STATE OF CONNECTICUT DEPARTMENT OF PUBLIC HEALTH

Renée D. Coleman-Mitchell, MPH Commissioner



Ned Lamont Governor Susan Bysiewicz Lt. Governor

Environmental Health Section

October 9, 2019

Ms. Meredith Febbraio Tighe and Bond, Inc. 213 Court Street Middletown, CT 06457-3346

RE: Approval of Request to Perform Asbestos Abatement

Westhill High School, 125 Roxbury Road, Stamford, CT

Swimming Pool Wing

Dear Ms. Febbraio:

This letter is provided in response to an Application to perform Asbestos Abatement While School is In Full Session (hereafter "Application"). This Application was received by the State of Connecticut Department of Public Health (hereafter the "Department") from Tighe & Bond on October 3, 2019. The Application requests the approval from the Department to allow the removal of asbestos containing materials (hereafter "ACM") during a period of time when the school is fully occupied with children. The ACM to be abated includes approximately 7,500 square feet (hereafter "SF") of 2'x4'ceiling tiles from the swimming pool wing. The location of this material is detailed in your Application. Your request was made in accordance with the provisions of Section 19a-333-7 of the Regulations of Connecticut State Agencies (hereafter "RCSA").

Based upon a review of your Application, as well as site visits on July 31, 2019 and September 25, 2019, approval is conditionally granted by the Department to conduct this asbestos abatement activity while the school is fully occupied with children.

This asbestos abatement project shall begin no sooner than October 11, 2019 and shall be completed by November 15, 2019. Except on weekends (or days when school is not in session),



Phone: (860) 509-7365
Telecommunications Relay Service 7-1-1
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
www.ct.gov/dph
Affirmative Action/Equal Opportunity Employer



all work for this project shall be performed between 3:30 PM and 11:30 PM. This approval is granted by the Department with the following additional conditions:

- 1) This project shall be subject to full-time oversight by a Department certified Project Monitor. No work shall be performed on this project unless the Project Monitor is physically on site.
- 2) The subject work area shall be fully isolated from the occupied portion of the school using fixed barrier walls and locked doors, as detailed in your application. At no time during the performance of this asbestos abatement work shall school age children be allowed into the portion of the school where the asbestos abatement project is being performed.
- 3) Air samples collected by the Project Monitor during this project shall be analyzed by a Department certified environmental laboratory (hereafter "Laboratory"). Sample analyses shall be available on the day following the date of sample collection. Additionally, an electronic copy of air sample analyses shall be forwarded to the Department as soon as they are analyzed.
- 4) If, at any time during the course of this asbestos abatement project, fiber concentrations in the vicinity of the regulated asbestos work area exceed 0.010 fiber per cubic centimeter (hereafter "f/cc") using Phase Contrast Microscopy (hereafter "PCM") analysis, work on this project shall stop and the Department shall be notified. The Project Monitor shall investigate and report the cause of the elevated fiber concentration to the Department.
- 5) Any air sample analyzed by PCM that is overloaded with particulate, or any sample analysis that exceeds 0.010 f/cc, shall be further analyzed by the Laboratory using the NIOSH 7402 Transmission Electron Microscopy (hereafter "TEM") Method. Results of the NIOSH 7402 TEM sample analyses shall be submitted to the Department, and the Stamford School District by 12:00 PM the day following collection.
- 6) If the air samples further analyzed by the Laboratory using NIOSH 7402 TEM methods are determined to have fiber concentrations that are less than or equal to 0.010 asbestos fibers per cubic centimeter (af/cc), abatement work may recommence following verbal approval from the Department.
- 7) If any air sample further analyzed by the Laboratory using NIOSH 7402 TEM methods is either overloaded with particulate and cannot be analyzed or, if the sample fiber concentration exceeds 0.010 af/cc, the area outside the regulated asbestos work area shall be considered contaminated with asbestos. The facility shall be closed. The Project Designer shall submit to the Department a written assessment of the cause of the incident.

Ms. Meredith Febbraio October 9, 2019 Page 3 of 3

The Department shall issue a written approval before the building can be reopened, and the asbestos abatement project may be resumed.

8) At the completion of this project, the Project Monitor shall provide the Department with a copy of the results of the visual inspections performed, as well as the analysis of air sampling conducted, to determine the completion of this asbestos abatement project.

Where conflicts may exist between this document and any other document submitted as part of the Request, this document shall take precedence. Additionally, this approval by the Department to perform asbestos abatement while school is in session does not relieve the Asbestos Contractor or the facility owner from satisfying the requirements of all applicable federal, state and municipal regulations. The Department reserves the right to rescind this approval if any of the conditions of this approval are violated, or should the Department determine that equivalent means of asbestos emission control are not being maintained.

Please contact me at 860.509.7365 should you have any questions regarding this approval.

Sincerely,

Stephen P. Dahlem

Supervising Environmental Analyst

Asbestos Program

Environmental Health Section

SIS Stamford WesthillHighSchool Febbraio 08012019



October 3, 2019

Mr. Stephen Dahlem Supervising Environmental Analyst State of Connecticut Department of Public Health- Asbestos Program 410 Capitol Avenue, MS #51 AIR P.O. Box 340308 Hartford, Connecticut 06134-0308

Permission to Perform Asbestos Abatement Activities Re:

Full Student/Children Occupancy

Mold Task Force Project Westhill High School

125 Roxbury Road, Stamford, Connecticut

Dear Mr. Dahlem:

On behalf of our client, the City of Stamford Public Schools, Tighe & Bond, Inc. (Tighe & Bond) is submitting this request for permission to conduct asbestos abatement during full student/children occupancy at the above referenced facility.

Asbestos abatement to be conducted during full student/children occupancy is scheduled to start on Friday, October 11, 2019, and be completed by Friday, November 15, 2019. The asbestos abatement to be performed during full student/children occupancy includes the removal of the following:

Swimming Pool Wing

 Approximately 7,500 Square Feet (SF) of <1% Asbestos-Containing 2'x4' Ceiling Tiles (Note Non-Asbestos 1'x1' Ceiling Tiles Scheduled for Demolition in Area)

Limited bulk sampling of suspect Asbestos-Containing Materials (ACM) anticipated to be disturbed by the project was performed by Tighe & Bond's state of Connecticut licensed Asbestos Consultant - Inspectors Randy Taylor and Bob Hobbins. See Appendix A for copies of the Laboratory Analytical Report and Chain-of-Custody Form. The Project Work Plan was created by Meredith Febbraio, a licensed Asbestos Consultant - Project Designer (license #000351). The abatement contractor is A.A.I.S Corporation of West Haven, Connecticut (license #000017).

The school has informed Tighe & Bond the school will be fully occupied during the abatement project by regular school activities, however all abatement activities will take place during second shift, approximately 3:30 pm - 11:30 pm.

Building occupants will be isolated from the asbestos abatement area via hard barriers constructed outside the lower level door to the pool. Signs indicating children under the age of 18 shall not be permitted past the hard barriers will be posted. Please see Appendix B for a diagram of the physical barriers and warning signs separating the asbestos abatement locations from the rest of the school.

Asbestos Abatement

Work will be performed in accordance with all State and Federal regulations and shall include removal of <1% asbestos-containing materials as asbestos waste. The interior work area will have a contiguous worker decontamination unit attached to a negative pressure containment constructed of two layers of six-mil polyethylene sheeting on walls not scheduled for demolition, two layers of six-mil polyethylene sheeting on floors and scaffolding, and six-mil polyethylene sheeting critical barriers. The Roof Top Unit (RTU) Air Handler Units (AHUs) servicing the work areas are located within rooftop penthouses and will be shut down and locked out/tagged out (LOTO) prior to start of asbestos abatement.

Decontamination unit water and work area water will be obtained from the sinks located in the custodian closets near the work areas. Work area power will be obtained from power panel connected to the electrical panels in the supply rooms in the same general areas.

The waste generated during asbestos abatement will be properly bagged, labeled, and transported to the properly signed and lined dumpsters located in the asphalt black top area located in the rear loading dock area.

Interior work areas will be cleared using Transmission Electron Microscopy (TEM) reoccupancy air sampling clearance based on AHERA clearance criteria.

Project Monitoring Activities

All asbestos abatement activities will have full-time project monitoring services provided by a Tighe & Bond project monitor(s) licensed by the State of Connecticut Department of Public Health (CTDPH).

The project monitor will check worker paperwork and set up monitoring air samples as the first task of the day. The project monitor and abatement supervisor will be regularly checking the engineering controls throughout the day. The project monitor will be changing and reading air samples throughout the day.

Background Phase Contrast Microscopy (PCM) ambient air samples were taken on Friday, September 20, 2019, in areas of the building where asbestos abatement is occurring. Results of the background air samples are provided in Appendix C.

Tighe & Bond intends to use the background air sample results as an action level for comparison to samples collected during abatement. If airborne fiber concentrations during abatement exceed the background levels, Tighe & Bond will investigate the possible reason why the air samples exceeded the ambient background levels.

During abatement, air sampling will be performed at the entrance to the decontamination units, within the areas outside the work areas, and within the negative air exhaust tube. Copies of the Phase Contrast Microscopy (PCM) air sampling sheets will be provided to CTDPH representatives daily via e-mail.

If the airborne fiber concentrations during abatement ever exceed 0.010 f/cc the job will be shut down (if necessary) and the samples sent in for National Institute for Occupational Safety and Health (NIOSH) 7402 TEM analysis. The affected areas will be wet wiped, High Efficiency Particulate Air (HEPA) vacuumed, decontaminated, etc. and work will not be allowed to begin until any possible breeches have been corrected. If the NIOSH 7402 TEM analysis identifies asbestos fibers above 0.005 fibers/cubic centimeter (f/cc) the CTDPH will be notified within six hours of the results.



Tighe & Bond will collect approximately 6-10 background/ ambient PCM air samples per day during abatement activities. Additional air samples may be collected based on the monitor's professional judgment.

Tighe & Bond will monitor exposure levels and verify adherence to the project work plan during the performance of abatement activities. If problems arise, Tighe & Bond's Project Monitor will notify the City of Stamford Public Schools, who will have the authority to stop the abatement work at any time it is determined that conditions are not within the specification, or that a health hazard might exist for other employees or building occupants, or that the potential exists for contamination of the environment.

Contingency Plan for Elevated Fiber Levels

Air sampling will be performed during every work shift as described above. Air samples may be collected to address and evaluate water leaks, power failures, and the failure of negative air pressure inside containment. The following will be implemented for contingency related sampling:

- 1) The daily air sampling results during full occupancy will also be forwarded to the Owner for their records.
- 2) If any air sample exceeds background levels or 0.01 f/cc the sample will be analyzed by the NIOSH 7402 TEM method. The CTDPH will be notified by the project monitor if the sample fiber concentration exceeds 0.005 f/cc.
- 3) If the TEM air sample results confirm contamination of occupied areas of the building, the following action plan will be set in motion by the Superintendent:
 - a. Building occupants will be notified of the area that is to be closed.
 - b. The affected portion of the building will remain closed and all construction and abatement work will remain stopped until written decontamination procedures (from project designer) have been completed by the abatement contractor and written permission to resume occupancy has been received from CTDPH.
 - c. The project monitor will provide daily briefings on the progress of the decontamination procedures and air testing.
 - d. The affected areas of the building will not be re-occupied and the abatement work will not resume until written authorization has been given by the CTDPH.

Contingency Plan for Water Leaks and Power Failure/HEPA Filtration Unit Shutdown

Water Leaks

Abatement personnel, custodians, and building occupants will be instructed to report any signs of water leaks in occupied areas immediately to the building owner.

The project monitor and abatement contractor will immediately investigate to determine the source and extent of the water leak.

All abatement activities will be stopped immediately should the water leak be occurring in the interior of the building adjacent to the work area. The following will be initiated if a water leak is discovered:

1) Stop work, check containment integrity and reseal floor/wall penetrations and reseal polyethylene sheeting in the area of the leak. Abatement work will not



- resume until the project monitor is satisfied the source of the water leak has been repaired and the cleanup of the water has been completed.
- Should a visible puddle of water be detected then the Owner will be contacted immediately. The CTDPH will be contacted within one hour or as soon as possible after leak is discovered.
- 3) The abatement contractor will stop work, check containment integrity and reseal floor wall penetrations and reseal polyethylene sheeting in the area of the leak. Abatement work will not resume until the project monitor has determined a written response action to address the potentially contaminated surfaces, the abatement contractor has cleaned up the affected area, and the monitor is satisfied the response action is complete.
- 4) Air samples will be completed for PCM analysis in the area of the response action. Abatement work will not resume until the project monitor is satisfied that the source of the leak has been repaired and the air results meet the criteria previously described.

Power Failure/HEPA Filtration Unit Shutdown

The following will occur should the containment's power fail and/or the HEPA filtration unit's shutdown:

- 1) All abatement work shall stop immediately and will not restart until the power problem is corrected and the filtration units are working.
- If the problem is expected to exceed one hour the project monitor will notify the Owner and CTDPH. All personnel shall vacate the work area and the decontamination facility shall be sealed airtight.
- 3) Abatement work will be resumed only after the project monitor is satisfied the problem has been fixed (and probably won't reoccur) and the power and negative air machines are operational.
- 4) Air sampling will be performed in the area affected per the criteria previously described.

Attached in Appendix D please find a copy of the notification to parents, teachers, building occupants, and other employee organizations that will be sent out by the school prior to the commencement of abatement activities. Also, attached as Appendix E is a letter from the school facilities manager requesting permission to perform asbestos abatement activities during full student/children occupancy.

We look forward to your approval on this request. Should you have any questions, please feel free to contact me at (203) 712-1140.

Sincerely,

Meredith Febbraio Project Manager



Enclosure:

Appendix A Asbestos Laboratory Results and Chain of Custody Forms

Appendix B Site Plan Figure Depicting Abatement Work Areas

Appendix C PCM Background Air Sampling Results

Appendix D Building Occupant Notification

Appendix E School Representative Request Letter to Conduct Asbestos Abatement

During Partial Occupancy



Tighe&Bond

APPENDIX A



EMSL Analytical, Inc.

307 West 38th Street New York, NY 10018 Tel/Fax: (212) 290-0051 / (212) 290-0058

http://www.EMSL.com / manhattanlab@emsl.com

Attention: Kevin McCarthy

Tighe & Bond 213 Court Street Suite 1100

Middletown, CT 06457

Project: 28-2087-33G/ WESTHILL HS/ WESTHILL

EMSL Order: 031901308 Customer ID: TIGH62

Customer PO: Project ID:

> (860) 704-4760 Phone:

> > (860) 704-4775

Received Date: 01/19/2019 4:46 AM Analysis Date: 01/19/2019 - 01/20/2019

Collected Date: 01/17/2019

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

			Non-Asl	bestos	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
01A 031901308-0001	CORRIDOR IN 300 - WHITE PIPE INSULATION AT SADDLE	White Non-Fibrous Homogeneous	40% Cellulose	45.0% Non-fibrous (Other)	15% Amosite
01B 031901308-0002	CORRIDOR IN 300 - WHITE PIPE INSULATION AT SADDLE				Positive Stop (Not Analyzed)
01C 031901308-0003	CORRIDOR IN 300 - WHITE PIPE INSULATION AT SADDLE				Positive Stop (Not Analyzed)
02A 031901308-0004	BUSINESS DEPT STORAGE - TAN PIPE FITTING INSULATION	Tan Non-Fibrous Homogeneous	30% Cellulose 50% Glass	20.0% Non-fibrous (Other)	None Detected
02B 031901308-0005	BUSINESS DEPT STORAGE - TAN PIPE FITTING INSULATION	Tan Fibrous Homogeneous	30% Cellulose 40% Glass	30.0% Non-fibrous (Other)	None Detected
02C 031901308-0006	BUSINESS DEPT STORAGE - TAN PIPE FITTING INSULATION	Tan Non-Fibrous Homogeneous	55% MinWool 15% Wollastonite	30,0% Non-fibrous (Other)	None Detected
03A 031901308-0007	KITCHEN OFFICE - 1X1 CEILING TILE TYPE 1	Tan/White Fibrous Heterogeneous	40% Cellulose 55% MinWool	5.0% Non-fibrous (Other)	None Detected
03B 031901308-0008	KITCHEN OFFICE - 1X1 CEILING TILE TYPE 1	Brown Fibrous Homogeneous	50% Cellulose 35% MinWool	15.0% Non-fibrous (Other)	None Detected
04A 031901308-0009	POOL - SEATING - 1X1 CEILING TILE TYPE 2	Brown/Tan Non-Fibrous Homogeneous	50% Cellulose 45% MinWool	5.0% Non-fibrous (Other)	None Detected
04B 031901308-0010	POOL - SEATING - 1X1 CEILING TILE TYPE 2	Tan Fibrous Homogeneous	40% Cellulose 45% MinWool	15.0% Non-fibrous (Other)	None Detected

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.

Initial report from: 01/20/2019 06:38:48



EMSL Analytical, Inc.

307 West 38th Street New York, NY 10018 Tel/Fax: (212) 290-0051 / (212) 290-0058

http://www.EMSL.com / manhattanlab@emsl.com

Attention: Kevin McCarthy

Tighe & Bond 213 Court Street Suite 1100

Middletown, CT 06457

Project: 28-2087-33G/ WESTHILL HS/ WESTHILL

EMSL Order: 031901308 Customer ID: TIGH62

Customer PO: Project ID:

> (860) 704-4760 Phone:

> > (860) 704-4775

Received Date: 01/19/2019 4:46 AM Analysis Date: 01/19/2019 - 01/20/2019

Collected Date: 01/17/2019

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date:

01/19/2019

Sample Receipt Time:

4:46 AM

Analysis Completed Date:

01/20/2019

Analysis Completed Time:

5:03 AM

Analyst(s):

Tiquasha Thompson PLM (3)

Samples Reviewed and approved by:

James Hall, Laboratory Manager or other approved signatory

James PALW

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.



031901308

213 Court Street, Suite 1100, Middletown, CT 06457

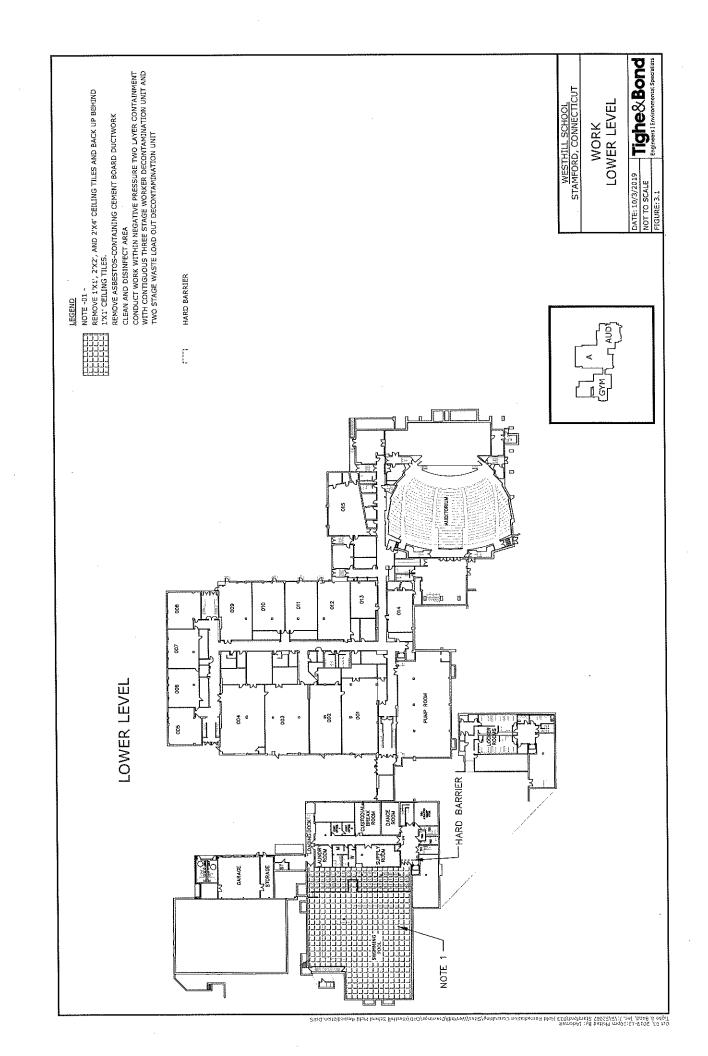
Phone 860-704-4760

SAMPLE LOG FOR ASBESTOS BULKS

Sheet lof |

Project Name:	Weshill HS Project No	28-2087-33G
Building: <u>Ne</u>	Sth. Project Manager: _	Kern McCarthy
Sample ID	Sample Location	Material
OIA	Corridor in 3003	White Pipe Insulation
OIB		a Saddle.
OIC		
02A	Business Rept Storage	Tan Pipe fitting Insulation
02B	1	
020		
03A	Kitchen Office	IXI Certing Tife Type 1
03B	Kitchen Office	IXI Certing Tile Type 1
OYA	Pool - Seating	11 Celling The Type 2
0413	Pool - Secting	31 /1
		20 A
. V	-	
Analysis Method:	PLM Other	Turnaround Time
Based on the turnaro	ound time indicated above, analyses are due to Tighe & Bond, In ease call the office if analyses will be late at 860-704-4760.	== \ \times \tau'
77.5-30-7100-W-4		py Report Total # of Samples:
layer samples unless	ns: Stop analysis on first positive sample in each homogeneous indicated. Do Not Point Count. If NOB group sample results are M NOB, per group, as noted by asterisk and bold front.	set of samples unless otherwise noted. Do not 0% - < 1% by PLM, analyze only "A" group
Samples collected	by: _ Kanely Try /01 Date: 1/17/	Time
Samples [Rec'd][S	Sent by] [] Date: [][////////////////////////////////////
Samples Received	by:	Time: 4:46477
Shipped To:	EMSL State Other	
Method of Shipmer	nt: Fed Ex Other	-

APPENDIX B



APPENDIX C

PHASE CONTRAST MICROSCOPY AREA AIR SAMPLING DATA SHEET

28-2087-033 Project Monitor License #: Project Monitor Name: Project Number: Sampling Date: - WHHS Stamford - Mold Task Force Rol Work Area Designation: $arphi_{col}$ Project Location: Project Name: Microscope #:

Sample #	Sample	Project	000	(minutes)	S)	(Liters/	(Liters/Minute)	Average Flow Rate	Total Volume	Fiber	Concentration (Fibers/CC)
	Location	Activity	o	Off	Min	Pre	Post	(Liters/Min)	(Liters)	(Fib/Field)	(a) (siagili)
@1201912T-01	Freld Blank	Backgoon	1	-1		1	1		1	0/100	200,07
20-	-02 Scaled Hank	>	1	1	- (\	-		-	0/100	200.07
59	Gym		2022	2230	128	10,01	10.0	10,0	1280	2/100	200.07
40-	1st floor Lobby		h202	7522	(28	0.01	0.01	0,01	1280	5/100	200'07
50.	-05 (Ground Floor - Lebbu		2026	4522	128	0.01	10.0	10.0	0821	5/100	200.07
90,	-06 Rol- Filter Rein		5:292	9822	128	0,01	0.0)	0,01	1290	3/100	20000>
20-	-67 Pool - Huchess	4	2030	2238	128	0,01	5.01	10.25	1312	4/100	7.00.07
										Z.	
1,0-	Dep	1)	1	l	1	1	(3/100	200,002

Chain of Custody and Sample Receiving Log

Samples Analyzed By:	Randy Tayles	Date:	9/24/19	Time:	AAR#	9450
Sample Collected By:	Range Foul of	Date:	9/20/19	Time:		
Samples Relinquished By:)	Date:	,	Time:		
Samples Received By:		Date:		Time:		
Results Reviewed By:		Date:		Time:		

3h001 × 1280

Fax 860.704.4775

Tel 860.704.4760

Middletown, CT 06457

213 Court Street

X 1312 **Tighe**&Bond

APPENDIX D

Tighe&Bond

APPENDIX E