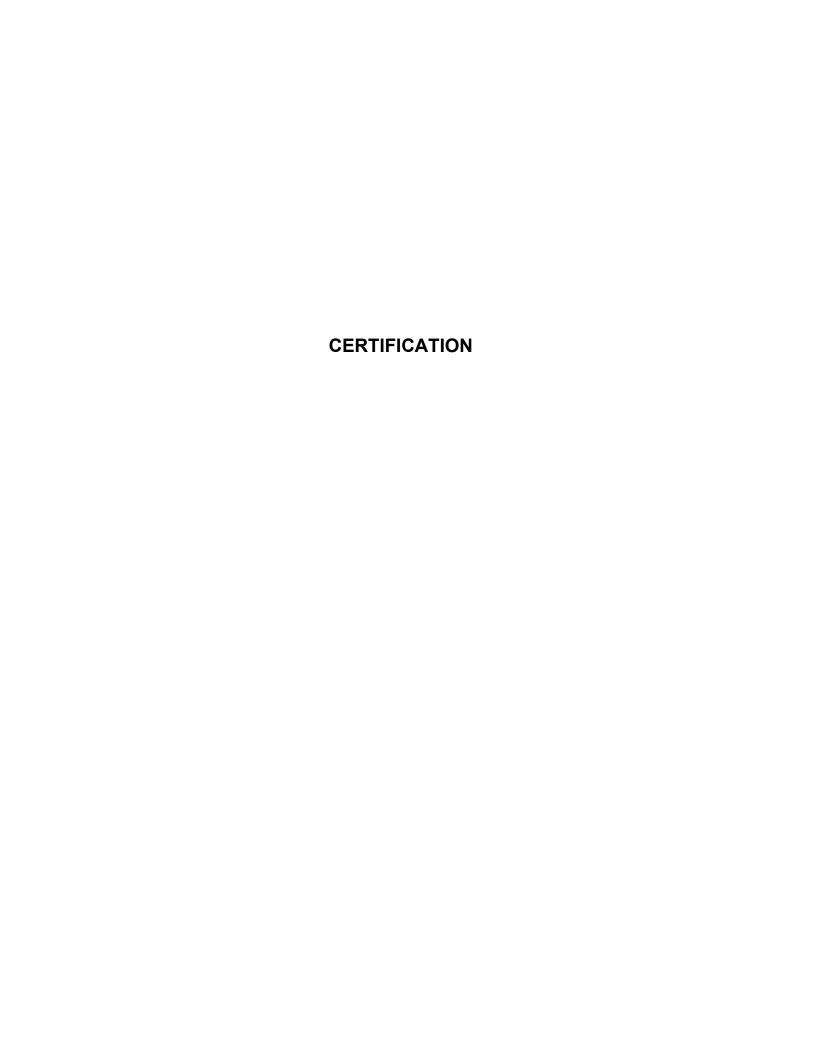


## PRELIMINARY RESULTS Airborne Asbestos Analysis TEM AHERA

Client:	Aptim			Batch No.:		571480	
	9143 Phillips H	ighway, Suite 40	=	Project:	St Cı	oix Schools	
	Jacksonville, FI	32256	<del>-</del>	Project No.:	63	1237084	
Client No.:	SHA873				\ <del>                                     </del>		
				Turn-Around T	ime: 6	Hour Rush	
Client Contac	ets:		Laborator	y Contacts:			
Contacts:			Contacts:	Frank E. Ehrenfe	eld III		
Phone:			Phone:	(856) 231-9449			
Fax:			Fax:	(856) 231-9818			
Cell/Pager:			Cell/Pager:	(609) 929-4211			
E-Mail:	4		E-Mail:	frankehrenfeld@	iatl.com		
Chain of Cust	today						
Samples Taken i			Date:		Time:		
Samples Rec'd a	1 444	K. Goedd	Date:	8/25/2018	Time:		
Samples Analyze	_	M. Stewar	Date:	8/25/2018	Time:		
Preliminary Resi	-	IVI. Glovial	Date:	0/25/2010	Time:		
Preliminary Resi	_		Date:	Time:			
- Hall-Marin Sal	1000		Summary Data				
		Tra	smission Electron Microsco	inv			
		7780	AHERA 40CFR 763	123			
Client	IATL	Volume			Results	Results	
Sample ID #	Sample ID #	(L)	Comments		s/mm²	s/cc	
H-1	6591061	1300	Chrysotile		15.4	0.0046	
H-2	6591062	1300	Chrysotile		30.8	0.0091	
H-3	6591063	1313	None Detecte	ed	< 15.4	< 0.0045	
H-4	6591064	1287	None Detecte	ed	< 15.4	< 0.0046	
H-5	6591065	1287	None Detecte	ed	< 15.4	< 0.0046	
			One contract				
					71771		
			=======================================				
AHERA Clerance	Criteria is 70 s/mm <sup>2</sup> .	Av	rage $(s/mm^2) = 18.5$		Grid Box	#: 1167	
				į.	_		
Z Test Reults (see	attached, if applicab	le)			Instrument (I,	II, III I	

These preliminary results are issued by IATL to expedite procedures by the clients based upon the above data. IATL assumes that all of the sampling methods and data upon which these results are based, has been accurately supplied by the client. These results may not have been reviewed by the Laboratory Director. Final Certificates of Analysis will follow these preliminary results. The signed COAs are to be considered the official results.

Revision Date: 06/22/18





Certificate # MEC99B726E8428407

## David Mosher

completed the requirements for asbestos accreditation under Section 206 of TSCA Title II, 15 USC 2646 has on 1/17/2018, in Jacksonville, FL

## Asbestos Abatement Contractor/Supervisor Refresher

as approved by FL

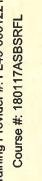
from 1/17/2018 to 1/17/2018 and passed the associated exam on 1/17/2018 and the US EPA under 40 CFR 763 (AHERA)

with a score of at least 70%

Training Provider #: FL49-0001221

Bill Young

Instructor



SSN: XXX-XX-6863

Lawrence, KS. 66044 Expiration: 1/17/2019

P.O. Box 786

IN COD

Thomas Mayhew BUIM

President

www.metaenvironmental.net

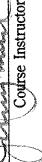
## The Deep South Center for Occupational Health & Safety

Certifies that

David W. Mosher

NIOSH 582-Sampling & Evaluating Airborne Asbestos Dust August 25-29, 1986 Has Satisfactorily Completed





Director, Center for Occupational Health & Safety

And is Hereby Awarded This Certificate.

al Dean, School of Public Health

