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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: March 28<sup>th</sup>, 2018

Project No.: PE7056 Location: 2B1 Report No.: 104

#### 1. Details To Be Noted:

On March 28<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside 500 Block (2B1) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the ductwork work that contained asbestos duct sealant.

One (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-274	11:10 (am)	30	15	A-11	750	Block 500 (2B1) * Clearance Sample	N/D

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Minimum -0.02" H₂O Maintained  Filters Inspected and Changed as Required  √	Number of Units Operating Effectively	<b>√</b>
Filters Inspected and Changed as Required √	Minimum -0.02" H₂O Maintained	$\vee$
	Filters Inspected and Changed as Required	

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	V
Amended Water	V
Negative Air Filtration	V

# 7. Waste Management

Waste properly double bagged before leaving site	V
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	V
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	5
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: \_Meal maille

**Neal Millman, CET** 

Senior Environmental Consultant

Kevin Kennedy	DTIE
lan Harper	APM
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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: March 7<sup>th</sup>, 2018

Project No.: PE7056 Location: 2B1 Report No.: 103

#### 1. Details To Be Noted:

On March 7<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside 500 Block (2B1) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the ductwork work that contained asbestos duct sealant.

One (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-069	9:18 (am)	30	15	R-4	450	Block 500 (2B1) * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Nearly and Heir One and a Effectively	2
Number of Units Operating Effectively	V
Minimum -0.02" H₂O Maintained	
Filters Inspected and Changed as Required	V

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	V
Amended Water	V
Negative Air Filtration	V

# 7. Waste Management

Waste properly double bagged before leaving site	
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	V
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal maille

**Neal Millman, CET** 

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: March 2<sup>nd</sup>, 2018

Project No.: PE7056 Location: 1A1 Report No.: 102

#### 1. Details To Be Noted:

On March 2<sup>nd</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside 300 Block (1A1) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the ductwork work that contained asbestos duct sealant.

One (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-067	9:55 (am)	30	15	R-4	450	Block 300 (1A1) * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Nearly and Heir One and a Effectively	2
Number of Units Operating Effectively	V
Minimum -0.02" H₂O Maintained	
Filters Inspected and Changed as Required	V

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	V
Amended Water	V
Negative Air Filtration	V

# 7. Waste Management

Waste properly double bagged before leaving site	
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	V
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal maille

**Neal Millman, CET** 

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL - SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

> P.O. Box 2000 Charlottetown, PEI

C1A 7N8 Attn: Tyler Richardson

February 26<sup>th</sup>, 2018 Date:

Project No.: PE7056 Location: 2B1 Report No.: 100

#### 1. **Details To Be Noted:**

On February 26th, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 2B1 (500 Block) and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to proceed with abatement work. During the shift the contractor are doing the final cleaning of the work area (Vacuuming).

Two (2) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-057	8:26 (am)	74	15	R-4	1110	Block 500 (2B1) North End * Perimeter Sample	N/D
√D-060	8:25 (am)	72	15	R-3	1080	Block 500 (2B1) West End * Perimeter Sample	N/D

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO

**Senior Consultant:** 

Neal Millman, CET

Senior Environmental Consultant

**ALL-TECH Environmental Services Limited** 

Kevin Kennedy DTIE CC Ian Harper **APM** Dave Wadden **APM** Jody MacIntyre **APM** Gerald McCormack TOSH



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# ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 27<sup>th</sup>, 2018

Project No.: PE7056 Location: 2B1 Report No.: 101

#### 1. Details To Be Noted:

On February 27<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work enclosure for section 2B1 (500 Block) and conducted clearance sampling for airborne asbestos fibres.

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to proceed with abatement work. During the shift the contractor finished the final cleaning of the work area (Vacuuming).

Four (4) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-065	8:12 (am)	30	15	R-4	450	Block 500 (2B1) North End of Enclosure * Clearance Sample	N/D
√D-063	8:10 (am)	30	15	R-3	450	Block 500 (2B1) West End of Enclosure * Clearance Sample	N/D
√D-066	8:55 (am)	30	15	R-3	450	Block 500 (2B1) East End of Enclosure * Clearance Sample	N/D
√D-064	8:56 (am)	30	15	R-4	450	Block 500 (2B1) South End of Enclosure * Clearance Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	
Filters Inspected and Changed as Required	

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	
Amended Water	V
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	NA
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	V
ACM bagged as work progresses	NA

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: \_Mal mulla **Neal Millman, CET** 

Senior Environmental Consultant

CC	Kevin Kennedy	DTIE
	lan Harper	APM
	Dave Wadden	APM
	Jody MacIntyre	APM
	Gerald McCormack	TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 23<sup>rd</sup>, 2018

Project No.: PE7056 Location: 2B1 Report No.: 99

#### 1. Details To Be Noted:

On February 23<sup>rd</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 2B1 (500 Block) and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to proceed with abatement work. During the shift the contractor finished removing the ceiling tiles and also finished double bagging the tiles. They are now starting the final cleaning of the work area (Vacuuming).

Two (2) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-061	10:20 (am)	50	15	R-4	555	Block 500 (2B1) North End * Perimeter Sample	N/D
√D-062	10:21 (am)	30	15	R-3	480	Block 500 (2B1) East End * Perimeter Sample	0.002

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO

**Senior Consultant:** 

Neal Millman, CET

Senior Environmental Consultant

**ALL-TECH Environmental Services Limited** 

Kevin Kennedy DTIE CC Ian Harper **APM** Dave Wadden **APM** Jody MacIntyre **APM** Gerald McCormack TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 22, 2018

Project No.: PE7056 Location: 2B1

Report No.: 98

#### 1. Details To Be Noted:

On February 22<sup>nd</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 2B1 (500 Block) and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to proceed with abatement work. During the shift the contractor continued removing ceiling tiles and was cleaning the work area as work progresses.

Two (2) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-058	1:43 (pm)	37	15	R-4	555	Block 500 (2B1) North End * Perimeter Sample	< 0.001
√D-059	1:50 (pm)	32	15	R-3	480	Block 500 (2B1) East End * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO

Prompt Response		N	I/A			
Negative Air Pressure						
Number of Units Operating Eff	ectively	6				
Minimum -0.02" H <sub>2</sub> O Maintaine	ed	$\sqrt{}$				
Filters Inspected and Changed	as Required		V			
Personal Protective Equip	ment					
Powered Air Purifying Respirat	ors with HEPA Filters		V			
Disposable Coveralls			V			
CSA Safety Boots			V			
Dust Control						
Wet Wiping Techniques		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
Amended Water		N al				
Negative Air Filtration			V			
Waste Management						
Waste properly double bagged	before leaving site		NA			
Waste transfer manifest docun	nentation					
		_				
			V			
Work Site Cleanliness	ses		√ NA			
Work Site Cleanliness  General House Keeping  ACM bagged as work progress	ses					
Work Site Cleanliness General House Keeping	ses Marer	nco				

Senior Consultant:

Larry Koughan CET, CRSP

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

Kevin Kennedy DTIE СС Ian Harper APM lan Harper Dave Wadden APM Jody MacIntyre APM Gerald McCormack TOSH



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# ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 20<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A4 Report No.: 97

#### 1. Details To Be Noted:

On February 20<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 2B1 (500 Block) and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to proceed with abatement work. During the shift the contractor continued removing ceiling tiles from the work area and good work practices were being followed.

Two (2) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-056	12:20 (pm)	65	15	R-4	975	Block 500 (2B1) North End * Perimeter Sample	N/D
√D-055	12:40 (pm)	40	15	R-3	600	Block 500 (2B1) East End * Perimeter Sample	N/D

## ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO

**Senior Consultant:** 

Neal Millman, CET

Senior Environmental Consultant

СС	Kevin Kennedy	DTIE
	lan Harper	APM
	Dave Wadden	APM
	Jody MacIntyre	APM
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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 16<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A4 Report No.: 96

#### 1. Details To Be Noted:

On February 16<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 2B1 (500 Block) and conducted perimeter sampling for airborne asbestos fibres.

Marenco also completed the main student entry (1A2) with perimeter while removal of ceiling tile and one clearance sample completed after removal and cleaning.

During the inspection it was noted that all items and surfaces were cleaned to standard (1A2) with all Negative Air Pressure units in good working condition.

Two (2) perimeters and one (1) final clearance sample were collected in the two work areas. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-044	7:30 (am)	75	15	R-4	1125	Block 500 (2B1) * Perimeter Sample	N/D
√D-050	8:30 (am)	30	15	R-3	450	Main Student Entry (1A2)  * Perimeter Sample	N/D
√D-049	10:00 (am)	30	15	R-23	450	Main Student Entry (1A2)  * Final Clearance	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

Penetrations Observed	NO
	NO NO
Repairs Required	NO N/A
Prompt Response	IN/A
Negative Air Pressure	
Number of Units Operating Effectively	6 in (2B1) and 1 in (1A2) areas (main entry)
Minimum -0.02" H <sub>2</sub> O Maintained	$\sqrt{}$
Filters Inspected and Changed as Required	V
Personal Protective Equipment  Powered Air Purifying Respirators with HEPA Filters	<b>√</b>
Disposable Coveralls	V √
CSA Safety Boots	V
Dust Control  Wet Wiping Techniques  Amended Water  Negative Air Filtration	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Waste Management  Waste properly double bagged before leaving site	NA
Waste transfer manifest documentation	
vvado transior manifest decumentation	
Work Site Cleanliness	
Work Site Cleanliness General House Keeping	V

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant:

Neal Millman, CET

Senior Environmental Consultant

cc Kevin Kennedy DTIE
lan Harper APM
Dave Wadden APM
Jody MacIntyre APM
Gerald McCormack TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 12, 2018

Project No.: PE7056 Location: 1A4 Report No.: 95

#### 1. Details To Be Noted:

On February 12, 2018 ALL-TECH Environmental Services conducted a final inspection of the work area enclosure for section 1A1 (300 Block) and conducted final clearance sampling for airborne asbestos fibres in four separate locations.

During the inspection it was noted that all items and surfaces were cleaned to standard with all Negative Air Pressure units in good working condition.

Four (4) final clearance samples were collected in the work area. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-051	2:10 (pm)	35	15	R-3	525	Block 300 Rm 110 * Final Clearance	N/D
√D-052	2:12 (pm)	35	15	R-4	525	Block 300 Corridor outside Rm 104 * Final Clearance	N/D
νD-053	2:13 (pm)	35	15	R-2	525	Block 300 Locker Rm * Final Clearance	N/D
√D-054	2:14 (pm)	34	15	A-11	510	Block 300 corridor next to Block 400 * Final Clearance	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

General House Keeping	√ ·
ACM bagged as work progresses	NA

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Larry Koughan, CET, CRSP

Senior Environmental Consultant

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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 9<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A4 Report No.: 93

#### 1. Details To Be Noted:

On February 9<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 1A1 (300 Block) and conducted perimeter sampling for airborne asbestos fibres at 1A1 (Back Entry) and 1A2 (Main Entry).

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to continue with abatement work. All the ceiling tiles are removed and double bagged, Marenco started the removal of the asbestos containing joint compound located in the washroom ceiling.

Two (2) perimeter sample were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
νD-048	8:40 (am)	40	15	R-2	600	Lower level Section 1A1 300 Block * Perimeter Sample	N/D
√D-047	8:45 (am)	30	15	R-3	450	Lower Section 1A2 Main Entry * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

Penetrations Observed Repairs Required Prompt Response  4. Negative Air Pressure  Number of Units Operating Effectively		NO NO N/A				
Repairs Required Prompt Response  1. Negative Air Pressure		NO NO				
Repairs Required Prompt Response  1. Negative Air Pressure		NO				
Prompt Response  1. Negative Air Pressure						
1. Negative Air Pressure						
Number of Units Operating Effectively						
		6				
Minimum -0.02" H <sub>2</sub> O Maintained		V				
Filters Inspected and Changed as Required						
5. Personal Protective Equipment						
Powered Air Purifying Respirators with HEPA Fi	ilters	$\sqrt{}$				
Disposable Coveralls		$\sqrt{}$				
CSA Safety Boots		V				
6. Dust Control						
Wet Wiping Techniques						
Amended Water						
Negative Air Filtration		V				
7. Waste Management						
Waste properly double bagged before leaving si	ite	NA				
Waste transfer manifest documentation						
3. Work Site Cleanliness						
General House Keeping		V				
ACM bagged as work progresses		NA				
Number of Workers On-Site						
Asbestos Abatement Contractor	Marenco	6				
Project Consultant ALL-T	ECH Environmental	1				

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant:

Neal Millman, CET

Senior Environmental Consultant

cc Kevin Kennedy DTIE
lan Harper APM
Dave Wadden APM
Jody MacIntyre APM
Gerald McCormack TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 8<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A4 Report No.: 93

#### 1. Details To Be Noted:

On February 8<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 1A1 (300 Block) and conducted perimeter sampling for airborne asbestos fibres (Back Entry).

During the inspection it was noted that all barriers and control systems were maintained in good condition. Negative Air Pressure was monitored and sufficiently attained at the time of the inspection.

During the shift the contractor continued removing ceiling tiles from the work area and good work practices were being followed.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-046	8:40 (am)	45	15	R-2	675	Lower level ceiling Section 1A1 300 Block * Perimeter Sample	N/D

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

Penetrations Observed	NO
Repairs Required	NO

Prompt Response			N/A
Negative Air Pressure			
Number of Units Operating Eff	ectively		6
Minimum -0.02" H <sub>2</sub> O Maintaine	ed		$\sqrt{}$
Filters Inspected and Changed	l as Required		V
Personal Protective Equip	ment		
Powered Air Purifying Respirat	ors with HEPA Filters		V
Disposable Coveralls			$\sqrt{}$
CSA Safety Boots			V
Dust Control			
Wet Wiping Techniques			$\sqrt{}$
Amended Water			V
Negative Air Filtration			V
Waste Management			
Waste properly double bagged	before leaving site		
Waste transfer manifest docun	nentation		
Work Site Cleanliness			
General House Keeping			V
ACM bagged as work progress	V		
Number of Workers On-Site			
Asbestos Abatement Contractor	Marer	nco	6
Project Consultant	ALL-TECH En	vironmental	1

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

**Senior Consultant:** 

Neal Millman, CET

Senior Environmental Consultant

СС	Kevin Kennedy lan Harper Dave Wadden Jody MacIntyre	DTIE APM APM APM
	Gerald McCormack	TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 7<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A4 Report No.: 92

#### 1. Details To Be Noted:

On February 7<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 1A1 (300 Block) and conducted perimeter sampling for airborne asbestos fibres (Back Entry).

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to proceed with abatement work.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-043	8:45 (am)	40	15	R-2	600	Lower level ceiling Section 1A1 300 Block * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of 0.8 µ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H₂O Maintained	V
Filters Inspected and Changed as Required	

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	
Amended Water	
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	NA
Waste transfer manifest documentation	

## 8. Work Site Cleanliness

General House Keeping	
ACM bagged as work progresses	NA

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal mille

Neal Millman, CET

Senior Environmental Consultant

cc Kevin Kennedy	DTIE
Ian Harper	APM
Dave Wadden	APM
Jody MacIntyre	APM
Gerald McCormack	TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: February 6<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A4 Report No.: 91

#### 1. Details To Be Noted:

On February 6<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted inspections of the work enclosure for section 1A1 (300 Block) and conducted perimeter sampling for airborne asbestos fibres (Back Entry).

During the inspection it was noted that all barriers and control systems were in place. Negative Air Pressure was monitored and sufficiently attained to proceed with abatement work.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-041	8:30 (am)	45	15	R-2	675	Lower level ceiling Section 1A1 300 Block * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of 0.8  $\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H₂O Maintained	
Filters Inspected and Changed as Required	

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	
Amended Water	
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	NA
Waste transfer manifest documentation	

## 8. Work Site Cleanliness

General House Keeping	
ACM bagged as work progresses	NA

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal mille

Neal Millman, CET

Senior Environmental Consultant

СС	Kevin Kennedy Ian Harper Dave Wadden Jody MacIntyre Gerald McCormack	DTIE APM APM APM TOSH
	Gerald McCormack	TOSH



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# ASBESTOS ABATEMENT AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI C1A 7N8

Attn: Tyler Richardson

Date: December 4, 2017

Project No.: PE7056 Location: 1A4 Report No.: 90

#### 1. Details To Be Noted:

On Monday, December 4, 2017 ALL-TECH Environmental Services Ltd. conducted final clearance sampling for airborne asbestos fibres after the contractor, Marenco, removed a small section of asbestos containing joint compound from ceiling material in section 1A4 at Three Oaks Senior High school.

One (1) clearance sample was collected within the work enclosure. Results can be found in section 2.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-783	3:30 (pm)	30	15	R-1	450	Lower level ceiling Section 1A4 * Final Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

#### 3. Work Site Cleanliness

Work area visibly cleaned to satisfactory conditions	Yes
ACM bagged and removed from the work enclosure	Yes

# 4. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	3
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Larry Koughan, CET, CRSP

Senior Environmental Consultant

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## ASBESTOS ABATEMENT AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: December 2, 2017

Project No.: PE7056

Location: 600's Corridor

Report No.: 89

#### 1. Details To Be Noted:

On Saturday, December 2, 2017 ALL-TECH Environmental Services Ltd. conducted final clearance sampling for airborne asbestos fibres after the contractor, Marenco, removed a small section of asbestos ceiling tiles from corridor 600 outside of rooms 620 & 621.

One (1) clearance sample was collected within the work enclosure. Results can be found in section 2.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-782	9:05 (am)	33	15	R-1	495	Corridor outside of Rooms 620 & 621 * Final Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassette with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

#### 3. Work Site Cleanliness

Work area visibly cleaned to satisfactory conditions	Yes
ACM bagged and removed from the work enclosure	Yes

# 4. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	2
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Larry Koughan, CET, CRSP

Senior Environmental Consultant

СС	Kevin Kennedy	DTIE
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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: October 26<sup>th</sup>, 2017

Project No.: PE7056

Location: Old Book Room

Report No.: 88

#### 1. Details To Be Noted:

On Thursday, October 26<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. Conducted Inspections of the work area around section 1A3 Old Book Room / Corridor beside music room (glove bagging) and conducted clearance sampling for airborne asbestos fibres.

Two (2) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
νC-848	9:10 (am)	35	15	A-11	450	Old Book Room * Clearance Sample	N/D
νC-763	9:45 (am)	30	15	A-11	450	Corridor Beside Music Room *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

Penetrations Observed	
Repairs Required	
Prompt Response	N/A

Number of Units Operating Effectively	
Minimum -0.02" H <sub>2</sub> O Maintained	
Filters Inspected and Changed as Required	

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	Yes
Amended Water	Yes
Negative Air Filtration	Yes

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	3
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET Senior Environmental Consultant ALL-TECH Environmental Services Limited

Neal mille



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: October 25<sup>th</sup>, 2017

Project No.: PE7056

Location: Old Book Room

Report No.: 87

#### 1. Details To Be Noted:

On Wednesday, October 25<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. Conducted Inspections of the work area for section 1A3 Old Book Room and conducted perimeter and clearance sampling for airborne asbestos fibres.

One (1) perimeter and one (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-036	9:55 (am)	35	15	R-2	525	Stage/Kitchen *Perimeter Sample	N/D
√D-037	11:50 (am)	30	15	R-3	450	Old Book Room *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

### 3. Site Conditions (Enclosures)

Penetrations Observed	No
Repairs Required	No
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	2
Minimum -0.02" H₂O Maintained	Yes
Filters Inspected and Changed as Required	Yes

### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

### 6. Dust Control

Wet Wiping Techniques	Yes
Amended Water	Yes
Negative Air Filtration	Yes

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	3
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Senior Environmental Consultant **ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453 Email: Ikoughan @toalltech.com

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date: October 23<sup>rd</sup>, 2017

P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: 1A3 & R-320

C1A 7N8 Report No.: 86

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Monday, October 23<sup>rd</sup>, 2017 ALL-TECH Environmental Services Ltd. Conducted inspections of the work for section 1A3 (Woman's Locker Room), Room 320 and conducted perimeter and clearances sampling for airborne asbestos fibres.

One (1) perimeter and (2) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-035	8:05 (am)	30	15	R-4	450	Corridor outside R-320 *Perimeter Sample	N/D
√D-034	8:45 (am)	30	15	R-4	450	1A3 Woman's Locker room *Clearance Sample	N/D
√D-029	9:45 (am)	30	15	R-3	450	R-320 *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

Penetrations Observed	
Repairs Required	

Wet Wiping Techniques	
Amended Water	-
Negative Air Filtration	

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Mille

Neal Millman, CET
Senior Environmental Consultant
ALL-TECH Environmental Services Limited



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date: Octob

P.O. Box 2000 Charlottetown, PEI C1A 7N8

Attn: Tyler Richardson

Date: October 20<sup>th</sup>, 2017

Project No.: PE7056 Location: Music Room

Report No.: 85

#### 1. Details To Be Noted:

On Friday, October 20<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work area in the Music room. One environmental clearance sample for airborne asbestos fibres was performed in the area.

One (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-033	1:05 (pm)	30	15	R-4	450	Music Room *Clearance Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

#### 3. Site Conditions (Enclosures)

Penetrations Observed	
Repairs Required	
Prompt Response	N/A

### 4. Negative Air Pressure

Number of Units Operating Effectively	-

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	
Amended Water	-
Negative Air Filtration	

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

Consultant:

Neal Millman, CET

Senior Environmental Consultant

Neal mille

**ALL-TECH Environmental Services Limited** 



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date: October 19<sup>th</sup>, 2017

P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: 1B5 & 322/323

C1A 7N8 Report No.: 84

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Thursday, October 19<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work for section 1B5 (Corridor beside kitchen), Room 322/323. One environmental perimeter and one clearance sampling for airborne asbestos fibres was performed in two separate areas.

One (1) perimeter and (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-030	9:55 (am)	30	15	A-11	450	1B5 Corridor *Perimeter Sample	N/D
√D-027	1:05 (pm)	30	15	A-11	450	Room 322/323 *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

Penetrations Observed	
Repairs Required	
Prompt Response	N/A

Number of Units Operating Effectively	-
Minimum -0.02" H <sub>2</sub> O Maintained	-
Filters Inspected and Changed as Required	-

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	
Amended Water	-
Negative Air Filtration	

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	3
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET
Senior Environmental Consultant
ALL-TECH Environmental Services Limited

Neal mille



Ph:(902) 569-0172 Fax:(902) 569-5453 Email: Ikoughan @toalltech.com

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date: October 18<sup>th</sup>, 2017

P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: Book Room

C1A 7N8 Report No.: 83

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Wednesday, October 18<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted initial inspections of the work for section 1A3 (Old Book Room) and conducted perimeter and clearances sampling for airborne asbestos fibres.

One (1) perimeter and (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-028	9:05 (am)	30	15	A-11	450	Old Book Room *Perimeter Sample	N/D
√D-027	1:05 (pm)	30	15	A-11	450	Old Book Room *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

### 3. Site Conditions (Enclosures)

Penetrations Observed	
Repairs Required	
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	-
Minimum -0.02" H <sub>2</sub> O Maintained	-
Filters Inspected and Changed as Required	-

### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

### 6. Dust Control

Wet Wiping Techniques	
Amended Water	-
Negative Air Filtration	

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET Senior Environmental Consultant

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: Ikoughan @toalltech.com

### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI C1A 7N8

Attn: Tyler Richardson

Date: October 17<sup>th</sup>, 2017

Project No.: PE7056

Location: 1A3 Room 312

Report No.: 82

#### 1. **Details To Be Noted:**

On Tuesday, October 17th, 2017 ALL-TECH Environmental Services Ltd. conducted initial inspections of the work enclosure for section 1A3 (Room 312 window removal) and conducted perimeter and clearances sampling for airborne asbestos fibres.

One (1) perimeter and (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
νD-026	11:00 (am)	30	15	A-11	450	Room 312 *Perimeter Sample	N/D
νD-025	1:40 (pm)	30	15	A-11	450	Room 312 Enclosure *Clearance Sample	N/D

None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	-
Minimum -0.02" H <sub>2</sub> O Maintained	-
Filters Inspected and Changed as Required	-

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Senior Environmental Consultant
ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: Ikoughan@toalltech.com

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: October 13<sup>th</sup>, 2017

Project No.: PE7056

Location: 1A3 Main Entry

Report No.: 81

#### 1. Details To Be Noted:

On Thursday, October 13<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted final inspections of the work enclosure for section 1A3 (Main Entry) and conducted perimeter and clearances sampling for airborne asbestos fibres.

Proper negative Air Pressure was attained during the time of inspection.

One (1) perimeter and two clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-838	8:45 (am)	45	15	R-3	675	Main Entry Corridor *Perimeter Sample	N/D
√C-836	9:55 (am)	35	15	A-11	525	North End of Enclosure *Clearance Sample	N/D
√C-837	9:55 (am)	35	15	R-1	525	South End of Enclosure *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

Penetrations Observed	NO

Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H₂O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal mille

Neal Millman, CET Senior Environmental Consultant ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: Ikoughan @toalltech.com

### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: October 12<sup>th</sup>, 2017

Project No.: PE7056

Location: 1A3 Main Entry

Report No.: 80

#### 1. **Details To Be Noted:**

On Thursday, October 12<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1A3 (Main Entry) and conducted perimeter sampling for airborne asbestos fibres.

Proper negative Air Pressure was attained during the time of inspection.

One (1) perimeter samples was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-745	9:30 (am)	40	15	R-3	600	Main Entry Corridor *Perimeter Sample	N/D

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Senior Environmental Consultant ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan@toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: October 11<sup>th</sup>, 2017

Project No.: PE7056

Location: 1A3 Main Entry

Report No.: 79

#### 1. Details To Be Noted:

On Wednesday, October 11<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1A3 (Main Entry) and conducted perimeter sampling for airborne asbestos fibres.

Proper negative Air Pressure was attained during the time of inspection.

One (1) perimeter samples was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-840	7:00 (am)	45	15	R-3	675	Main Entry Corridor *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Senior Environmental Consultant ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: Ikoughan @toalltech.com

### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

August 23, 2017 Date: Project No.: PE7056

Location: 321a, 321b, 322, & Corridor

Report No.: 77

#### 1. **Details To Be Noted:**

On Wednesday, August 23, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1A3 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that enclosure 321a, 321b, 322, and corridor was completed with signs of lockdown solution.. Proper negative Air Pressure was attained during the time of inspection.

Two (2) clearance samples and one (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-024	7:59 (am)	60	12	R-3	720	321a *Clearance Sample	N/D
√D-017	8:00 (am)	59	12	R-4	732	Corridor Inside Enclosure *Clearance Sample	N/D
√D-0023	8:01 (am)	59	15	A-111	885	Corridor *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor Marenco		4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Project Consultant:** 

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 





Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Lo

C1A 7N8

Attn: Tyler Richardson

Date: August 22, 2017

Project No.: PE7056

Location: 321a, 321b, 322, & Corridor

Report No.: 76

#### 1. Details To Be Noted:

On Tuesday, August 22, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1A3 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that workers were removing asbestos containing ceiling tile with room 322. Proper negative Air Pressure was attained during the time of inspection.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-016	10:45 (am)	110	12	R-4	1,320	Outside Enclosure (321a, 321b, 322, & Corridor) *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8µ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	5
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Project Consultant:** 

Ken Parsons, GSC HSE Consultant

ALL-TECH Environmental Services Limited



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Email: Ikoughan @toalltech.com

### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Location: 321a, 321b, 322, & Corridor

C1A 7N8

Attn: Tyler Richardson

August 21, 2017 Date: Project No.: PE7056

Report No.: 75

#### 1. **Details To Be Noted:**

On Thursday August 21, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1A3 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that workers were finished early and abatement activities were conducted in the morning. Proper negative Air Pressure was attained during the time of inspection.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-015	1:45 (am)	80	12	R-4	960	Outside Enclosure (321a, 321b, 322, & Corridor) *Perimeter Sample	N/D

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	0
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Project Consultant:** 

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Loc

C1A 7N8

Attn: Tyler Richardson

Date: August 18, 2017

Project No.: PE7056

Location: 1A2 Stairwell / Balcony

Report No.: 75

#### 1. Details To Be Noted:

On Thursday August 18, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1A3 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that all barriers were in place and a deacon was fully setup and functional. Proper negative Air Pressure was attained during the time of inspection. Workers continued asbestos abatement on the ceiling joint compound during today shift.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-022	8:40 (am)	80	15	R-4	1200	Room 321 Part (1A3) *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor Marenco		4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Project Consultant:** 

Neal Mille

Neal Millman C. E. T.
Senior Environmental Consultant

ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: August 17, 2017

Project No.: PE7056

Location: 1A2 Stairwell / Balcony

Report No.: 74

#### 1. Details To Be Noted:

On Thursday August 17, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1A3 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that all barriers were in place and a deacon was fully setup and functional. Proper negative Air Pressure was attained during the time of inspection. Workers started asbestos abatement on the ceiling joint compound during today shift.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-021	1:00 (pm)	45	15	R-2	675	Room 321 Part (1A3) *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor Marenco		4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Yours Very Truly,

**Project Consultant:** 

Neal Mille

Neal Millman C. E. T. Senior Environmental Consultant

ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: Ikoughan @toalltech.com

### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Location: 1A2 Stairwell / Balcony

C1A 7N8

Attn: Tyler Richardson

August 14, 2017 Project No.: PE7056

Report No.: 73

Date:

#### 1. **Details To Be Noted:**

On Monday August 14, 2017 ALL-TECH Environmental Services Ltd. conducted final inspection and air clearance monitoring for the work enclosure of the 1A2 stairwell / balcony.

At the time of the inspection, all materials were removed from the work area and the work are was completed to standards.

Three (3) final clearance samples were collected in the work enclosure. At the completion the consultant analyzed all samples and it was found that airborne fibre levels were acceptable and the contractor was notified to start dismantling the work enclosure. Air monitoring results can be found in section 2 below...

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-018	11:44 (am)	65	12	R-4	780	1A2 Enclosure stairwell *Final Clearance	0.002
√D-019	11:45 (am)	63	12	R-2	756	1A2 Enclosure balcony *Final Clearance	ND
√D-020	11:46 (am)	63	12	R-3	756	1A2 Enclosure stairwell *Final Clearance	< 0.001

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Larry Koughan, CET, CRSP

cc Kevin Kennedy DTIE

lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: August 11, 2017

Project No.: PE7056

Location: 1A2 Main Entrance

Report No.: 72

#### 1. Details To Be Noted:

On Friday August 11, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure as well as perimeter sampling for sections 1B4

During the inspection it was noted that all barriers were in place and a deacon was fully setup and functional. Proper negative Air Pressure was attained during the time of inspection. Workers commenced asbestos abatement on the ceiling tiles within the morning.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-013	12:40 (pm)	60	12	R-3	720	West Side Stairwell Fire Exit *Clearance Sample	N/D

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Neal Millman, CET

Neal mille



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: August 8, 2017

Project No.: PE7056 Location: 1CA Stairwell

Report No.: 70

#### 1. Details To Be Noted:

On Tuesday August 8, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for sections

During the inspection it was noted that workers had completed asbestos abatement within 1CA Stairwell. In addition workers were removing ducting that contains asbestos containing compound.

One (1) perimeter samples as well as one (1) clearance sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-011	8:40 (am)	108	12	R-3	1,296	Outside Stairwell 1CA Enclosure *Perimeter Sample	0.001
√D-011	8:46 (am)	111	12	R-2	1,332	1CA Enclosure *Clearance Sample	0.001

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

Penetrations Observed	NO

Repairs Required	NO
Prompt Response	N/A

2

## 4. Negative Air Pressure

Number of Units Operating Effectively	1
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Jody MacIntyre APM

Gerald Maccormack	TOSH	



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: August 7, 2017

Project No.: PE7056 Location: Multiple Report No.: 69

#### 1. Details To Be Noted:

On Monday August 7, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for sections

During the inspection it was noted that workers had completed asbestos abatement within Electrical Room 317.In addition workers were performing setup within the 1CA Stairwell.

One (1) perimeter samples as well as one (1) clearance sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-009	9:01 (am)	121	12	R-2	1,452	Room 317 Electrical Room *Clearance Sample	0.002
νD-010	9:02 (am)	118	12	R-3	1,416	Outside Room 317 Electrical Room * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

Penetrations Observed	NO

Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	1
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

CC	Kevin Kennedy	DTIE
	Ian Harper	APM
	Pat Ramsay	APM
	Jody MacIntyre	APM

Gerald Maccormack	TOSH	



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August 4, 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: Multiple C1A 7N8 Report No.: 68

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Friday August 4, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1C2 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that workers had finished the 400 Block stairwell enclosure and was removing ducting in the upper level. In addition workers were removing asbestos containing ceiling tile and pipe parging from the electrical room 317.

Two (2) perimeter samples as well as one (1) clearance sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-006	11:30 (am)	122	12	R-2	1,461	Outside 400 Block Stairwell *Perimeter Sample	N/D
√D-007	12:35 (am)	99	12	R-3	1,188	400 Blocks Stairwell *Clearance Sample	0.002
√D-008	1:33 (am)	88	15	A-111	1,320	Outside 317 Electrical Room *Perimeter Sample	0.003

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	1
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

cc Kevin Kennedy DTIE

lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Da

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: August 3, 2017

Project No.: PE7056 Location: Multiple

Report No.: 67

#### 1. Details To Be Noted:

On Thursday August 3, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1C2 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that workers had finished the stairwell enclosure and was removing ducting in the lower level. In addition workers were performing setup on the adjacent stairway to perform asbestos abatement on ceiling tile.

One (1) perimeter samples as well as one (1) clearance sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-001	9:02 (am)	62	12	R-3	744	Outside Stairwell *Perimeter Sample	N/D
√D-002	9:05 (am)	61	12	R-2	732	Stairwell *Clearance Sample	0.001

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

Penetrations Observed	NO

Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	1
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

CC	Kevin Kennedy	DTIE
	Ian Harper	APM
	Pat Ramsay	APM
	Jody MacIntyre	APM

Gerald Maccormack	TOSH	



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Da

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

1.

Attn: Tyler Richardson

Date: August 2, 2017

Project No.: PE7056 Location: Multiple Report No.: 65

# Details To Be Noted:

On Wednesday, August 2, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1C2 and conducted perimeter sampling for airborne asbestos fibres. .

During the inspection it was noted that workers had finished the main lobby enclosure, room 623 (adjacent to lan room), as well as a storage room within the kitchen. Workers were noted setting up within the stairway to perform asbestos abatement on the ceiling tiles.

One (3) perimeter samples as well as three (3) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-297	7:30 (am)	41	12	R-3	492	Main Lobby Enclosure *Clearance Sample	0.003
√D-300	7:31 (am)	39	12	R-2	468	Outside Main Lobby Enclosure (by entrance) *Perimeter Sample	N/D
√D-298	8:10 (am)	45	15	A-111	675	Outside Room 623 Enclosure *Perimeter Sample	N/D
√D-297	8:11 (am)	44	12	R-3	528	Room 623 (adjacent to Lan Room) *Clearance Sample	0.001
√D-300	8:11 (am)	44	12	R-3	528	Room 623 (adjacent to Lan Room) *Clearance Sample	N/D
√D-299	9:05 (am)	38	15	A-111	570	Main Kitchen *Perimeter Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

#### 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Jody MacIntyre APM
Gerald Maccormack TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: August 1, 2017

Project No.: PE7056

Location: Front Entrance Lobby Area

Report No.: 65

#### 1. Details To Be Noted:

On Tuesday, August 1, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 1C2 and conducted perimeter sampling for airborne asbestos fibres.

During the inspection it was noted that the enclosure had all barriers in place with a total of 5 negative units. It was noted that the negative air pressure was reading -0.022" H<sub>2</sub>O. Workers commenced work, removing asbestos containing ceiling tile within the enclosure.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-296	1:02 (pm)	88	12	R-3	1056	Outside Enclosure *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
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July 29, 2017

PE7056

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

Date: P.O. Box 2000 Project No.:

Charlottetown, PEI Location: Main Entrance Stairwell

C1A 7N8 Report No.: 64

Attn: Tyler Richardson

#### 1. **Details To Be Noted:**

On Saturday, July 29, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter and clearance samples for airborne asbestos fibres. .

During the inspection it was noted that workers finished completing asbestos abatement of ceiling tile within the stairwell near the main entrance. No debris was inspected on the floor within the enclosure and signs of lock down solution was noted.

two (2) negative air units were operating within the enclosure.

One (1) perimeter sample as well as one (1) clearance sample were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-295	9:32 (am)	55	12	R-3	660	Outside Enclosure *Perimeter Sample	N/D
√D-294	9:35 (am)	54	12	R-2	648	Main Entrance Stairwell Area *Perimeter Sample	0.001

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter."

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

cc Kevin Kennedy DTIE Ian Harper APM

Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM TOSH



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July 28, 2017

PE7056

63

Report No.:

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

Date: P.O. Box 2000 Project No.:

Charlottetown, PEI Location: Multiple Locations

C1A 7N8

1.

Attn: Tyler Richardson

## **Details To Be Noted:**

On Friday, July 28, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter and clearance samples for airborne asbestos fibres. .

During the inspection it was noted that workers were setting up an enclosure within 1A2 (stairway and lower level landing). Workers were setting up negative air units and polyethylene sheeting. Inspections occurred and workers commenced asbestos abatement in the area.

In addition, abatement was completed within the Student Services area.

Two (2) negative air units were operating within the enclosure.

One (1) perimeter sample as well as one (1) clearance sample were collected during today's shift. Results can be found in section 2.

Refer to sections 2 - 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-275	8:02 (am)	60	12	R-3	720	Student Services Area *Clearance Sample	0.002
√D-286	11:23 (am)	93	12	R-2	696	Outside Conference Room *Perimeter Sample	N/D
√D-277	11:25 (am)	99	12	R-2	1188	Conference Room *Clearance Sample	0.003

None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,



Cons	sultant:		
		Ken P	arsons, GSC
CC	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccorr	/	DTIE APM APM APM TOSH



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 27, 2017 Project No.: PE7056

Location: 2C1 Block

Report No.: 62

#### 1. Details To Be Noted:

On Thursday, July 27, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter and clearance samples for airborne asbestos fibres.

During the inspection it was noted that workers were removing asbestos containing ceiling within the Student Service area. Workers were observed removing ceiling tile and spray amended water during the removal.

Two (2) negative air units were operating within the enclosure.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-278	11:21 (am)	92	12	R-3	1104	Outside Student Service Room *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

Penetrations Observed	NO
Repairs Required	NO

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
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Gerald Maccormack TOSH





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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

July 26, 2017 P.O. Box 2000 Project No.: PE7056 2C1 Block Charlottetown, PEI Location: Report No.: 61

C1A 7N8

Attn: Tyler Richardson

#### 1. **Details To Be Noted:**

On Wednesday July 26, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter and clearance samples for airborne asbestos fibres...

During the inspection it was noted that workers were working within office in the Student Service area. Workers were observed removing asbestos containing ceiling tile and placing the tile within double bags.

Six (4) negative air units were operating within the enclosure.

One (2) clearance samples as well as one (1) perimeter sample were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-271	10:58 (am)	52	12	R-2	624	Room 315(a) *Clearance Sample	0.001
√D-272	10:59 (am)	57	12	R-3	684	Room 315(e) *Clearance Sample	N/D
√D-273	11:06 (am)	51	15	A-111	765	Outside Student Services Area  *Perimeter Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	4 (different locations)
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

СС	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	DTIE APM APM APM TOSH



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Email: <u>Ikoughan @toalltech.com</u>

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 25, 2017 Project No.: PE7056

Location: 2C1 Block

Report No.: 60

#### 1. Details To Be Noted:

On Tuesday, July 25, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter and clearance samples for airborne asbestos fibres. .

During the inspection it was noted that no debris was on the ground. Signs of wet wiping and lock down solution was also inspected. No ceiling tile was noted within the enclosure and all asbestos containing bags were removed.

Six (6) negative air units were operating within the enclosure.

One (1) perimeter sample as well as four (4) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-267	9:06 (am)	49	12	R-2	588	2 <sup>nd</sup> Level Outside Enclosure (2C1) *Perimeter Sample	N/D
√D-268	9:20 (am)	48	12	R-3	576	Corridor Outside 404 (2C1) *Clearance Sample	0.001
√D-269	9:25 (am)	42	15	A-111	504	Corridor Outside 416 (2C1) *Clearance Sample	N/D
√D-287	9:52 (am)	43	12	R-2	516	Room 408 (2C1) *Clearance Sample	0.002
√D-286	9:59 (am)	41	12	R-3	492	Corridor Central (2C1) *Clearance Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

#### 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Jody MacIntyre APM
Gerald Maccormack TOSH



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Email: <u>Ikoughan @toalltech.com</u>

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 24, 2017 Project No.: PE7056

Location: 2C1 Block

Report No.: 59

#### 1. Details To Be Noted:

On Monday, July 24, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter samples for airborne asbestos fibres.

During the daily inspection it was noted that the contractor was completing cleanup duties within the 2C1 enclosure using HEPA Vacuums and wet wiping techniques.

Six (6) negative air units were operating within the enclosure.

One (1) perimeter samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-265	1:00pm (pm)	120	12	R-2	1440	2 <sup>nd</sup> Level Outside Enclosure (2C1) *Perimeter Sample	0.001

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

Penetrations Observed	NO

Repairs Required	NO
Prompt Response	N/A

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC

CC	Kevin Kennedy	DTIE	
	lan Harper	APM	
	Pat Ramsay	APM	
	Jody MacIntyre	APM	

Gerald Maccormack	TOSH	



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 21, 2017 Project No.: PE7056

Location: 2C1 & 300 Block

Report No.: 58

#### 1. Details To Be Noted:

On Friday July 21, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter samples for airborne asbestos fibres. In addition an incident was reviewed in Room 214 where an asbestos ceiling tile was removed by an on-site contractor.

Late Thursday afternoon, it was reported by TOSH janitorial staff that a worker from East Coast Sheet Metal was spotted and reported removing an asbestos containing ceiling tile in Room 214. APM's representative Jody MacIntyre contacted ALL-TECH to report the incident and ALL-TECH coordinated to review the area in the morning.

Upon reviewing the area during this morning's shift where the tile was removed, some debris was on the floor that appeared to be from the ceiling tile. Marenco was also present and was instructed to put up barriers to prevent others from entering and to conduct a clean-up of the debris on the floor using HEPA vacuum. Before that was completed ALL-TECH collected a sample for airborne asbestos fibres in the area to evaluate present conditions. The sampling came back acceptable for the test period so Marenco workers then completed the clean-up of the affected area below where the tile was removed.

During the daily inspection of the asbestos work enclosure for unit 2C1, it was noted that the contractor was completing the removal of ACM ceiling tiles within the enclosure during the test period. Six (6) negative air units were operating within the enclosure.

In addition the contractor was engaged to remove 4 ceiling tiles in Block 300 corridor. After the removal of the ceiling tiles a final clearance air sample was collected in the work area.

Air sampling results can be found in section 2.

Refer to sections 3 - 9 for daily inspection checklist.

#### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-257	9:39 (am)	48	12	R-1	576	Room 214 *Environmental Background	0.002

√D-258	9:43 (am)	56	12	R-3	672	2 <sup>nd</sup> Level Outside Enclosure (2C1) *Perimeter Sample	N/D
√D-259	10:30 (am)	57	12	R-1	684	Block 300 Corridor outside Rm 307 *Final Clearance	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

#### 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Larry Koughan, CET, CRSP

Branch Manager



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Location: 2C1 & 400 Block

C1A 7N8

1.

Attn: Tyler Richardson

Date: July 20, 2017 Project No.: PE7056

Report No.: 57

# Details To Be Noted:

On Thursday, July 20, 2017 ALL-TECH Environmental Services Ltd. conducted inspections of the work enclosure for section 2C1 and collected perimeter samples for airborne asbestos fibres.

During the daily inspection it was noted that the contractor was completing the removal of ACM ceiling tiles within the enclosure and would be double bagging materials in the afternoon shift.

Six (6) negative air units were operating within the enclosure.

Two (2) perimeter samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-255	10:10 (am)	55	12	R-2	660	2 <sup>nd</sup> Level Outside Enclosure (2C1) *Perimeter Sample	N/D
√D-256	10:15 (am)	52	12	R-3	624	Main Floor (1C1) below enclosure *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

# 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	Consultant ALL-TECH Environmental	

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Larry Koughan, CET, CRSP

cc Kevin Kennedy DTIE

lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

2C1 & 400 Block Charlottetown, PEI Location:

C1A 7N8

Attn: Tyler Richardson

July 19<sup>th</sup>, 2017 Date: Project No.: PE7056

Report No.: 56

#### 1. **Details To Be Noted:**

On Wednesday, July 19th, 2017 ALL-TECH Environmental Services Ltd. conducted inspections, perimeter, and clearance sampling during today's shift.

On arrival workers were removing asbestos containing ceiling tile within Block 100 in the second level. Workers were noted using amended water at the time of inspection.

In addition workers removed asbestos containing hardboard from the exterior on the previous day from 5 windows.

Six (6) negative air units were operating and proper negative pressure was attained.

Two (1) perimeter sample and two (2) clearance samples were collected during today's shift. Results can be found in section

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-697	1:30 (pm)	66	12	R-2	792	2 <sup>nd</sup> Level Outside Enclosure (2C1) *Perimeter Sample	N/D
√C-698	1:34 (pm)	64	12	R-3	768	2 <sup>nd</sup> Level Window Room 421 *Clearance Sample	N/D
√C-699	1:33 (pm)	61	15	A-111	915	2 <sup>nd</sup> Level Window Room 422 *Clearance Sample	N/D

None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	-0.020" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC

HSE Consultant

ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>lkoughan@toalltech.com</u>

July 18<sup>th</sup>, 2017

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: 2C1 C1A 7N8 Report No.: 55

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Tuesday, July 18<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections and perimeter sampling during today's shift.

On arrival workers were removing asbestos containing ceiling tile within Block 2C1 in the second level. Workers were noted removing pipe fittings and placing double bagged asbestos content in a room within the enclosure.

Six (6) negative air units were operating and proper negative pressure was attained.

One (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-693	1:20 (pm)	130	12	R-2	1560	2 <sup>nd</sup> Level Outside Enclosure (2C1) *Perimeter Sample	0.001

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO

Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	-0.020" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

# 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor Marenco		8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC

**HSE Consultant** 

ALL-TECH Environmental Services Limited

СС	Kovin Konnody	DTIE
	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI C1A 7N8

Attn: Tyler Richardson

Date: July 17<sup>th</sup>, 2017

Project No.: PE7056 Location: 2C1 Report No.: 54

#### 1. Details To Be Noted:

On Monday, July 17<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections and perimeter sampling during today's shift.

On arrival workers were performing setup within area 2C1. Workers were running hose lines to Negative air units. In additional workers were setting up a deacon and shower. Inspections carried out in the afternoon and the contractor was approved to start abatement tomorrow July, 18<sup>th</sup>, 2017.

Six (6) negative air units were operating and proper negative pressure was attained.

Sampling was not conducted due to no asbestos abatement activities.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. Air Monitoring Results:

Number Co	ime of Sample Duration (Min.)	Flow Pur Rate ID (L/m)	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
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#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

#### 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	-0.024" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	N/A
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	N/A
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	N/A

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 



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Email: Ikoughan @toalltech.com

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

July 13<sup>th</sup>, 2017 Project No.: PE7056 P.O. Box 2000

2<sup>nd</sup> Level Block 400 Charlottetown, PEI Location:

C1A 7N8 Report No.: 53

Attn: Tyler Richardson

#### 1. **Details To Be Noted:**

On Thursday, July 13<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections, perimeter, and clearance sampling during today's shift.

On arrival workers were noted HEPA vacuuming and removing double bagged asbestos containing bags from the enclosure. All bags were removed and Lockdown Solution was applied within the enclosure in the morning.

Worker were also noted setting up and concluding asbestos abatement within room 505. Minimal asbestos containg ceiling tile was removed within the room for electrical purposes.

Six (6) negative air units were operating and proper negative pressure was attained.

Two (1) perimeter sample and four (4) clearance samples were collected during today's shift. Results can be found in section

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-684	2:35 (pm)	55	12	R-2	660	2 <sup>nd</sup> Outside Block 400 (adjacent to stairwell) *Clearance Sample	0.002
vC-683	2:36 (pm)	54	12	R-3	648	2 <sup>nd</sup> Outside Block 400 (central area) *Clearance Sample	0.001
√C-684	2:37 (pm)	51	15	A-111	765	2 <sup>nd</sup> Outside Block 400 (adjacent to enclosure entrance) *Clearance Sample	N/D
√C-687	3:15 (pm)	45	12	R-2	540	Outside Room 505 *Perimeter Sample	N/D
νC-688	3:34 (pm)	42	15	A-111	756	Room 505 *Clearance Sample	0.001

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	-0.021" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC

**HSE Consultant** 

ALL-TECH Environmental Services Limited



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 12<sup>h</sup>, 2017

Project No.: PE7056

Location: 2<sup>nd</sup> Level Block 400

Report No.: 52

#### 1. Details To Be Noted:

On Wednesday, July 12<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections and perimeter, and clearance sampling during today's shift.

On arrival workers were removing asbestos containing ceiling tile within Block 400 in the second level. Workers were also noted in the afternoon HEPA vacuuming and removing double bagged asbestos containing bags from the enclosure.

Six (6) negative air units were operating and proper negative pressure was attained.

Two (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-682	2:00 (pm)	90	12	R-2	1080	2 <sup>nd</sup> Outside Block 400 *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO

4	Negative	Air	Pressure

Prompt Response

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	-0.023" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

N/A

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

# 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 

СС	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	DTIE APM APM APM TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

2<sup>nd</sup> Level Block 400 Charlottetown, PEI Location:

C1A 7N8

Attn: Tyler Richardson

July 11<sup>h</sup>, 2017 Date: Project No.: PE7056

Report No.: 51

#### 1. **Details To Be Noted:**

On Tuesday, July 11th, 2017 ALL-TECH Environmental Services Ltd. conducted inspections, perimeter, and clearance sampling during today's shift.

On arrival workers were removing asbestos containing ceiling tile within Block 400 in the second level. Workers were noted using amended water at the time of inspection. During the removal workers were placing ceiling tiles within asbestos containing bags.

In addition workers removed asbestos containing hardboard from the exterior on the previous day.

Six (6) negative air units were operating and proper negative pressure was attained.

Two (2) perimeter samples and two (2) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 - 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-669	11:40 (am)	61	12	R-2	732	2 <sup>nd</sup> Level Window (stairwell) Block 300 *Clearance Sample	N/D
√C-675	12:20 (am)	75	12	R-3	900	2 <sup>nd</sup> Level Lobby Area *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is

primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	-0.024" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

#### **Consultant:**



Ken Parsons, GSC

HSE Consultant

ALL-TECH Environmental Services Limited



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Email: <u>Ikoughan@toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 10<sup>th</sup>, 2017

Project No.: PE7056

Location: 2<sup>nd</sup> Level Block 400

Report No.: 50

#### 1. Details To Be Noted:

On Monday, July 10<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections prior to work commence on the 2<sup>nd</sup> level in the 400 block.

On arrival workers were observed setting up negative air units within the enclosure. In addition workers were hooking up shower within the decan. Inspections were carried on the enclosure and work will commenced tomorrow July 11<sup>th</sup>, 2017.

Six (6) negative air units were operating and proper negative pressure was attained.

No Type 3 asbestos work was performed during today's shift.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample	Time of	Sample	Flow	Pump	Sample	Sample Location /	Reported
Number	Collection	Duration	Rate	ID.	Volume	*Sample Description	Results
	(am/pm)	(Min.)	(L/m)		(Litres)		(f/cc)
	(4111)	()	(=//		(2.1.1.00)		(1,00)

# 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	-0.024" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	N/A
Disposable Coveralls	N/A
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	N/A

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC **HSE Consultant** 

**ALL-TECH Environmental Services Limited** 

Kevin Kennedy DTIE CC Ian Harper **APM** Pat Ramsay APM APM APM Jody MacIntyre Gerald Maccormack TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 8<sup>h</sup>, 2017 Project No.: PE7056

Location: Main Entrance & 2<sup>nd</sup> Level Lobby

Report No.: 49

#### 1. Details To Be Noted:

On Saturday, July 8<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections, perimeter, and clearance sampling during today's shift.

On arrival workers finished removing asbestos containing ceiling tile within the main entrance lobby area. In addition workers were removing ceiling tile on the 2<sup>nd</sup> level lobby area. Workers were noted using amended water during inspections and double bagging ceiling tile. All double bags were removed from the enclosures and lockdown solution was applied prior to final clearance.

One (1) negative air units were operating and proper negative pressure was attained.

Two (2) perimeter samples and two (2) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
νC-672	11:05 (am)	62	12	R-2	744	Main Entrance Lobby *Perimeter Sample	N/D
νC-673	11:07 (am)	55	12	R-3	660	Main Entrance Lobby Enclosure *Clearance Sample	0.003
√C-674	12:40 (am)	49	12	R-2	744	Main Level (outside 2 <sup>nd</sup> level enclosure) *Perimeter Sample	N/D
νC-675	12:55 (am)	48	12	R-3	660	2 <sup>nd</sup> Level Encosure *Clearance Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	-0.020" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC HSE Consultant

ALL-TECH Environmental Services Limited



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

July 7<sup>th</sup>, 2017 Date: P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: 1B3 and 1B4 Report No.: 48

C1A 7N8

Attn: Tyler Richardson

#### 1. **Details To Be Noted:**

On Friday, July 7<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections, perimeter, and clearance sampling during today's shift. On arrival, final inspections were completed for 1B3 and 1B4

No visible debris was inspection on the floor, all ceiling tile and parging was removed. Signs of lockdown solution was noted during the inspection.

Five (5) negative air units were operating and proper negative pressure was attained.

Three (3) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-664	10:30 (am)	82	12	R-2	984	Room 206 *Clearance Sample	0.001
√C-660	10:32 (am)	80	12	R-3	960	Room 202 *Perimeter Sample	N/D
νC-663	10:35 (am)	72	15	A-111	1800	Corridor *Perimeter Sample	0.002

None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 m.

The above noted samples were analyzed using the NIOSH 7400 Method. (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter."

# 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	-0.020" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

# 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

Consultant:

Ken Parsons, GSC HSE Consultant

## ALL-TECH Environmental Services Limited



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Email: <u>Ikoughan @toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 5<sup>th</sup>, 2017 Project No.: PE7056

Location: 1B3 and 1B4

Report No.: 46

#### 1. Details To Be Noted:

On Wednesday, July 5<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections, perimeter, and clearance sampling during today's shift. On arrival, workers were observed removing asbestos containing ceiling tile from area's 1B3 and 1B4.

In addition, workers removed asbestos containing ceiling tile within room 315e.

Workers also completed the removal of asbestos containing hardboard from the exterior on three (3) windows in rooms 408, 407, and 406.

Five (5) negative air units were operating and proper negative pressure was attained.

Two (2) perimeter samples as well as four (4) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-398	11:05 (am)	55	12	R-3	660	Lower Level Adjacent To Elevator *Perimeter Sample	N/D
√C-393	12:00 (pm)	45	12	R-2	540	Outside Room 315e *Perimeter Sample	N/D
√C-394	12:10 (pm)	40	15	A-111	600	315e *Clearance Sample	0.001
√C-397	3:06 (pm)	45	15	A-111	675	Room 408 (window) *Clearance Sample	N/D
√C-395	3:07 (pm)	44	12	R-3	528	Room 407 (window) *Clearance Sample	N/D
√C-399	3:09	44	12	R-2	528	Room 406 (window) *Clearance Sample	N/D

(pm)						
ND None Detected						
√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)   During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm						
cellulose ester sampling cassettes with a pore size of $0.8\mu$ m. The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres $< 0.25\mu$ m in diameter."						
3. Site Conditions (Enclosures)						
Penetrations Observed	NO					
Repairs Required	NO					
Prompt Response	N/A					
4. Negative Air Pressure						
Number of Units Operating Effectively	5					
Minimum -0.02" H <sub>2</sub> O Maintained	-0.024" H <sub>2</sub> O					
Filters Inspected and Changed as Required	YES					
5. Personal Protective Equipment						
Powered Air Purifying Respirators with HEPA Filters	YES					
Disposable Coveralls	YES					
CSA Safety Boots	YES					
6. Dust Control						
Wet Wiping Techniques	YES					
Amended Water	V					
Negative Air Filtration	YES					
7. Waste Management						
Waste properly double bagged before leaving site	YES					
Waste transfer manifest documentation	YES					
8. Work Site Cleanliness						
General House Keeping	GOOD					
ACM bagged as work progresses YES						
9. Number of Workers On-Site						
Asbestos Abatement Contractor Marenco 8						

3

Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC HSE Consultant

ALL-TECH Environmental Services Limited



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 6<sup>th</sup>, 2017 Project No.: PE7056

Location: 1B3 and 1B4

Report No.: 47

#### 1. Details To Be Noted:

On Thursday, July 6<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections and perimeter sampling during today's shift. On arrival, workers were observed removing asbestos containing ceiling tile as well as pipe parging from area's 1B3 and 1B4.

In the afternoon it was noted that workers were removing asbestos doubled bags out of the enclosure to a container.

Five (5) negative air units were operating and proper negative pressure was attained.

Two (2) perimeter samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
vC-665	11:05 (am)	60	12	R-2	720	Lower Level Outside Enclosure *Perimeter Sample	N/D
√C-666	1:32 (pm)	34	15	A-111 510 Main Level Corridor (during bag out) *Perimeter Sample		0.005	

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

# 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	5	
Minimum -0.02" H <sub>2</sub> O Maintained	-0.021" H <sub>2</sub> O	
Filters Inspected and Changed as Required	YES	

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

# 8. Work Site Cleanliness

General House Keeping	GOOD	
ACM bagged as work progresses	YES	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 

СС	Kayin Kannady	DTIE
	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM
	Pat Ramsay Jody MacIntyre	APM APM
	Gerald Maccormack	TOSH



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: July 4<sup>th</sup>, 2017 Project No.: PE7056

Location: 1B3 and 1B4

Report No.: 45

#### 1. Details To Be Noted:

On Tuesday, July 4<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections during today's shift. On arrival, the contractor was performing setup for area's 1B3 and 1B4.

The workers were noted setting up negative air units as well as a shower for the deacon. Work area inspections were carried out at the end of the work day and the contractor is going to commence asbestos activities Wednesday, July 4<sup>th</sup>, 2017.

In addition workers were noted removing asbestos containing hardboard from the exterior around the window.

Five (5) negative air units were operating and proper negative pressure was attained within the enclosure.

No asbestos abatement activities were noted at the time of visit, sampling was not completed during today's shift.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
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### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	-0.023" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	N/A
Disposable Coveralls	N/A
CSA Safety Boots	YES

### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	N/A
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	N/A

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	N/A

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC

**HSE Consultant** 

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: Ikoughan @toalltech.com

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

1B3, 1B4, 1B5, 1B6 Charlottetown, PEI Location:

C1A 7N8

Attn: Tyler Richardson

June 30<sup>th</sup>, 2017 Project No.: PE7056

Report No.:

#### 1. **Details To Be Noted:**

On Friday, June 30th, 2017 ALL-TECH Environmental Services Ltd. conducted inspections and clearance sampling during today's shift. On arrival, final inspection and clearance sampling was completed for areas 1B3, 1B4, 1B5, and 1B6. Evidence of lockdown solution was noted within the enclosure. No debris was noted on the ground work area and the area was inspected clean. Six (6) clearance samples were collected for area's 1B3, 1B4, 1B5, and 1B6.

In addition workers were noted performing setup and removal of asbestos containing hardboard from the exterior. Three (3) clearance samples were collected in the afternoon from rooms 409, 410, and 411.

Eight (8) negative air units were operating and proper negative pressure was attained within the enclosure prior to clearance sampling.

Nine (9) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-382	10:37 (am)	48	12	R-3	576	Library (north) *Clearance Sample	0.003
νC-381	10:39 (am)	45	12	R-2	540	Library (south) *Clearance Sample	0.001
√C-380	10:42 (am)	46	15	A-111	690	Landing Adjacent to Cafeteria *Clearance Sample	N/D
√C-384	11:38 (am)	50	15	A-111	750	Theatre *Clearance Sample	0.004
√C-383	11:40 (am)	52	12	R-3	624	Corridor Outside Theatre *Clearance Sample	0.001
√C-376	11:48 (am)	54	12	R-2	648	Library (north) *Clearance Sample	0.002
√C-375	12:42	41	12	R-2	401	Room 411 (window)	N/D

	(pm)					*Clearance Sample	
√C-386	12:43 (pm)	42	12	R-3	504	Room 410 (window) *Clearance Sample	N/D
√C-389	12:49 (pm)	44	15	A-111	660	Room 409 (window) *Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	-0.021" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

June 29<sup>th</sup>, 2017

Project No.: PE7056

41

Report No.:

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

P.O. Box 2000

Charlottetown, PEI Location: 1B3, 1B4, 1B5, 1B6

C1A 7N8

1.

Attn: Tyler Richardson

## Details To Be Noted:

On Thursday, June 29<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections and perimeter sampling during today's shift. On arrival, the contractor was performing bag out duties of doubled bagged asbestos containing materials. All bags were removed from the enclosure and a container was filled to capacity. Workers were also noted using HEPA vacuums and performing wet wiping procedures within the enclosure.

Eight (8) negative air units were operating and proper negative pressure was attained within the enclosure.

Two (2) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-372	11:05 (am)	60	12	R-3	720	First Floor Cafeteria Outside Enclosure *Perimeter Sample	N/D
√C-733	11:08 (am)	62	15	A-111	930	Lower Level Adjacent to Enclosure Entrance *Perimeter Sample	0.003

ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	-0.020" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,



Const	H	en Parsons, GSC SE Consultant LL-TECH Environmental Services L	imited	
СС	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccorma	DTIE APM APM APM ck TOSH		



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan@toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

P.O. Box 2000

Charlottetown, PEI Location: 1B3, 1B4, 1B5, 1B6

C1A 7N8

Attn: Tyler Richardson

Project No.: PE7056

June 28<sup>th</sup>, 2017

Report No.: 42

### 1. Details To Be Noted:

On Wednesday, June 28<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections, perimeter, and clearance sampling during today's shift. On arrival, the contractor continued removing asbestos containing pipe fittings in a type 3 enclosure. Workers were observed using amended water during the removal and good housekeeping was noted. The contractor had changed negative air unit filters as required. Eight (8) negative air units were operating and proper negative pressure was attained within the enclosure.

In addition, workers removed asbestos containing hardboard from the exterior. Windows within room 420 and 412 were removed and the hardboard was abated; wrapped with polyethylene sheeting and placed in a bin.

One (1) perimeter sample was collected during today's shift as well as two (2) clearance samples. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
vC-370	11:08 (am)	90	15	A-111	1350	First Floor Cafeteria Outside Enclosure *Perimeter Sample	0.001
√C-748	1:00 (pm)	100	12	R-3	1200	Second Level Room 412 (window) *Clearance Sample	N/D
√C-734	1:08 (pm)	98	12	R-4	1176	Second Level Room 420 (window) *Clearance Sample	N/D

ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	-0.021" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Respectfully submitted,

**Consultant:** 

Ken Parsons, GSC

HSE Consultant

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan@toalltech.com</u>

June 27<sup>th</sup>, 2017

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: 1B3, 1B4, 1B5, 1B6

C1A 7N8 Report No.: 41

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Tuesday, June 27<sup>th</sup>, 2017 ALL-TECH consultant Ken Parsons conducted inspections, perimeter, and final clearance sampling during today's shift. On arrival, the contractor was removing asbestos containing fittings within the corridor inside the enclosure. Workers were also noted removing asbestos containing ceiling tile. During the inspection it was noted that almost all ceiling tile has been removed from the work area.

In addition, workers had completed removing asbestos containing hardboard from the exterior window at Block 400.

One (1) final clearance sample as well as one (1) perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-428	1:35 (am)	90	15	A-111	1350	Second Level Block 400 Stairway * Final Clearance Sample	0.003
√C-362	2:01 (pm)	90	12	R-3	1080	Cafeteria * Perimeter Sample	0.002

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	-0.022" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Sincerely,

Ken Parsons
Environmental Technologist
ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan@toalltech.com</u>

June 26<sup>th</sup>, 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

P.O. Box 2000 Project No.: PE7056
Charlottetown, PEI Location: 1B1 – 1B3
C1A 7N8 Report No.: 40

Attack Table a Diale and a sec

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Monday, June 26<sup>th</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections and perimeter sampling during today's shift. On arrival, the contractor started abatement activates of removing asbestos containing ceiling tile on the first floor enclosure areas 1B1 – 1B3.

Two (2) perimeter samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
νC-360	7:30 (am)	60	15	A-111	900	First Floor Area 1B3 corridor Outside Enclosure *Perimeter Sample	N/D
vC-361	9:00 (am)	60	15	A-111	900	First Floor Area 1B3 (Cafeteria) *Perimeter Sample	N/D

ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	-0.022" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Neal Mille

## Senior Environmental Consultant ALL-TECH Environmental Services Limited



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan @toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: June 23<sup>rd</sup>, 2017

Project No.: PE7056 Location: Library Report No.: 39

#### 1. Details To Be Noted:

On Friday, June 23<sup>rd</sup>, 2017 ALL-TECH Environmental Services Ltd. conducted inspections during today's shift. On arrival, the contractor was performing setup for abatement within the Library on the lower level. The contractor was noted setting up 8 negative air unit within the enclosure.

Two (2) perimeter samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Number C	Collection D	Ouration Ra	low Pump ate ID /m)	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
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## 3. Site Conditions (Enclosures)

Penetrations Observed	N/A
Repairs Required	N/A
Prompt Response	N/A

#### 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	N/A
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	N/A
Disposable Coveralls	N/A

CSA Safety Boots	YES
6. Dust Control	_
Wet Wiping Techniques	N/A
Amended Water	N/A
Negative Air Filtration	N/A

## 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	N/A

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	N/A

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Yours Very Truly,

**Consultant:** 

Patrick Crouse CET Environmental Technologist

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan@toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: June 21<sup>st</sup>, 2017

Project No.: PE7056 Location: 1A2 & 1B3

Report No.: 38

#### 1. Details To Be Noted:

On Wednesday, June 21<sup>st</sup>, 2017 ALL-TECH consultant Patrick Crouse conducted inspections and final clearance sampling during today's shift. On arrival, the contractor finished abatement activates of removing asbestos containing ceiling tile on the first and second floor enclosure areas 1B2 and 2B2.

Six (6) final clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
νC-367	12:00 (Pm)	47	15	R-3	705	Second Floor Area 2B2 corridor * Final Clearance Sample	0.003
vC-366	11:58 (Am)	47	15	R-1	705	Second Floor Area 1B2 Enclosure entrance * Final Clearance Sample	0.003
vC-365	11:55 (am)	45	12	R-2	540	Second Floor Area 1B2 in front of room 503 * Final Clearance Sample	0.002
vC-359	12:51 (Pm)	50	15	R-3	750	First Floor Area 1B2 corridor * Final Clearance Sample	0.003
vC-368	12:55 (Pm)	47	12	R-2	564	First Floor Area 1B2 near elevator * Final Clearance Sample	0.003
vC-369	12:53 (Pm)	47	15	R-1	705	First Floor Area 1B2 * Final Clearance Sample	0.001

ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	-0.028" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

#### 8. Work Site Cleanliness

General House Keeping	GOOD	
ACM bagged as work progresses	YES	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Sincerely,

Patrick Crouse CET

**Environmental Technologist** 

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: Ikoughan @toalltech.com

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

June 20<sup>th</sup>, 2017 P.O. Box 2000 Project No.: PE7056 1A2 & 1B3 Charlottetown, PEI Location: C1A 7N8 Report No.: 37

Attn: Tyler Richardson

#### 1. **Details To Be Noted:**

On Tuesday, June 20th, 2017 ALL-TECH consultant Patrick Crouse conducted inspections and perimeter sample during today's shift. On arrival, the contractor continued abatement activates of removing asbestos containing ceiling tile on the first and second floor enclosure areas 1B2 and 2B2.

Two (2) Perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-357	9:08 (am)	67	15	R-3	1005	First Floor Area 1B3 * Perimeter Sample	0.001
√C-358	9:14 (am)	61	12	R-2	915	First Floor Area 1A2 * Perimeter Sample	0.001

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 \mu m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	-0.028" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Sincerely,

Patrick Crouse CET

**Environmental Technologist** 

**ALL-TECH Environmental Services Limited** 



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>Ikoughan@toalltech.com</u>

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Da

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: June 19<sup>th</sup>, 2017

Project No.: PE7056 Location: 1B2 & 2B2

Report No.: 36

#### 1. Details To Be Noted:

On Monday, June 19<sup>th</sup>, 2017 ALL-TECH consultant Patrick Crouse conducted inspections and perimeter sample during today's shift. On arrival, the contractor started abatement activates removing asbestos containing ceiling tile on the second floor enclosure areas 1B2 and 2B2.

Two (2) Perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-354	9:24 (am)	45	12	R-2	540	Second Level Enclosure Entrance In front of Rm. 415 * Perimeter Sample	0.001
vC-356	10:18 (am)	45	12	R-2	540	Second Level In front of Rm. 501 * Perimeter Sample	0.001

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	-0.028" H <sub>2</sub> O
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	GOOD
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact our office at (902) 569-0172.

Sincerely,

Patrick Crouse CET

**Environmental Technologist** 

**ALL-TECH Environmental Services Limited** 



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Email: <u>lkoughan@toalltech.com</u>

June 16<sup>th</sup>, 2017

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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Date:

Report No.:

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056
Charlottetown, PEI Location: Main Level

C1A 7N8

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Tuesday, June 16<sup>th</sup>, 2017 ALL-TECH consultant Neal Millman conducted inspections and perimeter sample during today's shift. On arrival, the contractor started abatement activates removing asbestos containing ceiling tile on the main level Room 1B2 & 2B2.

One (1) Perimeter sample was collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-355	12:30 (pm)	40	15	A-111	600	Main Level Room 1B2 & 2B2 * Perimeter Sample	0.001

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter."

## 3. Site Conditions (Enclosures)

Penetrations Observed	No
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	5
Minimum -0.02" H <sub>2</sub> O Maintained	-0.028" H <sub>2</sub> O
Filters Inspected and Changed as Required	Yes

## **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	YES
CSA Safety Boots	YES

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	YES

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Mille

Neal Millman, CET

Senior Environmental Consultant

**ALL-TECH Environmental Services Limited** 



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Email: Ikoughan @toalltech.com

June 6<sup>th</sup>. 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056
Charlottetown, PEI Location: 2<sup>nd</sup> Level
C1A 7N8 Report No.: 34

Attn: Tyler Richardson

## 1. Details To Be Noted:

On Tuesday, June 6, 2017 ALL-TECH consultant Ken Parsons conducted inspections and final clearance during today's shift. On arrival, the contractor concluded abatement activates removing asbestos containing ceiling tile on the second level outside the elevator and up the stairway. The area was inspected with no debris on the ground and an adequate amount of lockdown solution was applied.

One (1) Perimeter sample was collected as well as one (1) clearance sample during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-352	6:03 (pm)	30	15	A-11	450	2 <sup>nd</sup> Level Outside Elevator * Clearance Sample	0.001
√C-353	6:04 (pm)	30	15	A-111	450	2 <sup>nd</sup> Level Outside Enclosure * Perimeter Sample	N/D

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

### 3. Site Conditions (Enclosures)

No Penetrations Observed	Yes
Repairs Required	NO

Prompt Response  4. Negative Air Pressure	NO NO
Number of Units Operating Effectively  Minimum -0.02" H <sub>2</sub> O Maintained  Filters Inspected and Changed as Required	N/A N/A N/A

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	3
Project Consultant ALL-TECH Environmental		1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE

lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

June 5<sup>th</sup>. 2017 Date: PE7056 P.O. Box 2000 Project No.: Charlottetown, PEI Location: Lower Level C1A 7N8 Report No.: 33

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

On Monday, June 4, 2017 ALL-TECH consultant Ken Parsons conducted inspections and final clearance during today's shift. On arrival, the contractor concluded abatement activates removing asbestos containing ceiling tile within the lower level outside the elevator and stairs. The area was inspected with no debris on the ground and an adequate amount of lockdown solution was applied.

One (1) Perimeter sample was collected as well as one (1) clearance sample during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
vC-350	6:50 (pm)	30	15	A-11	450	Lower Level Outside Elevator * Clearance Sample	0.001
vC-351	6:53 (pm)	30	15	A-111	Lower Level Outside Enclosure  * Perimeter Sample		N/D

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 \mu m in diameter."

#### 3. Site Conditions (Enclosures)

No Penetrations Observed	Yes
Repairs Required	NO

Prompt Response	NO 2
4. Negative Air Pressure	
Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	N/A
Filters Inspected and Changed as Required	N/A

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES	
Disposable Coveralls	V	
CSA Safety Boots	V	

## 6. Dust Control

Wet Wiping Techniques	YES	
Amended Water	V	
Negative Air Filtration	YES	

## 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	3
Project Consultant ALL-TECH Environmental		1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE

lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



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June 4<sup>th</sup>. 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056
Charlottetown, PEI Location: Multi areas

C1A 7N8 Report No.: 32

Attn: Tyler Richardson

### 1. Details To Be Noted:

On Sunday, June 4, 2017 ALL-TECH consultant Ken Parsons conducted inspections and final clearance during today's shift. On arrival, the contractor concluded abatement activates within the 2<sup>nd</sup> level staff bathroom as well as the main student entrance area. The area was inspected with no debris on the ground and an adequate amount of lockdown solution was applied.

Two (2) negative air units were operating and proper negative pressure was attained within the enclosures.

Two (2) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
vC-603	10:53 (am)	45	12	R-2	540	2 <sup>nd</sup> Level Teacher's Bathroom * Clearance Sample	0.001
√C-604	10:48 (am)	42	15	A-111	645	Student Entrance Area * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

No Penetrations Observed	Yes
Repairs Required	NO

Prompt Response	NO NO
4. Negative Air Pressure	
Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	Yes
Filters Inspected and Changed as Required	Yes

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	V
CSA Safety Boots	V

# 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

# 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	N/A	

# 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	5
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE

lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



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June 3<sup>rd</sup>. 2017

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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056
Charlottetown, PEI Location: Multi areas

C1A 7N8 Report No.:

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Saturday, June 3, 2017 ALL-TECH consultant Ken Parsons conducted inspections and final clearance during today's shift. On arrival, the contractor concluded abatement activates within Block 1C1 of the HVAC. The area was inspected with no debris on the ground and an adequate amount of lockdown solution was applied. In addition the contractor started asbestos abatement activates of the ceiling within the 2<sup>nd</sup> level teachers bathroom.

Four (4) negative air units were operating and proper negative pressure was attained within the enclosures.

Two (2) perimeter samples were collected as well as one (1) clearance sample. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
νC-600	12:20 (pm)	50	12	R-2	600	Block 1C1 * Clearance Sample	0.002
vC-601	12:22 (pm)	51	15	A-111	750	Block 1C1 (outside enclosure)  * Perimeter Sample	N/D
νC-602	1:32 (pm)	38	15	A-111	570	2 <sup>nd</sup> Level Outside Teacher's Bathroom * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

No Penetrations Observed	Yes
Repairs Required	NO
Prompt Response	NO

# 4. Negative Air Pressure

Number of Units Operating Effectively	4
Minimum -0.02" H <sub>2</sub> O Maintained	Yes
Filters Inspected and Changed as Required	Yes

# **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	V
CSA Safety Boots	V

# 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

# 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC √

**HSE Consultant** 

**ALL-TECH Environmental Services Limited** 

СС	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	DTIE APM APM APM TOSH



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### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

April 30, 2017 Project No.: PE7056 Location: **Boiler Room** Report No.: 30

Date:

C1A 7N8

P.O. Box 2000

Charlottetown, PEI

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

On Sunday, April 30, 2017 ALL-TECH consultant Ken Parsons conducted inspections and final clearance during today's shift. On arrival, the contractor concluded cleanup following asbestos abatement activates within the boiler room. The boiler room was inspected with no debris on the ground and an adequate amount of lockdown solution was applied. All planned asbestos containing material was removed including breaching and fittings Two (2) negative air units were operating and proper negative pressure was attained within the enclosure.

One (1) perimeter sample was collected outside the enclosure as well as two (2) clearance samples within the boiler. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-429	10:57 (am)	44	15	A-111	660	Corridor Outside Boiler Room * Perimeter Sample	0.001
√C-438	11:00 (am)	46	12	R-3	552	Boiler Room (north) * Clearance Sample	0.004
√C-439	11:01 (am)	45	12	R-4	540	Boiler Room (south) * Clearance Sample	0.007

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. 

No Penetrations Observed	Yes
Repairs Required	NO
Prompt Response	NO

# 4. Negative Air Pressure

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	Yes
Filters Inspected and Changed as Required	Yes

# **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	V
CSA Safety Boots	V

# 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

# 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC // HSE Consultant

**ALL-TECH Environmental Services Limited** 

СС	Kevin Kennedy Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	DTIE APM APM APM TOSH



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# ASBESTOS ABATEMENT AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

> P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

April 29<sup>th</sup>, 2017 Date:

Project No.: PE7056 Location: Boiler Room

Report No.: 29

#### **Details To Be Noted:** 1.

On April 29<sup>th</sup>, 2017, ALL-TECH Environmental Services Limited collected one (1) Environmental Perimeter Sample for airborne asbestos fibres during asbestos abatement work taking place at Three Oaks Senior High School in Summerside, Prince Edward Island. The contractor was removing asbestos containing materials from the boiler room.

Two (2) negative air units were in operation and proper negative air was attained; noted at -0.029 H2O.

The results of the testing are listed below in table form.

A summary of the air sampling results are outlined below in section 2.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-543	8:40 (am)	30	15	A-11	450	Outside Boiler Room * Perimeter Sample	N/D

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter."

	Penetrations Observed	NO
П		

Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	N/A

# 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

Neal Mille

AII	TECH ENVIRONMEN	TAL SERVICES LIMITED (902) 569-0172
CC	Kevin Kennedy	DTIE
	Ian Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM
	Jody MacIntyre Gerald Maccormack	APM TOSH



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# ASBESTOS ABATEMENT AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: April 28<sup>th</sup>, 2017

Project No.: PE7056 Location: Boiler Room

Report No.: 28

#### 1. Details To Be Noted:

On April 28<sup>th</sup>, 2017, ALL-TECH Environmental Services Limited collected one (1) Environmental Perimeter Sample for airborne asbestos fibres during asbestos abatement work taking place at Three Oaks Senior High School in Summerside, Prince Edward Island. The contractor was removing asbestos containing materials from the boiler room.

Two (2) negative air units were in operation and proper negative air was attained; noted at -0.029 H2O.

The results of the testing are listed below in table form.

A summary of the air sampling results are outlined below in section 2.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-477	11:10 (am)	30	15	A-11	450	Outside Boiler Room * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

Penetrations Observed	NO
Repairs Required	NO

Prompt Response	N/A
4. Negative Air Pressure	
Number of Units Operating Effectively	2
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES
5. Personal Protective Equipment	

Powered Air Purifying Respirators with HEPA Filters	$\sqrt{}$
Disposable Coveralls	V
CSA Safety Boots	

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	N/A

# 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Senior Environmental Consultant

**ALL-TECH Environmental Services Limited** 

Neal mille

ALL-	Kevin Kennedy	TAL SERVICES LIMITED (902) 569-0172 DTIE
00	Ian Harper	APM
	lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM
	Gerald Maccormack	TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI

C1A 7N8 Attn: Tyler Richardson Date: April 27, 2017

Project No.: PE7056 Location: Boiler Room

Report No.: 27

#### 1. Details To Be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections (Boiler Room) during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Thursday April 27, 2017 ALL-TECH consultant Neal Millman conducted an initial inspections during today's shift within the boiler room.

Three (3) negative air units were in operation and proper negative air was attained; noted at -0.031 H<sub>2</sub>O.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	3
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	$\sqrt{}$
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	N/A

### 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Yours Very Truly,

Consultant:

Neal Millman, CET

DTIE

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

Neal mille

ALL-TECH ENVIRONMENTAL SERVICES LIMITED (902) 569-0172

cc Kevin Kennedy

lan Harper Pat Ramsay Jody MacIntyre Gerald Maccormack	APM APM APM TOSH



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# ASBESTOS ABATEMENT AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: April 19<sup>th</sup>, 2017

Project No.: PE7056

Location: exterior windows

Report No.: 26

#### 1. Details To Be Noted:

On April 19<sup>th</sup>, 2017, ALL-TECH Environmental Services Limited collected three (3) Environmental Clearance Samples and (1) Perimeter Sample for airborne asbestos fibres during asbestos abatement work taking place at Three Oaks Senior High School in Summerside, Prince Edward Island. The contractor was removing asbestos containing materials from the window casings from the exterior of the building. Interior polyethylene sheeting was installed by the contractor to prevent airborne fibres from entering the building during the process. Clearance samples were collected inside of the polyethylene containment areas at the completion of the work.

The results of the testing are listed below in table form.

A summary of the air sampling results are outlined below in section 2.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-537	8:55 (am)	40	15	R-3	600	Lower Level – Window Rm 109 * Final Clearance Sample	< 0.001
√C-538	8:58 (am)	40	15	R-1	600	Lower Level – Window Rm 107 * Final Clearance Sample	< 0.001
√C-539	9:00 (am)	40	15	R-4	600	Lower Level – Window Rm 108 * Final Clearance Sample	N/D
√C-540	9:04 (am)	40	12	R-2	480	Lower Level – Hallway (Central Area) * Perimeter Sample	0.003

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is

primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter."

Should you have any questions concerning this report, please contact us at (902) 569-0172.

Respectfully submitted,

Sonja Parkman, EPt

Environmental Technician

**ALL-TECH Environmental Services Ltd.** 

Office: (902) 835-3727

cc Kevin Kennedy DTIE

Ian HarperAPMPat RamsayAPMJody MacIntyreAPMGerald MaccormackTOSH



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# ASBESTOS ABATEMENT AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: April 18<sup>th</sup>, 2017

Project No.: PE7056

Location: exterior windows

Report No.: 25

# Details To Be Noted:

1.

On April 18<sup>th</sup>, 2017, ALL-TECH Environmental Services Limited collected three (3) Environmental Clearance Samples and (1) Perimeter Sample for airborne asbestos fibres during asbestos abatement work taking place at Three Oaks Senior High School in Summerside, Prince Edward Island. The contractor was removing asbestos containing materials from the window casings from the exterior of the building. Interior polyethylene sheeting was installed by the contractor to prevent airborne fibres from entering the building during the process. Clearance samples were collected inside of the polyethylene containment areas at the completion of the work.

The results of the testing are listed below in table form.

A summary of the air sampling results are outlined below in section 2.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-533	12:50 (pm)	50	12	R-2	600	Lower Level – Hallway (Central Area) * Perimeter Sample	0.002
√C-534	12:55 (pm)	40	15	R-3	600	Lower Level – Window Rm 109 * Final Clearance Sample	< 0.001
√C-535	1:00 (pm)	40	15	R-4	600	Lower Level – Window Rm 110 * Final Clearance Sample	N/D
√C-536	12:58 (pm)	40	15	R-1	600	Lower Level – Window Rm 111 * Final Clearance Sample	< 0.001

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is

primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter."

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Sonja Parkman, EPt

Environmental Technician

**ALL-TECH Environmental Services Ltd.** 

Office: (902) 835-3727

cc Kevin Kennedy DTIE Ian Harper APM

Pat Ramsay APM
Jody MacIntyre APM
Gerald Maccormack TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

> P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

April 8, 2017 Date:

Project No.: PE7056 Former ELSB Location:

Report No.: 24

#### **Details To Be Noted:** 1.

On Saturday, April 8, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift. On arrival, the contractor was removing asbestos containing ceiling tile within 2 enclosure, one (1) near the main entrance and another before the lobby. In addition, during inspections the contractor removed hardboard from Block 1C1 entrance and within a room in the former English Language School Board. During the abatement it was noted that the contractor was practicing proper housekeeping and using wet wipe techniques. Workers were using HEPA vacuums and double bagging debris as they removed the material.

Following reported perimeter samples within the English Language School board (ELSB) work area, workers were noted removing ducting and wrapping with Polyethylene sheeting, sealing with adhesive glue, and duct tape. Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-526	10:00 (am)	42	12	R-3	504	Main Entrance Corridor (in between lobby & entrance enclosure)  * Perimeter Sample	0.003
√C-527	10:01 (am)	53	12	R-2	636	Lobby Entrance Corridor  * Clearance Sample	0.001
√C-525	10:05 (am)	50	12	R-4	600	Main Entrance Enclosure  * Clearance Sample	N/D
√C-529	10:55 (am)	40	12	R-2	480	Former English Language School board * Perimeter Sample	N/D
√C-528	11:05 (am)	50	15	A-111	750	Block 100 Stairwell * Perimeter Sample	N/D
√C-531	11:30 (am)	45	12	R-2	540	Former English Language School Board (enclosure) * Clearance Sample	N/D
√C-530	11:36 (am)	30	15	A-111	450	Block 100 Entry * Clearance Sample	0.001

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

### 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	NO

#### 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	M/A
Filters Inspected and Changed as Required	N/A

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	YES
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC / HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Jody MacIntyre APM
Gerald Maccormack TOSH



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### ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

April 6, 2017 Date: P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Former ELSB Location: Report No.: 23

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Wednesday, April 6, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift. On arrival to the English Language School Board work area, workers were using HEPA vacuums within 2 barriers and the exterior asbestos containing hardboard was removed. When meeting with the abatement supervisor at the exterior of the building, it was noted that one of the workers removed a proportion of the barrier prior to Environmental Clearance Sampling. Work was stopped immediately. Four (4) perimeter samples were collected, two (2) within the work area, and two (2) within the school. The barrier was also repaired. All samples collected were within regulations set by PEI Occupational Health & Safety Act and noted in section 2. Sandy Clarke of Workers, officer of the Compensation Board, was on site at the time of the incident.

Following reported perimeter samples within the English Language School board work area, workers were noted removing ducting and wrapping with Polyethylene sheeting, sealing with adhesive glue, and duct tape.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-520	11:26 (am)	56	12	R-2	672	Former English Language School board (outside of barrier) * Perimeter Sample	0.004
√C-521	11:26 (am)	54	12	R-3	648	ormer English Language School board (central area) * Perimeter Sample	0.002
vC-517	12:41 (pm)	62	12	R-2	744	Lower Level Outside Room 114  * Perimeter Sample	N/D
√C-522	12:42 (pm)	61	12	R-3	732	Lower Level Outside Of former English Language School Board * Perimeter Sample	N/D
√C-523	1:34	41	12	R-2	492	Barrier #1	N/D

						(former English Language School Board)	
√C-524	1:36 (pm)	42	12	R-3	504	Barrier #2 (former English Language School Board)	0.001

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

### 3. Site Conditions (Enclosures)

No Penetrations Observed	NO
Repairs Required	YES
Prompt Response	YES

### 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	M/A
Filters Inspected and Changed as Required	N/A

### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	(1/2 Respirators)
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	N/A	

# 9. Number of Workers On-Site

Asbestos Abatement Contractor	sbestos Abatement Contractor Marenco	
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC 

HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI C1A 7N8

Attn: Tyler Richardson

Date: April 5, 2017

Project No.: PE7056 Location: multiple

Report No.: 22

#### 1. Details To Be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Wednesday, April 5, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift. The contractor continued removing ducting from the former English Language School Board area. It was noted that five (5) workers were enclosing the ducting with polyethylene sheeting, duct tape, and removing the ducting from the area. In addition two (2) workers were preparing window removal to perform abatement on asbestos containing hardboard.

No samples were collected during today's shift.

Results are noted in Section 2.

Refer to sections 2 – 9 for daily inspection checklist.

# 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
-	-	-	-	-	-	-	-

### 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	M/A

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	(1/2 Respirators)
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	YES

#### 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC 

HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

April 4, 2017 P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: Block 1C1 Report No.: 21

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Tuesday, April 4, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift. The contractor had removed asbestos containing hardboard from the exterior of the building of the former English Language School Board work area. It was noted that the material was in one piece and wrapped with polyethylene sheeting, sealed with duct tape, and placed in a bin.

During the work inspections two (2) workers were removing asbestos containing hard board from the exterior bulk head, above the entrance to the former English Language School Board work area. In addition two (2) workers were removing ducting within the former English Language School Board work area. Three (3) workers were also noted performing tear down of the enclosure within Block 1C1.

One (1) clearance sample was collected in the barrier within the former English language School Board, on the other side of the hardboard removal. One (1) perimeter sample was also collected within the school area, lower level corridor outside the former English Language School Board work area.

Results are noted in Section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-516	12:32 (pm)	64	12	R-2	768	Lower level outside former English Language School Board * Perimeter Sample	N/D
vC-519	12:28 (pm)	80	12	R-3	960	Former English Language School Board (window barrier) * Clearance Sample	0.001

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental

Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

# 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	N/A

#### 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	M/A
Filters Inspected and Changed as Required	N/A

### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	(1/2 Respirators)	
Disposable Coveralls	V	
CSA Safety Boots	V	

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

#### 7. Waste Management

Waste properly double bagged before leaving site	N/A	
Waste transfer manifest documentation	YES	

#### 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	N/A	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	8
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC /

**HSE Consultant** 

**ALL-TECH Environmental Services Limited** 

Kevin Kennedy
Ian Harper
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Gerald Maccormack
APM
TOSH Chris Keefe PSB



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Charlottetown, PEI C1A 7N8

Attn: Tyler Richardson

Date: April 27, 2017

Project No.: PE7056 Location: Boiler Room

Report No.: 27

### 1. Details To Be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections (Boiler Room) during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Thursday April 27, 2017 ALL-TECH consultant Neal Millman conducted an initial inspections during today's shift within the boiler room.

Three (3) negative air units were in operation and proper negative air was attained; noted at -0.031 H<sub>2</sub>O.

No (0) clearance samples were collected today.

Refer to sections 2 – 9 for daily inspection checklist.

### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

# 4. Negative Air Pressure

Number of Units Operating Effectively	3
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	N/A	
Amended Water	V	
Negative Air Filtration	YES	

# 7. Waste Management

Waste properly double bagged before leaving site	N/A
Waste transfer manifest documentation	N/A

### 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	4
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Yours Very Truly,

**Consultant:** 

Neal Millman, CET

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

Neal mille

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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

March 30, 2017 P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: Block 1C1 Report No.: 18

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Thursday March 30, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift within Block 1C1. During the perimeter inspection, it was noted that a barrier was slightly opened on the upper proportion with the polyethylene sheeting and duct tape detached. The penetration was located on the main level lobby area outside the entrance to the locker room. The second barrier was intact; sealed on the adjacent side. The contractor was notified, worked was temporary stopped, and promptly repaired. Work continued following the enclosure repairs and a perimeter sample was also collected in the area.

During the work site inspection, all asbestos containing ceiling tiles were noted removed. Workers were removing asbestos containing parging from pipe fittings within the area. Good housing keep was noted with amended water being utilized.

Six (7) negative air units were in operation and proper negative air was attained; noted at -0.028 H<sub>2</sub>O.

Two (2) perimeter samples were collected, one on the main level lobby area outside of the locker room entrance and another collected near the main entrance adjacent to classroom 111 outside the enclosure.

Results are also noted in Section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-504	12:12 (pm)	92	12	R-2	1104	Main Level Lobby outside locker room entrance  * Perimeter Sample	0.004
√C-505	12:12 (pm)	82	12	R-3	984	Main Entrance Area adjacent to classroom 111 (outside of enclosure)  * Perimeter Sample	0.003

ND None Detected √ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	(barrier leading into locker room enclosure)		
Repairs Required	YES		
Prompt Response	(contractor immediately contacted and repaired promptly)		

## 4. Negative Air Pressure

Number of Units Operating Effectively	7
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	N/A	
Waste transfer manifest documentation	N/A	

#### 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	YES	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC 

HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE
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March 29, 2017

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: Block 1C1 Report No.: 17

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Wednesday March 29, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift within Block 1C1. Workers were noted continuing removing asbestos containing ceiling tile with about 50% of the tile removed. It was noted that the ceiling tile was doubled bagged and placed in a classroom close to the deacon. In addition, workers were removing asbestos containing parging from pipe fittings.

Workers were also noted setting up scaffolding at the exterior and preparing to remove a window outside of the former English Language School Board.

Six (7) negative air units were in operation and proper negative air was attained; noted at -0.027 H<sub>2</sub>O.

Two (2) perimeter samples were also collected, one on 2<sup>nd</sup> level above the work area outside classroom 409 and another collected within the former English Language School Board, adjacent to window removal.

Results are also noted in Section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-502	10:49 (am)	102	12	R-2	1224	2 <sup>nd</sup> Level outside classroom 409 (above work area) * Perimeter Sample	N/D
√C-503	10:55 (am)	110	12	R-3	1320	former English Language School board (interior adjacent to window removal) * Perimeter Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental

Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	7
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	N/A	
Waste transfer manifest documentation	N/A	

#### 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	YES

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC /

**HSE Consultant** 

**ALL-TECH Environmental Services Limited** 

Kevin Kennedy
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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

March 28, 2017 P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: Block 1C1 Report No.: 16

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Tuesday March 28, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift within Block 1C1. Workers were paired in twos working throughout the enclosure removing asbestos containing ceiling tiles. It was noted that amended water was used during the removal. In addition, a worker was removing asbestos containing parging from the pipe fittings.

Six (6) negative air units were in operation and proper negative air was attained; noted at -0.027 H<sub>2</sub>O.

Two (2) perimeter samples were also collected, one on the main level lobby area outside of the locker room entrance and another collected near the main entrance adjacent to class room 111 outside the enclosure. Results are also noted in Section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-500	12:17 (pm)	117	12	R-3	1404	Main Level Lobby outside locker room entrance * Perimeter Sample	0.002
√C-500	12:19 (pm)	114	12	R-2	1368	Main Entrance Area adjacent to classroom 111 (outside of enclosure)  * Perimeter Sample	0.002

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

# 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	

#### 6. Dust Control

Wet Wiping Techniques	N/A
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	N/A	
Waste transfer manifest documentation	N/A	

#### 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	YES	

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC 

HSE Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

March 27, 2017 Date:

Project No.: PE7056

Location: Multiple Areas

Report No.:

14

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Monday March 27, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift within the former English Language School Board office area. During inspections the work area was clean of debris and lockdown solution was inspected to be adequate. Six (6) Negative Air Units were in operation and pressure was noted at -0.021 H<sub>2</sub>O. Three (3) clearance samples were collected throughout the work area and noted in Section 2

In addition, a pre-work inspection was conducted within construction phase 1C1. During the inspection barriers were in place on the walls, floors, entries, and the ducting. Six (6) negative air units were in operation and proper negative air was attained; noted at -0.022 H<sub>2</sub>O. The contractor was given approval to begin asbestos abatement within the work enclosure.

Two (2) perimeter samples were also collected, one on the 2<sup>nd</sup> level outside room 420 and another collected at the lower level outside the former English Language School board entry. Results are also noted in Section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-494	11:15 (am)	62	12	R-2	744	English Language School Board Reception Area * Final Clearance Sample	0.003
√C-495	11:20 (am)	59	12	R-3	708	English Language School Board Book Storage Room * Final Clearance Sample	0.002
√C-496	11:22 (am)	59	12	R-4	708	English Language School Board Outside of Vault * Final Clearance Sample	0.004
√C-498	11:25 (am)	86	12	R-2	1032	2 <sup>nd</sup> level outside Rm 420 * Perimeter Sample	ND

vC-499	vC-499 11:30 80 12 R-3					Lower Level corridor outside former English Language School Board Outside * Perimeter Sample		
A Air monitor Act. The currindustrial Hy During samp cellulose est The above no counting rule orimarily use This method	rent Threshold gienists (ACGII de collection and er sampling cas oted samples w es. NIOSH state	Limit Value (T H) is 0.1 fibres nd analysis, th ssettes with a vere analyzed es in the secti g asbestos co fibres < 0.25µ	'LV) for all sper cubine NIOSH in pore size using the contitled in the continue on the content at its manner on the content at its manner of the content at its m	I forms of a c centimetr 7400 Metho e of 0.8μ m. NIOSH 740 'Applicabili ions, thoug	asbestos is s re (f/cc) od was follow 00 Method, ( ity" that "thi	in regulations set by PEI Occupational Feet by the American Conference of Government. The samples were collected on a 3 Asbestos and Other Fibres by PCM) follows method gives an index of airborne fibres not differentiate between asbestos and	rnmental piece, 25mm owing "A" es. It is	
	ations Observe					YES		
Repairs Re		<u> </u>				NO		
Prompt Res	-					YES		
	ected and Cha					YES		
	nal Protectiv					1		
	Air Purifying F e Coveralls	Respirators v	with HEP	'A Filters				
CSA Safe								
	antual .							
6. Dust C	ontroi		Wet Wiping Techniques			N/A		
						N/A		
	g Techniques					N/A √		
Wet Wiping	g Techniques Water					N/A √ YES		
Wet Wiping Amended V Negative A	g Techniques Water	nt				V		
Wet Wiping Amended V Negative A  7. Waste	y Techniques Water ir Filtration		eaving si	te		V		
Amended V Negative A  7. Waste Waste prop	Techniques Water ir Filtration  Manageme	agged before I		te		√ YES		
Wet Wiping Amended V Negative A  7. Waste Waste prop Waste trans	y Techniques Water ir Filtration  Management Derly double ba	agged before l documentation		te		√ YES		
Wet Wiping Amended V Negative A  7. Waste Waste prop Waste trans 8. Work \$	Techniques Water ir Filtration  Manageme  Derly double basfer manifest d	agged before l documentation		te		√ YES		

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	9
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC / HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE
lan Harper APM
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March 26, 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056

Date:

Charlottetown, PEI

Location: Former English Language School Board

C1A 7N8 Report No.: 14

Attn: Tyler Richardson

#### 1. Details To Be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Sunday March 26, 2017 ALL-TECH consultant Neal Millman conducted inspections during today's shift within the former English Language School Board office area. During inspections the workers were observed wet wiping the area with amended water. It was noted during inspections that the area was nearly completed and the contractor noted they were going to apply lockdown solution during the afternoon to finalize the area. Seven (7) Negative Air Units were in operation at the time of inspections and proper negative air was attained.

One (1) perimeter sample was collected during the site visit within the lower level outside the barrier leading into the former English Language School Board. Results can be found below in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-497	10:45 (am)	45	12	R-4	540	Lower Level Outside former English Language School Board Entry * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The sample was collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

# 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	YES

# 4. Negative Air Pressure

Number of Units Operating Effectively	7
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

# **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	Yes

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	5
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Neal Millman, CET

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

СС	Kevin Kennedy Ian Harper Pat Ramsay Gerald Maccormack Chris Keefe	DTIE APM APM TOSH PSB



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March 25, 2017

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Location: Multiple Areas

Date:

Project No.: PE7056

C1A 7N8

Attn: Tyler Richardson

#### Report No.: 13

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Saturday March 25, 2017 ALL-TECH consultant Neal Millman conducted inspections during today's shift within the former English Language School Board office area. During inspections the workers were observed using HEPA vacuums on the upper proportion of the work area, vacuuming left over debris from previous demolition. Seven (7) negative air units were operating and proper negative pressure was attained within the enclosure.

In addition, 2 workers were performing abatement activates, removing asbestos containing ceiling tile, within the entry of the woodshop. Proper barriers were in place during the removal and the debris was noted double bagged before leaving the site.

Three (3) samples were collected during the site visit. Two (2) perimeter samples were conducted, one within the lower level outside the barrier leading into the former English Language School Board as well as another sample was collected in the stairwell leading to the entry to the Woodshop area. A clearance sample was also collected following asbestos abatement within the entry leading to the woodshop area.

Results can be found below in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-281	10:15 (am)	30	15	A-11	450	Lower Level Outside former English Language School Board Entry * Perimeter Sample	N/D
√C-280	10:20 (am)	30	15	A-111	540 40	Stairway to Woodshop area  * Perimeter Sample	N/D
√C-482	11:00 (am)	30	15	A-11	450	Entry to woodshop area * Clearance Sample	N/D

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety

Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	7
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

## 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	Yes	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Neal Millman, CET

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB



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March 25, 2017

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Location: Multiple Areas

Date:

Project No.: PE7056

C1A 7N8

Attn: Tyler Richardson

#### Report No.: 13

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Saturday March 25, 2017 ALL-TECH consultant Neal Millman conducted inspections during today's shift within the former English Language School Board office area. During inspections the workers were observed using HEPA vacuums on the upper proportion of the work area, vacuuming left over debris from previous demolition. Seven (7) negative air units were operating and proper negative pressure was attained within the enclosure.

In addition, 2 workers were performing abatement activates, removing asbestos containing ceiling tile, within the entry of the woodshop. Proper barriers were in place during the removal and the debris was noted double bagged before leaving the site.

Three (3) samples were collected during the site visit. Two (2) perimeter samples were conducted, one within the lower level outside the barrier leading into the former English Language School Board as well as another sample was collected in the stairwell leading to the entry to the Woodshop area. A clearance sample was also collected following asbestos abatement within the entry leading to the woodshop area.

Results can be found below in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-281	10:15 (am)	30	15	A-11	450	Lower Level Outside former English Language School Board Entry * Perimeter Sample	N/D
√C-280	10:20 (am)	30	15	A-111	540 40	Stairway to Woodshop area  * Perimeter Sample	N/D
√C-482	11:00 (am)	30	15	A-11	450	Entry to woodshop area * Clearance Sample	N/D

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety

Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	7
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	Yes

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ect Consultant ALL-TECH Environmental	

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Neal Millman, CET

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB



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March 22, 2017

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

> P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Block C – 1C3 (north) Report No.:

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Wednesday March 22, 2017, ALL-TECH consultant Ken Parsons conducted inspections within Block C – 1C3 (north). During inspections the work area was reported cleaned with an adequate amount of lock solution applied. Negative air pressure was noted at -0.021 H<sub>2</sub>O at the time of inspection

Workers were performing abatement activities, removing ceiling tile, from the Lan Room on the second level. In Addition, workers were continuing preparation within the former English Language School Board office space by sealing holes.

A total of 3 clearance samples were collecting during the site visit, 2 within Block C -1C3 enclosure, as well as one (1) within the Lan Room. Also, a perimeter sample was collected within the corridor outside the Lan Room during abatement activates. Results can be found below in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-486	10:41 (am)	44	12	R-2	528	Block C – 1C3 (north) * Clearance Sample	0.002
√C-488	10:40 (am)	45	12	R-3	540	Block C – 1C3 (south) * Clearance Sample	0.001
√C-489	11:20 (am)	30	15	A-11	450	Corridor Outside of Lan Room * Perimeter Sample	N/D
√C-490	11:55 (am)	40	12	R-2	480	Lan Room * Clearance Sample	N/D

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

# 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	NO

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	NO

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

## 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	YES	

#### 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	Yes	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

ewal Date: March 21, 2017 Project No.: PE7056

P.O. Box 2000

Location: Block C – 1C3 (north)

Charlottetown, PEI C1A 7N8

Report No.: 10

Attn: Tyler Richardson

#### 1. Details To Be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Tuesday March 21, 2017, ALL-TECH consultant Ken Parsons conducted inspections within Block C – 1C3 (north). During inspections workers continued utilizing HEPA vacuums; cleaning within the larger proportion of the work area. The side rooms of the enclosure were reported cleaned. The majority of the work area was cleaned and the contractor reported that lockdown solution would be used later in the day.

An addition, workers were setting up additional negative air units within the former English language office space area.

Negative air pressure was noted at -0.022 H<sub>2</sub>O at the time of inspection. Perimeter Sampling was collected outside room 114 in the lower level. Results can be found below in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
vC-485	10:55 (am)	75	12	R-2	900	Lower Level Outside Room 114  * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

# 3. Site Conditions (Enclosures)

No Penetrations Observed	YES
Repairs Required	NO
Prompt Response	NO

# 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	NO

# **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	NA

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	Yes

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

ALL-TECH Environmental Services Limited

СС	Kevin Kennedy Ian Harper Pat Ramsay Gerald Maccormack	DTIE APM APM TOSH
	Coraid massormasic	



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI Location: Block C

C1A 7N8

Attn: Tyler Richardson

Date: March 20, 2017 Project No.: PE7056

Location: Block C – 1C3 (north) Report No.: 09

#### 1. Details To Be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Monday March 20, 2017, ALL-TECH consultant Ken Parsons conducted inspections within Block C-1C3 (north). During inspections workers were utilizing HEPA vacuums; cleaning within the larger proportion of the work area. The back rooms of the enclosure were reported cleaned. An addition, workers were using wet wipe procedures on the walls within the enclosure. All waste bags from previous abatement were reported removed from the enclosure.

Negative air pressure was noted at  $-0.020~H_2O$  at the time of inspection. Perimeter Sampling was collected outside of the enclosure by the stairwell. Results can be found below in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-483	11:50 (am)	62	12	R-2	744	Second Level Outside Room 420 * Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	YES

Repairs Required	NO
Prompt Response	NO

# 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	NO

# **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	YES (bags)
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	NA

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	Yes

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 

СС	Kevin Kennedy Ian Harper Pat Ramsay Gerald Maccormack	DTIE APM APM TOSH
	Coraid massormasic	



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March 17, 2017

PE7056

Report No.:

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

Date: P.O. Box 2000 Project No.:

Charlottetown, PEI Location: Block C – 1C3 (north)

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:**

1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Friday March 17, 2017, ALL-TECH consultant Ken Parsons conducted inspections within Block C – 1C3 (north). During the inspections workers were removing asbestos containing bags from the enclosure and placing them into a double door container. Waste was noted to be double bagged at the time of inspections.

Negative air pressure was noted at -0.021 H<sub>2</sub>O at the time of inspections. Perimeter Sampling was collected on the second level above the enclosure outside of room 420. Results can be found below in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-482	2:05 (pm)	62	12	R-2	744	Second Level Outside Room 420 * Perimeter Sample	N/D

#### None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25 µ m in diameter."

#### 3. Site Conditions (Enclosures)

No Penetrations Observed	YES

2

# 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	NO

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	YES (bags)
Amended Water	V
Negative Air Filtration	YES

# 7. Waste Management

Waste properly double bagged before leaving site	YES	
Waste transfer manifest documentation	NA	

## 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	Yes	

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant ALL-TECH Environmental		1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 

СС	Kevin Kennedy Ian Harper Pat Ramsay Gerald Maccormack	DTIE APM APM TOSH
	Coraid massormasic	



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: March 16, 2017

Project No.: PE7056

Location: Proposed Clean-up Area

Report No.: 07

#### 1. Details To Be Noted:

On Thursday March 16<sup>th</sup>, 2017, ALL-TECH consultant Larry Koughan was on site to attend the job safety meeting in the morning. Several things were discussed as far as the clean up of the former school board office and the abatement in the former woodshop area. At the time of the meeting the contractor had still not attained proper negative pressure in the woodshop area and was continuing sealing small openings. It was decided to get additional negative air units and try to expediate the clean up area once all safety measures were in place.

As a result during the afternoon shift, the contractor had sufficient negative pressure in the former woodshop abatement area and was cleared to resume cleaning and abatement in this area for tomorrows shift.

During the afternoon shift, ALL-TECH consultant Larry Koughan was on site to attend an information session with custodial and maintenance staff at TOSH.

Air monitoring was conducted in two separate perimeter areas of the school in close proximity to the abatement work area. Results of testing is noted in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am:/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-473	1:12 (pm)	65	12	R-2	780	2nd Level stairwell outside Rm 420/ *Perimeter Sample	N/D
√C-474	1:20 (pm)	66	12	R-3	792	Main level corridor outside book storage / *Perimeter Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is

primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter."

# 3. Site Conditions (Enclosures)

No Penetrations Observed	NO Proposed Clean-up Area"
Repairs Required	NO Proposed Clean-up Area"
Prompt Response NO Proposed Clean-up Area"	

# 4. Negative Air Pressure

Number of Units Operating Effectively	8 (woodshop enclosure) 2 (proposed clean-up area)
Minimum -0.02" H₂O Maintained	YES at the end of the day (woodshop enclosure) YES (proposed clean-up area with expectation of final enclosure)
Filters Inspected and Changed as Required	YES

# 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	NA (woodshop enclosure) YES (proposed clean-up area)	
Amended Water	NA	
Negative Air Filtration	YES (proposed clean-up area)	

# 7. Waste Management

Waste properly double bagged before leaving site	NA at this time	
Waste transfer manifest documentation	NA	

## 8. Work Site Cleanliness

General House Keeping	good	
ACM bagged as work progresses	NA	

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Larry Koughan, GET, CRSP Project Principal

ALL-TECH Environmental Services Limited

СС Kevin Kennedy DTIE Ian Harper APM Pat Ramsay APM Gerald Maccormack TOSH Chris Keefe PSB



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March 15, 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Proposed Clean-up Area

Date:

C1A 7N8 Report No.: 06

Attn: Tyler Richardson

### 1. Details To Be Noted:

On Thursday March 15<sup>th</sup>, 2017, ALL-TECH consultant Ken Parsons checked in with the abatement contractor on the status of the negative pressure for the "Proposed Clean-up Area" enclosure. Workers were noted placing and sealing a negative air unit within the load dock area for the final enclosure for cleanup in room 210, storage room 209, and corridor. Negative pressure was attained following negative air unit setup and workers commenced cleanup work. Additional workers were noted sealing and preparing the woodshop area enclosure.

During work inspections workers were observed utilizing HEPA Vacuums on floors, boxes, box contents, cleaning diffusers, walls, book covers, and cleaning floors using wet wipe procedures, It was also noted that the ceiling tile was sprayed with Lock Down Solution prior to conducting two clearance samples.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am:/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-471	9:22 (am)	57	12	R-2	684	Outside Enclosure by room 114 * Environmental Perimeter Sample	N/D
√C-472	10:05 (am)	43	12	R-2	516	Corridor inside enclosure * Clearance Sample	N/D

### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

NO Proposed Clean-up Area"

Repairs Required	NO Proposed Clean-up Area"		
Prompt Response	NO Proposed Clean-up Area"		

## 4. Negative Air Pressure

Number of Units Operating Effectively	8 (woodshop enclosure) 2 (proposed clean-up area)
Minimum -0.02" H₂O Maintained	NO (woodshop enclosure) YES (proposed clean-up area with expectation of final enclosure)
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	NA (woodshop enclosure) YES (proposed clean-up area)	
Amended Water	NA	
Negative Air Filtration	YES (proposed clean-up area)	

## 7. Waste Management

Waste properly double bagged before leaving site	NA at this time	
Waste transfer manifest documentation	NA	

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	NA

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Lan Jamou

Ken Parsons, GSC HSE Consultant ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB



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# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000

Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: March 14, 2017

Project No.: PE7056

Location: Proposed Clean-up Area

Report No.: 05

### 1. Details To Be Noted:

On Tuesday March 14, 2017, ALL-TECH consultant Ken Parsons spent the day on site performing inspections and monitoring within the "Proposed Clean-up Area".

Enclosure Inspections occurred within the morning prior to cleanup duties within the loading dock area as well as Room 211. In addition inspections were completed within the Staff Room, Storage 212, and Corridor. At the time of inspections proper negative air pressure was attained and barriers were in place prior to work commencing. During work inspections workers were observed utilizing HEPA Vacuums on floors, boxes, box contents, cleaning diffusers, walls, and cleaning floors using wet wipe procedures, It was also noted that the ceiling tile was sprayed with Lock Down Solution prior to conducting two clearance samples.

During the afternoon, workers setup the final area for cleanup within Office 210, 209, and corridor. Barriers were put into place, openings were sealed, and a negative air unit was setup. During inspections adequate negative air was not attained and cleanup did not start within the area.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am:/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-467	8:30 (am)	80	12	R-3	960	Outside of Loading Dock * Environmental Background Sample	N/D
√C-468	10:30 (am)	57	12	R-3	684	Within Loading Dock * Clearance Sample	N/D
√C-469	12:45 (pm)	44	12	R-2	528	Staff Room * Clearance Sample	N/D
√C-470	2:30 (pm)	60	12	R-2	720	Outside of enclosure by room 114 * Environmental Background Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	NO Proposed Clean-up Area"
Repairs Required	NO Proposed Clean-up Area"
Prompt Response	NO Proposed Clean-up Area"

## 4. Negative Air Pressure

Number of Units Operating Effectively	8 (woodshop enclosure) 2 (proposed clean-up area)	
Minimum -0.02" H₂O Maintained	NO (woodshop enclosure) YES (proposed clean-up area with expectation of final enclosure)	
Filters Inspected and Changed as Required	YES	

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

### 6. Dust Control

Wet Wiping Techniques	NA (woodshop enclosure) YES (proposed clean-up area)
Amended Water	NA
Negative Air Filtration	YES (proposed clean-up area)

## 7. Waste Management

Waste properly double bagged before leaving site	NA at this time
Waste transfer manifest documentation	NA

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	NA

## 9. Number of Workers On-Site

	Asbestos Abatement Contractor	Marenco	6
1			

Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB



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March 13, 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Block C – 1C3 (north)

Date:

C1A 7N8 Report No.: 03

Attn: Tyler Richardson

### 1. Details To Be Noted:

On Monday March 13, 2017, ALL-TECH consultant Ken Parsons checked in with the abatement contractor on the status of the negative pressure for the enclosure. At the time of the site visit, the contractor was drilling through the exterior brick wall to setup additional hose exits for their negative air units. Additional workers continued sealing any potential openings from the block wall to the deck to achieve adequate negative air pressure.

During the afternoon workers commenced setup following the "Proposed Clean-up Area" prepared by Department of Transportation, Infrastructure, & Energy. During the time of inspections workers were using Polyethylene sheeting and duct tape to create barriers to separate the area within 3 phases. Negative Air Units were setup to attain adequate pressure. During the time of inspections proper negative air was not attained by the contractor.

Refer to sections 2-9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-461	11:00 (am)	90	12	R-3	1080	Lower Level outside room 114  * Environmental Background Sample	N/D

### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

### 3. Site Conditions (Enclosures)

No Penetrations Observed	Contractor continued to re-evaluate and seal
	openings

Repairs Required	YES
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	NO
Filters Inspected and Changed as Required	YES

## **5. Personal Protective Equipment**

Powered Air Purifying Respirators with HEPA Filters	√
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	NA
Amended Water	NA
Negative Air Filtration	YES – but not to code

## 7. Waste Management

Waste properly double bagged before leaving site	NA at this time
Waste transfer manifest documentation	NA

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	NA

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC HSE Consultant

ALL-	TECH Environmental S	ervices Limited
СС	Kevin Kennedy Ian Harper Pat Ramsay Gerald Maccormack Chris Keefe	DTIE APM APM TOSH PSB



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal Date:

March 10, 2017 P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Block C – 1C3 (north)

Report No.:

03

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

On Friday March 10, 2017, ALL-TECH consultants Larry Koughan and Ken Parsons checked in with the abatement contractor on the status of the negative pressure for the enclosure. At the time of the site visit, the contractor had brought one more negative air unit and had it installed and continued sealing any potential openings from the block wall to the deck. It was noted that all ventilation duct openings were covered in the work area. At the end of the shift the contractor still did not achieve proper negative pressure for the work area so no abatement activities were carried out during todays shift.

A site meeting was held today and a stop work order was issued by WCB/OSH for all contract work on site until an evaluation was completed to assessed conditions for possible asbestos contamination. It was ordered that air monitoring and dust samples be collected in adjacent areas outside of the contamination area in the former School Board office work area. In addition a full asbestos cleanup was ordered to be completed in this area and a scope of work was being developed by the contractor for approval from the Consultant as well as WCB/OSH.

Four (4) environmental background samples were collected in various adjacent areas of the contamination area of the former School Board office and two (2) samples were collected within the affected area. All samples were reported to be below the occupational exposure limit at the time of sampling. Results of air sampling is tabled below in section 2. Five (5) micro-vac samples were sent to IATL for Transmission Electron Microscopy (TEM) analysis. Results of these tests shall be made available when reported by the lab.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-450	12:41 (pm)	63	12	R-3	756	2 <sup>nd</sup> Level corridor outside Rm 420 * Environmental Background Sample	N/D
νC-451	12:48 (pm)	64	12	R-2	768	Main Level – Boiler Room * Environmental Background Sample	N/D
√C-452	12:58 (pm)	60	12	R-4	720	Main level corridor outside Book Room * Environmental Background	N/D

						Sample	
√C-453	2:05 (pm)	75	12	R-2	900	2 <sup>nd</sup> Level central corridor /stairwell * Environmental Background Sample	N/D
vC-454	2:20 (pm)	74	12	R-3	624	Main level former Book storage * Environmental Background Sample	0.002
√C-455	2:25 (pm)	71	12	R-4	852	Former School Board office (outside Rm 5) * Environmental Background Sample	0.003

### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	Contractor continued to re-evaluate and seal openings
Repairs Required	YES
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	8
Minimum -0.02" H <sub>2</sub> O Maintained	NO
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	

### 6. Dust Control

Wet Wiping Techniques	NA
Amended Water	NA
Negative Air Filtration	YES – but not to code

## 7. Waste Management

L		
	Waste properly double bagged before leaving site	NA at this time

Waste transfer manifest documentation	NA

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	NA

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Larry Koughan, CET, CRSP Project Principal ALL-TECH Environmental Services Limited

DTIE СС Kevin Kennedy Ian Harper APM Pat Ramsay APM Gerald Maccormack TOSH



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March 31, 2017

## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Date:

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056 Charlottetown, PEI Location: Block 1C1 Report No.: 19

C1A 7N8

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Friday March 31, 2017 ALL-TECH consultant Ken Parsons conducted inspections during today's shift within Block 1C1. During the perimeter inspection, it was noted that a barrier was opened on the upper proportion with the polyethylene sheeting and duct tape detached. The penetration was located near the school's main entrance, double doors leading into the enclosure. The second barrier was intact; sealed on the adjacent side. The contractor was notified, worked was temporary stopped, and promptly repaired. Work continued following the enclosure repairs and a perimeter sample was also collected in the area.

During the work site inspection, workers were noted using HEPA vacuums throughout the enclosure. In addition, workers were using wet wipe procedures on the upper proportion of the enclosure. The contractor reported they were going to apply lock down solution at the end of the day and clearance samples to be completed Monday, April 3, 2017.

Six (6) negative air units were in operation and proper negative air was attained; noted at -0.023 H<sub>2</sub>O.

Two (2) perimeter samples were collected, one adjacent to classroom 111 outside the enclosure and another outside the work enclosure entrance stairwell.

Results are also noted in Section 2.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-507	12:28 (pm)	103	12	R-3	1236	Outside Entrance to Enclosure (stairwell) * Perimeter Sample	0.001
√C-509	12:24 (pm)	94	12	R-2	1128	Main Entrance Area adjacent to classroom 111 (outside of enclosure)  * Perimeter Sample	0.004

### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	(School's Main Entrance Outside Enclosure)
Repairs Required	YES
Prompt Response	(contractor immediately contacted and repaired promptly)

### 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	YES
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

### 6. Dust Control

Wet Wiping Techniques	YES
Amended Water	V
Negative Air Filtration	YES

### 7. Waste Management

Waste properly double bagged before leaving site	YES
Waste transfer manifest documentation	YES

### 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	N/A

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	7
Project Consultant	ALL-TECH Environmental	1

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Ken Parsons, GSC / HSE Consultant

**ALL-TECH Environmental Services Limited** 

cc Kevin Kennedy DTIE
Ian Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB



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March 9, 2017

# ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Block C – 1C3 (north)

Date:

C1A 7N8 Report No.: 02

Attn: Tyler Richardson

### 1. Details To Be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Thursday March 9, 2017, ALL-TECH consultants Larry Koughan and Ken Parsons checked in with the abatement contractor on the status of the negative pressure for the enclosure. At the time of the site visit, the contractor had brought in 3 more negative air units and had them installed and continued sealing any potential openings from the block wall to the deck. It was noted that all ventilation duct openings were covered in the work area. At the end of the shift the contractor still did not achieve proper negative pressure for the work area so no abatement activities were carried out during todays shift.

Later in the day it was reported that the former school board office which was part of construction phase 1C3 did in fact have ACM ceiling tiles. Additional lab results taken by ALL-TECH during yesterday's shift confirmed this as well. As a result, WCB/OSH and school administration and officials were notified by DTIE. A site meeting and investigation was scheduled for Friday March 9, 2017.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-403	11:06 (am)	52	12	R-2	624	2 <sup>nd</sup> Level corridor outside Rm 420 * Perimeter Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	Contractor continued to re-evaluate and seal openings
Repairs Required	YES
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	7
Minimum -0.02" H <sub>2</sub> O Maintained	NO
Filters Inspected and Changed as Required	YES

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	NA
Amended Water	NA
Negative Air Filtration	YES – but not to code

## 7. Waste Management

Waste properly double bagged before leaving site	NA at this time	
Waste transfer manifest documentation	NA	

## 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	NA

## 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Larry Koughan, CET, CRSP
Project Principal
ALL-TECH Environmental Services Limited

Kevin Kennedy DTIE lan Harper Pat Ramsay APM APM Gerald Maccormack TOSH



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## ASBESTOS ABATEMENT INSPECTION & AIR MONITORING REPORT Three Oaks Senior High School - Summerside, PE

Client: PEI Dept. of Transportation & Infrastructure Renewal

March 8, 2017 P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Block C – 1C3 (north)

Date:

C1A 7N8 Report No.:

Attn: Tyler Richardson

#### **Details To Be Noted:** 1.

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On Wednesday March 8, 2017, ALL-TECH consultants Larry Koughan and Ken Parsons checked in with Site Supervisor Pat Ramsay of APM and received site orientation. After that Pat Ramsay escorted the consultants through the site for familiarization and began our first inspection of the asbestos abatement area located in Block C. Unit 1C3 (north – former woodshop area) of the construction phase. During the inspection, the contractor, Marenco, had begun removing asbestos containing ceiling tiles with the work enclosure. ALL-TECH consultant Larry Koughan performed a visual inspection of the work area and checked the negative pressure of the work area and it was found that sufficient negative pressure was not established for the enclosure. The contractor was notified and ordered to stop removing ceiling tiles and address the negative pressure issue before proceeding further. During the inspection, air monitoring was conducted outside of the work area in an adjacent main floor corridor to evaluate ambient conditions outside of the work area.

Sample results were acceptable at the time of sampling as noted below in Section 2.

At the end of the day the contractor still did not achieve proper negative pressure and was requested to take additional negative air units on site to install tomorrow.

In addition, ALL-TECH was requested to collect additional bulk material samples of the duct mastic. Three samples were collected in the former school board office also noted in construction phase 1C3. Upon entering this space, it was reported that ceiling tiles in this area were not asbestos containing and were removed by Brighton Construction. ALL-TECH consultant Larry Koughan saw that some tiles were still in place and some of the floor and questioned whether they were or not and notified DTIE and APM and collected a sample for analysis.

Refer to sections 2 – 9 for daily inspection checklist.

#### 2. **Air Monitoring Results:**

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√C-423	11:05 (am)	90	12	R-2	1080	Main Level corridor outside Rm 114 * Perimeter Sample	N/D

None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental

Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on a 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted sample was analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter."

## 3. Site Conditions (Enclosures)

No Penetrations Observed	Contractor to re-evaluate and seal openings
Repairs Required	YES
Prompt Response	YES

## 4. Negative Air Pressure

Number of Units Operating Effectively	4
Minimum -0.02" H <sub>2</sub> O Maintained	NO
Filters Inspected and Changed as Required	NO

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	$\sqrt{}$
Disposable Coveralls	V
CSA Safety Boots	V

### 6. Dust Control

Wet Wiping Techniques	NA
Amended Water	V
Negative Air Filtration	YES – but not to code

## 7. Waste Management

Waste properly double bagged before leaving site	NA at this time	
Waste transfer manifest documentation	NA	

### 8. Work Site Cleanliness

General House Keeping	good
ACM bagged as work progresses	Yes

### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions concerning this report, please contact us.

Respectfully submitted,

Larry Koughan, CET, CRSP
Project Principal
ALL-TECH Environmental Services Limited

Kevin Kennedy DTIE lan Harper Pat Ramsay APM APM Gerald Maccormack TOSH



Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: **ALL-TECH Environmental Services Limited** 

20 Duke St., Suite 109

Bedford NS B4A 2Z5

Client: ALL131

Report Date: 5/26/2017

Report No.: 536829 - PLM

**Project:** DTIE PLM Sampling @ TOSH

**Location:** 2nd Level Teacher's Bathroom

**Project No.:** PE7109

### PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6238143 **Description:** Off-White Sheetrock Location: 2nd Level Teacher's Bathroom

Client No.: SA-01 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

5 Cellulose None Detected

Lab No.: 6238143(L2) **Description:** Tan Joint Compound Location: 2nd Level Teacher's Bathroom

Client No.: SA-01 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

None Detected 98.3 **PC 1.7** Chrysotile

Lab No.: 6238143(L3) **Description:** Off-White Joint Compound

Client No.: SA-01 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

None Detected 98.7 **PC 1.3** Chrysotile

Analytical Method -US EPA 600, R93-116. Please refer to the Appendix of this report for further information regarding your analysis

5/19/2017 **Date Received:** 

05/26/2017 Date Analyzed:

uld 10 Signature:

Rodney Redman **Analyst:** 

Frank E. Ehrenfeld, III Laboratory Director

Approved By:

Dated: 5/26/2017 3:47:40 PM Page 1 of 3



Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 5/26/2017

20 Duke St., Suite 109 Report No.: 536829 - PLM

Bedford NS B4A 2Z5 **Project:** DTIE PLM Sampling @ TOSH

Project No.: PE7109 Client: ALL131

## Appendix to Analytical Report

**Customer Contact:** 

Analysis: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: cdavis@iatl.com iATL Account Representative: Alyssa Peiffer Sample Login Notes: See Batch Sheet Attached Sample Matrix: Bulk Building Materials **Exceptions Noted:** See Following Pages

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iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

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### **Information Pertinent to this Report:**

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

### Certifications:

- NIST-NVLAP No. 101165-0
- NY-DOH No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

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Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process) Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)>

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Dated: 5/26/2017 3:47:40 PM Page 2 of 3



Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

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20 Duke St., Suite 109 Report No.: 536829 - PLM

Bedford NS B4A 2Z5 Project: DTIE PLM Sampling @ TOSH

**Project No.:** PE7109 Client: ALL131

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

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- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
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- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

### **Recommendations for Vermiculite Analysis:**

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1) Analytical Step/Method: Initial Screening by PLM, EPA 600R-93/116

Requirements/Comments: Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

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LOQ, Limit of Quantitation estimates for mass and volume analyses.

\*With advance notice and confirmation by the laboratory.

Dated: 5/26/2017 3:47:40 PM Page 3 of 3

<sup>\*\*</sup>Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449 Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited

20 Duke St., Suite 109

Bedford NS B4A 2Z5

Client: ALL131

Report Date: 7/12/2017

Report No.: 541086 - PLM

**Project:** DTIE PLM Sampling @ TOSH

**Project No.:** PE7160

### PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6284885 **Description:** White Sheetrock Location: Rm 416

Client No.: SA-01 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

10 Cellulose None Detected

Lab No.: 6284885(L2) Location: Rm 416 **Description:** Tan Joint Compound

Client No.: SA-01 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

None Detected 98.3 **PC 1.7** Chrysotile

**Lab No.:** 6284886 **Description:** White Sheetrock Location: Rm 416

Client No.: SA-02 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

10 Cellulose None Detected

Lab No.: 6284886(L2) **Description:** Tan Joint Compound Location: Rm 416

Client No.: SA-02 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

None Detected **PC 1.9** Chrysotile

Analytical Method -US EPA 600, R93-116. Please refer to the Appendix of this report for further information regarding your analysis

**Date Received:** 7/12/2017 07/12/2017

**Date Analyzed:** 

**Analyst:** 

Signature:

Alex Wright

Approved By:

Frank E. Ehrenfeld, III Laboratory Director

Dated: 7/12/2017 2:49:30 PM Page 1 of 3



Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 7/12/2017

20 Duke St., Suite 109 Report No.: 541086 - PLM

Bedford NS B4A 2Z5 **Project:** DTIE PLM Sampling @ TOSH

Project No.: PE7160 Client: ALL131

## Appendix to Analytical Report

**Customer Contact:** 

Analysis: US EPA 600, R93-116

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Sample Matrix: Bulk Building Materials **Exceptions Noted:** See Following Pages

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iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

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Dated: 7/12/2017 2:49:30 PM Page 2 of 3



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7/12/2017

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date:

20 Duke St., Suite 109 Report No.: 541086 - PLM

Bedford NS B4A 2Z5 Project: DTIE PLM Sampling @ TOSH

**Project No.:** PE7160 Client: ALL131

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique – by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

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LOQ, Limit of Quantitation estimates for mass and volume analyses.

\*With advance notice and confirmation by the laboratory.

Dated: 7/12/2017 2:49:30 PM Page 3 of 3

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## CERTIFICATE OF ANALYSIS

Client: **ALL-TECH Environmental Services Limited** 

20 Duke St., Suite 109

Bedford NS B4A 2Z5

Client: ALL131

Report Date: 8/16/2017

Report No.: 543866 - PLM

**Project:** DTIE TOSH PLM Sampling

**Project No.:** PE7160

### PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6313917

Client No.: SA-01

**Description:** White/Tan Ceiling Tile **Facility:** 

Location: Outside Room 3B

Percent Asbestos: None Detected

Percent Non-Asbestos Fibrous Material:

65 Cellulose 5 Mineral Wool Percent Non-Fibrous Material:

Lab No.: 6313918

Client No.: SA-02

**Description:** White/Tan Ceiling Tile

**Facility:** 

**Location:** Outside Room 322

Percent Asbestos: None Detected Percent Non-Asbestos Fibrous Material:

65 Cellulose

5 Mineral Wool

Percent Non-Fibrous Material:

Analytical Method -US EPA 600, R93-116. Please refer to the Appendix of this report for further information regarding your analysis

**Date Received:** 

8/14/2017

Date Analyzed:

08/16/2017

Signature:

Muhammad Mirza **Analyst:** 

Dated: 8/17/2017 10:58:38 AM

Approved By:

Frank E. Ehrenfeld, III Laboratory Director

Page 1 of 3



Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

8/16/2017 Client: ALL-TECH Environmental Services Limited Report Date:

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Bedford NS B4A 2Z5 **Project:** DTIE TOSH PLM Sampling

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## Appendix to Analytical Report

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Dated: 8/17/2017 10:58:39 AM Page 2 of 3



Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 8/16/2017

20 Duke St., Suite 109 Report No.: 543866 - PLM

Bedford NS B4A 2Z5 Project: DTIE TOSH PLM Sampling

**Project No.:** PE7160 Client: ALL131

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LOQ, Limit of Quantitation estimates for mass and volume analyses.

\*With advance notice and confirmation by the laboratory.

Dated: 8/17/2017 10:58:39 AM Page 3 of 3

<sup>\*\*</sup>Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).

## **PLM Asbestos Bulk Sample Report**

PEI Dept. of Transportation & Infrastructure Energy

Client Information: P.O. Box 2000,

Charlottetown, PE C1A 7N8

Attn: Kevin Kennedy

Project Location: Three Oaks Senior High School

Project Number: PE8043

Date: February 9, 2018



**BACKGROUND**: On February 6, 2018 ALL-TECH Environmental Services Limited collected two (2) bulk material samples of drywall joint compound within the washrooms in Block 300 at Three Oaks Senior High School in Summerside, Prince Edward Island. Sampling was completed to evaluate and to conduct representative sampling of building materials to identify if the materials are asbestos containing.

Samples were analyzed by IATL for Polarized Light Microscopy (PLM) analysis. A summary of results is listed below in Table A.

### **TABLE A**

Sample ID	Material Description / Location	Asbestos Content (%)	Asbestos Content (%) Additional Layers	Photo
TOS-01	Drywall joint compound / Washroom (301)	4.7% Chrysotile	N/D	NA
TOS-02	Drywall joint compound / Washroom (302)	3.1% Chrysotile	N/D	NA

Asbestos containing material is defined under the Prince Edward Island's Occupational Health and Safety Act R.S.P.E.I. 1988, Cap. O-1.01 General Regulations as installed materials containing more than 1% asbestos by dry weight.

If you have any questions regarding this report, please do not hesitate to contact our office (902) 569-0172.

Larry Koughan, CET, CRSP

Branch Manager

Inc. lab certificate of analysis



Client: ALL131

9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

### CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 2/7/2018

20 Duke St., Suite 109 Report No.: 556924 - PLM

Bedford NS B4A 2Z5 Project: TOSH Three Oaks School

> Project No.: PE8043

## PLM BULK SAMPLE ANALYSIS SUMMARY

Lab No.: 6440187 Analyst Observation: Off-White Joint Compound Location: At 300 Block Washroom

Client Description: Joint Compound Client No.: TOS-01 **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

None Detected 95.3 **PC 4.7** Chrysotile

Analyst Observation: Off-White Joint Compound **Lab No.:** 6440188 Location: At 300 Block Washroom

Client No.: TOS-02 Client Description: Joint Compound **Facility:** 

Percent Asbestos: Percent Non-Asbestos Fibrous Material: Percent Non-Fibrous Material:

None Detected 96.9 PC 3.1 Chrysotile

Please refer to the Appendix of this report for further information regarding your analysis.

2/7/2018 Date Received: 02/07/2018

Date Analyzed:

Analyst:

Signature: Nick Daigle

Dated: 2/8/2018 4:00:51 Page 1 of 4 Approved By:

Frank E. Ehrenfeld, III Laboratory Director

Frank Tua



Email: customerservice@iatl.com

### CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 2/7/2018

20 Duke St., Suite 109 Report No.: 556924 - PLM

Bedford NS B4A 2Z5 Project: TOSH Three Oaks School

Client: ALL131 Project No.: PE8043

## Appendix to Analytical Report

**Customer Contact:** 

Method: US EPA 600, R93-116

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: cdavis@iatl.com iATL Account Representative: Cassie Doherty Sample Login Notes: See Batch Sheet Attached Sample Matrix: Bulk Building Materials Exceptions Noted: See Following Pages

### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and ir our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

### **Information Pertinent to this Report:**

Analysis by US EPA 600 93-116: Determination of Asbestos in Bulk Building Materials by Polarized Light Microscopy (PLM).

### Certifications:

- NIST-NVLAP No. 101165-0
- NYSDOH-ELAP No. 11021
- AIHA-LAP, LLC No. 100188

Quantification at <0.25% by volume is possible with this method. (PC) Indicates Stratified Point Count Method performed. (PC-Trace) means that asbestos was detected but is not quantifiable under the Point Counting regimen. Analysis includes all distinct separable layers in accordance with EPA 600 Method. If not reported or otherwise noted, layer is either not present or the client has specifically requested that it not be analyzed (ex. analyze until positive instructions). Small asbestos fibers may be missed by PLM due to resolution limitations of the optical microscope. Therefore, PLM is not consistently reliable in detecting asbestos in non-friable organically bound (NOB) materials. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing.

Analytical Methodology Alternatives: Your initial request for analysis may not have accounted for recent advances in regulatory requirements or advances in technology that are routinely used in similar situations for other qualified projects. You may have the option to explore additional analysis for further information. Below are a few options, listed as the matrix followed by the appropriate methodology. Also included are links to more information on our website.

Bulk Building Materials that are Non-Friable Organically Bound (NOB) by Gravimetric Reduction techniques employing PLM and TEM: ELAP 198.6 (PLM-NOB), ELAP 198.4 (TEM-NOB)

Loose Fill Vermiculite Insulation, Attic Insulation, Zonolite (copyright), etc.: US EPA 600 R-4/004 (multi-tiered analytical process) Sprayed On Insulation/Fireproofing with Vermiculite (SOF-V): ELAP 198.8 (PLM-SOF-V)

Dated: 2/8/2018 4:00:51 Page 2 of 4



Email: customerservice@iatl.com

### CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 2/7/2018

20 Duke St., Suite 109 Report No.: 556924 - PLM

Bedford NS B4A 2Z5 Project: TOSH Three Oaks School

Client: ALL131 Project No.: PE8043

Soil, sludge, sediment, aggregate, and like materials analyzed for asbestos or other elongated mineral particles (ex. erionite, etc.): ASTM D7521, CARB 435, and other options available

Asbestos in Surface Dust according to one of ASTM's Methods (very dependent on sampling collection technique - by TEM): ASTM D 5755, D5756, or D6480

Various other asbestos matrices (air, water, etc.) and analytical methods are available.

### **Disclaimers / Qualifiers:**

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a list with highlighted disclaimers that may be pertinent to this project. For a full explanation of these and other disclaimers, please inquire at **customerservice@iatl.com**.

- 1) Note: No mastic provided for analysis.
- 2) Note: Insufficient mastic provided for analysis.
- 3) Note: Insufficient material provided for analysis.
- 4) Note: Insufficient sample provided for QC reanalysis.
- 5) Note: Different material than indicated on Sample Log / Description.
- 6) Note: Sample not submitted.
- 7) Note: Attached to asbestos containing material.
- 8) Note: Received wet.
- 9) Note: Possible surface contamination.
- 10) Note: Not building material. 1% threshold may not apply.
- 11) Note: Recommend TEM-NOB analysis as per EPA recommendations.
- 12) Note: Asbestos detected but not quantifiable.
- 13) Note: Multiple identical samples submitted, only one analyzed.
- 14) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.080%.
- 15) Note: Analyzed by EPA 600/R-93/116. Point Counting detection limit at 0.125%.

### **Recommendations for Vermiculite Analysis:**

Several analytical protocols exist for the analysis of asbestos in vermiculite. These analytical approaches vary depending upon the nature of the vermiculite mineral being tested (e.g. un-processed gange, homogeneous exfoliated books of mica, or mixed mineral composites). Please contact your client representative for pricing and turnaround time options available.

iATL recommends initial testing using the EPA 600/R-93/116 method. This method is specifically designed for the analysis of asbestos in bulk building materials. It provides an acceptable starting point for primary screening of vermiculite for possible asbestos.

Results from this testing may be inconclusive. EPA suggests proceeding to a multi-tiered analysis involving wet separation techniques in conjunction with PLM and TEM gravimetric analysis (EPA 600/R-04/004).

Further information on this method and other vermiculite and asbestos issues can be found at the following: Agency for Toxic Substances and Disease Registry (ATSDR) www.atsdr.cdc.gov, United States Geological Survey (USGS) www.minerals.usgs.gov/minerals/, US EPA www.epa.gov/asbestos. The USEPA also has an informative brochure "Current Best Practices for Vermiculite Attic Insulation" EPA 747F03001 May 2003, that may assist the health and remediation professional.

The following is a summary of the analytical process outlines in the EPA 600/R-04/004 Method:

1) Analytical Step/Method: Initial Screening by PLM, EPA 600R-93/116

**Requirements/Comments:** Minimum of 0.1 g of sample. ~0.25% LOQ for most samples.

2) Analytical Step/Method: Wet Separation by PLM Gravimetric Technique, EPA R-04/004 Requirements/Comments: Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.

3) Analytical Step/Method: Wet Separation by PLM Gravimetric Technique, EPA R-04/004 Requirements/Comments: Minimum 50g\*\* of dry sample. Analysis of "Floats" only.

4) Analytical Step/Method: Wet Separation by TEM Gravimetric Technique, EPA R-04/004 Requirements/Comments: Minimum 50g\*\* of dry sample. Analysis of "Sinks" only.

5) Analytical Step/Method: Wet Separation by TEM Gravimetric Technique, EPA R-04/004

Dated: 2/8/2018 4:00:52 Page 3 of 4



Email: customerservice@iatl.com

### CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 2/7/2018

20 Duke St., Suite 109 Report No.: 556924 - PLM

Bedford NS B4A 2Z5 Project: TOSH Three Oaks School

Project No.: PE8043

Requirements/Comments: Minimum 50g\*\* of dry sample. Analysis of "Suspension" only.

LOQ, Limit of Quantitation estimates for mass and volume analyses.

\*With advance notice and confirmation by the laboratory.

Client: ALL131

Dated: 2/8/2018 4:00:52 Page 4 of 4

<sup>\*\*</sup>Approximately 1 Liter of sample in double-bagged container (~9x6 inch bag of sample).



Client:

Ph:(902) 569-0172 Fax:(902) 569-5453 Email: Ikoughan @toalltech.com

## ASBESTOS MICROVAC DUST SAMPLE ANALYSIS REPORT

Three Oaks Senior High School – Summerside, PE

PEI Dept. of TIR Date: March 17, 2017

P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Block C – 1C3 (north)

C1A 7N8 Report: 02

Attn: Tyler Richardson

### 1. Details To Be Noted:

On Monday March 13, 2017, ALL-TECH Environmental Services Limited on behalf of our client, PEI Department of TIE collected additional surface dust samples for asbestos analysis in two separate locations beyond the proposed clean up area on the main level corridor outside of the former book room at Three Oaks Senior High School. This additional sampling was completed to establish if elevated asbestos structures were present beyond the clean up area. Sample descriptions and results are outlined below in Table 1.

The sample surface area for the dust samples collected was 100 square centimetres. The samples were sent to IATL Laboratory, New Jersey for analysis by Transmission Electron Microscopy (TEM) following ASTM D5755-95 Standard Test Method for Microvacuum Sampling and Indirect Analysis of Settled Dust by TEM for Asbestos.

The TEM microvac sampling results of the two (2) samples are summarized in the Table 1 below. Please note that results are summarized in total asbestos structures per square centimetre (s/cm<sup>2</sup>).

Table 1
Additional Micro Vac Sample Results – March 13, 2017
Three Oaks Senior High School, Summerside, PEI

Sample #	Sample Surface / Location	Results (s/cm²)	Asbestos Type
C-462	Floor / Lower level – Bottom of stairwell adjacent to elevator	463	Chrysotile
C-463	Floor / Lower level corridor between Classrooms 205 & 206	1390	Chrysotile

### INTERPRETATION OF TEM DUST RESULTS

In Canada, no Provincial or Federal guidelines with respect to settled dust sampling and analysis

exist. However, in the U.S.A., a considerable number of settled dust analyses for asbestos using TEM have been performed following the microvac sampling procedure. Levels of asbestos contamination in settled dust as determined by the microvac technique are considered to be:

- < 1000 s/cm<sup>2</sup> None
- 1.000 10.000 s/cm<sup>2</sup> Low
- 10,000 100,000 s/cm<sup>2</sup> Moderate (above normal)
- > 100,000 s/cm<sup>2</sup> Significant

•

All of these guidelines are based on total asbestos structures. [1]

As Table 1 summarizes, the total asbestos structures detected in the samples C-462 &C-were reported as low. When conditions are noted above normal (> 10,000 s/cm²) additional clean up considerations are made. Therefore, based on the additional sampling in the extended test areas, no additional follow up is required.

#### **CONCLUSIONS & RECOMMENDATIONS**

The objective of TEM microvac sampling is to help make decisions regarding: (1) distinguish surfaces that need special attention; (2) design cleanup protocols for contaminated areas; (3) evaluate cleaning procedures; and (4) assist in abatement clearance.

It should be noted that levels of <10,000 s/cm<sup>2</sup> are considered typical for buildings that contain asbestos and are not considered contaminated.

There is no clearly established correlation between airborne contaminant concentrations and analysis of dust samples. If asbestos fibres are present in dust on a given surface, one must consider the activities which could occur at or near that surface which could cause asbestos fibres to become airborne, resulting in an unacceptable exposure risk to occupants in the vicinity.

We trust this information included in this report is sufficient for your present purposes. Should you have any questions regarding this matter, please do not hesitate to contact me at (902) 629-0173.

Respectfully submitted,

Larry Koughan, CET, CRSP

Project Principal

**ALL-TECH Environmental Services Limited** 

Incl. Laboratory Results

Site Drawing with proposed clean-up area

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH
Chris Keefe PSB

[1] Millette, J.R. and S.M. Hays, <u>Settled Asbestos Dust Sampling and Analysis</u>, Lewis Publishers, London, 1994, pp: 49-51



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

## **CERTIFICATE OF ANALYSIS**

Client: **ALL-TECH Environmental Services Limited** 

> 20 Duke St., Suite 109 Bedford NS B4A 2Z5

Client: ALL131

**Report Date:** 3/16/2017

Report No.: 531908 - TEM Dust Microvac

**Project:** TOSH **Project No.:** PE7056

#### TEM DUST SAMPLE ANALYSIS SUMMARY

Lab No.:6176158 Client No.: C-462

**Asbestos Type(s):** 

Area (cm<sup>2</sup>):100

Location: Floor/Lower Level Bottom Of Stairwell Adjacent To Elevator

**Density (s/mm<sup>2</sup>):19.2** Concentration (s/cm<sup>2</sup>):463

Chrysotile

Lab No.:6176159 Client No.: C-463 Asbestos Type(s): Chrysotile

Area (cm<sup>2</sup>):100

Location: Floor/Lower Level Corridor Between Concentration (s/cm²): 1390

Classroom 205-206

**Density (s/mm<sup>2</sup>):57.7** 

Please refer to the Appendix of this report for further information regarding your analysis.

**Date Received:** 

3/16/2017

Date Analyzed:

03/16/2017

Signature: **Analyst:** 

Craig Liska

Approved By:

Frank E. Ehrenfeld, III

Laboratory Director

Dated: 3/16/2017 3:37:52 PM Page 1 of 3



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 3/16/2017

20 Duke St., Suite 109 Report No.: 531908 - TEM Dust Microvac

Bedford NS B4A 2Z5 **Project:** TOSH Project No.: PE7056

Client: ALL131

## Appendix to Analytical Report:

**Customer Contact:** 

Analysis: ASTM D5755-09

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: cdavis@iatl.com iATL Account Representative: Alyssa Peiffer Sample Login Notes: See Batch Sheet Attached

Sample Matrix: Cassettes

**Exceptions Noted:** See Following Pages

#### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

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#### **Information Pertinent to this Report:**

Analysis by ASTM D5755-09

Please see our list of international, national, state, provincial, and local certifications at www.iatl.com

TEM settled dust results are dependent upon several factors, including sampling technique. iATL can supply references that may aid in the interpretation of results.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Method requires submittal of blanks for analysis. Sample results are not corrected for contamination by field or analytical blanks.

#### **Disclaimers / Qualifiers:**

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

(1)Note: Sample not analyzed.

(2)Note: Sample not analyzed at request of client.

(3)Note: Sample analysis terminated. Clearance criteria exceeded (average >70.0 s/mm<sup>2</sup>). Set fails by AHERA 40 CFR 763.

(4)Note: Heavy loading (>0.1 s/cc) of non-asbestos particulate that might prohibit the required morphological, diffraction and elemental identification of asbestos. The absence of asbestos on the sample can not be concluded. Analysis for informational purposes only.

(5)Note: Heavy loading (>10% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>10%). Sample voided by AHERA 40 CFR 763.

(5A)Note: Heavy loading (>25% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>25%). Sample voided by NIOSH

(6)Note: Sample turbidity > 1.0 NTU. Therefore MDL >> 0.1 MFL. Does not meet National Primary Drinking Water Standards.

Dated: 3/16/2017 3:37:52 PM Page 2 of 3



# **CERTIFICATE OF ANALYSIS**

Client: ALL-TECH Environmental Services Limited Report Date: 3/16/2017

20 Duke St., Suite 109 Report No.: 531908 - TEM Dust Microvac

Bedford NS B4A 2Z5 Project: TOSH
Project No.: PE7056

Client: ALL131

(7)Note: Sample integrity compromised. Received sample cassette with top open (40 CFR 763 c-e).

(8)Note: Received sample cassettes with portion of filter missing. "PCM re-prep"

(9)Note: Void - overloaded, unable to prep.

(10)Note: Void - filter damaged. (11)Note: No volume supplied.

(12)Note: Heavy loading (>0.1 s/cc) of non-asbestos / non-fibrous particulate.

(13)Note: Method analytical sensitivity of <0.003 s/cc not attained due to volume of air sampled. NIOSH requires a minimum of 400L.

(13A)Note: Volume does not meet AHERA requirements.(<1188 L)

(14)Note: Geometric Mean = 0.xxxx Structures/cc

(15)Note: Samples received on 0.8 micron PCM filters. Samples must be submitted on 0.45 micron filter cassettes per AHERA guidelines

(18)Note: \*Results are for informational purposes only. Samples received on 0.8um PCM cassettes. Per AHERA 40 CFR 763 guidelines samples must be obtained on a

0.45um cassette.

Dated: 3/16/2017 3:37:52 PM Page 3 of 3



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited

20 Duke St.. Suite 109

Bedford NS B4A 2Z5

Client: ALL131

Report Date: 3/16/2017

Report No.: 531908 - TEM Dust Microvac

**TOSH Project: Project No.:** PE7056

#### TEM DUST SAMPLE ANALYSIS DETAILS

Lab No.:6176158 Client No.: C-462

Volume Filtered (mL):20 Dilution Factor (mL):50 **Grid Openings:4** 

Opening Area (mm<sup>2</sup>):0.013 Area Analyzed (mm<sup>2</sup>):0.0520 Sensitivity (s/mm<sup>2</sup>):19.2 Detection Limit (s/cm<sup>2</sup>):463

Micrograph Number: **EDXA Spectrum ID:** 

Lab No.:6176159 Client No.: C-463

Volume Filtered (mL):20 Dilution Factor (mL):50

**Grid Openings:4** Opening Area (mm<sup>2</sup>):0.013 Area Analyzed (mm<sup>2</sup>):0.0520 Sensitivity (s/mm<sup>2</sup>):19.2 Detection Limit (s/cm<sup>2</sup>):463

Micrograph Number: **EDXA Spectrum ID:** 

Area Sampled (cm<sup>2</sup>):100

Location: Floor/Lower Level Bottom Of

Stairwell Adjacent To Elevator

**Asbestos Structures: 1** Structures < 5 µm: None Detected

Structures  $\geq 5 \mu m: 1$ 

Structure Density (s/mm<sup>2</sup>): 19.2 Structure Concentration (s/cm<sup>2</sup>):463

Asbestos Type(s):

Chrysotile

Filter Type: MCE Filter Size (mm<sup>2</sup>):962 Pore Size (µm): 0.45

Non-Asbestos Structures: None Detected Structure Density (s/mm<sup>2</sup>):<19.2 Structure Concentration (s/cm<sup>2</sup>):<463

Non-Asbestos Type(s):

None Detected

Area Sampled (cm<sup>2</sup>):100

Location: Floor/Lower Level Corridor Between

Classroom 205-206 Asbestos Structures: 3 Structures < 5 µm:3

Structures  $\geq 5 \mu m$ : None Detected Structure Density (s/mm<sup>2</sup>):57.7 Structure Concentration (s/cm<sup>2</sup>): 1390

Asbestos Type(s):

Chrysotile

Filter Type:MCE Filter Size (mm<sup>2</sup>):962 Pore Size (µm):0.45

Non-Asbestos Structures: None Detected Structure Density (s/mm<sup>2</sup>):<19.2 Structure Concentration (s/cm<sup>2</sup>):<463

Non-Asbestos Type(s):

None Detected

Please refer to the Appendix of this report for further information regarding your analysis.

**Date Received:** 

3/16/2017

Date Analyzed:

03/16/2017

Signature:

Craig Liska **Analyst:** 

Approved By:

Frank E. Ehrenfeld, III

Laboratory Director

Dated: 3/16/2017 3:37:53 PM Page 1 of 2



# CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited

20 Duke St.,Suite 109 Bedford NS B4A 2Z5

Client: ALL131

**Report Date:** 3/16/2017

**Report No.:** 531908 - TEM Dust Microvac

**Project:** TOSH **Project No.:** PE7056

Dated: 3/16/2017 3:37:53 PM Page 2 of 2



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>lkoughan@toalltech.com</u>

## ASBESTOS MICROVAC DUST SAMPLE ANALYSIS REPORT Three Oaks Senior High School – Summerside, PE

Client: PEI Dept. of TIR Date: March 13, 2017

P.O. Box 2000 Project No.: PE7056

Charlottetown, PEI Location: Block C – 1C3 (north)

C1A 7N8

Attn: Tyler Richardson

#### 1. Details To Be Noted:

On Friday March 10, 2017, ALL-TECH Environmental Services Limited on behalf of our client, PEI Department of TIE collected surface dust samples for asbestos analysis in various areas outside of the affected area of the former school board / book room at Three Oaks Senior High School. This sampling was completed to establish if any asbestos structures were present beyond the affected area previous identified following the disturbance of asbestos containing ceiling tiles. ALL-TECH personnel collected five (5) microvac dust samples from various adjacent spaces. Sample descriptions and results are outlined below in Table 1.

The sample surface area for the dust samples collected was 100 square centimetres. The samples were sent to IATL Laboratory, New Jersey for analysis by Transmission Electron Microscopy (TEM) following ASTM D5755-95 Standard Test Method for Microvacuum Sampling and Indirect Analysis of Settled Dust by TEM for Asbestos.

The TEM microvac sampling results of the five (5) samples are summarized in the Table 1 below. Please note that results are summarized in total asbestos structures per square centimetre (s/cm<sup>2</sup>).

Table 1
Micro Vac Sample Results
Three Oaks Senior High School, Summerside, PEI

Sample #	Sample Surface / Location	Results (s/cm²)	Asbestos Type
C-456	Top of shelf / Room 420	Non Detected	None Detected
C-457	Floor / Main level corridor outside book storage	1,130,000	Chrysotile
C-458	Floor / 2nd Level stairwell outside Rm 420	Non Detected	None Detected

Sample #	Sample Surface / Location	Results (s/cm²)	Asbestos Type
C-459	Floor / Former ELSB office area	5,920,000	Chrysotile
C-460	Floor / Main level former book storage area	5,180,000	Chrysotile

#### INTERPRETATION OF TEM DUST RESULTS

In Canada, no Provincial or Federal guidelines with respect to settled dust sampling and analysis exist. However, in the U.S.A., a considerable number of settled dust analyses for asbestos using TEM have been performed following the microvac sampling procedure. Levels of asbestos contamination in settled dust as determined by the microvac technique are considered to be:

- < 1000 s/cm<sup>2</sup> None
- 1,000 10,000 s/cm<sup>2</sup> Low
- 10,000 100,000 s/cm<sup>2</sup> Moderate (above normal)
- > 100,000 s/cm<sup>2</sup> Significant

•

All of these guidelines are based on total asbestos structures. [1]

As Table 1 summarizes, the total asbestos structures detected in the samples C-457, C-459 & C-460 were reported as significant and therefore, require asbestos clean-up procedures for the areas tested. Samples C-459 & Samples C-460 were taken inside the presumed asbestos contamination area of the former school board office. Sample C-457 was taken in the corridor outside of the affected area. The other samples (C-456 & C458) were reported as NONE DETECTED and therefore require no additional follow up.

#### **CONCLUSIONS & RECOMMENDATIONS**

The objective of TEM microvac sampling is to help make decisions regarding: (1) distinguish surfaces that need special attention; (2) design cleanup protocols for contaminated areas; (3) evaluate cleaning procedures; and (4) assist in abatement clearance.

It should be noted that levels of <10,000 s/cm<sup>2</sup> are considered typical for buildings that contain asbestos and are not considered contaminated.

With regards to the asbestos presence in the dust that was sampled in the various adjacent area of the affected area, it is clear that the suspected contamination area of the former school board office and the adjoining book storage area require asbestos clean-up of contaminated surfaces. In addition, the corridor outside of the affected area shall also undergo the same asbestos clean-up procedures. This area has been designated as an asbestos clean-up area and has been expanded into other storage and staff rooms in the back corridor area of the school. Additional dust samples shall be taken beyond the corridor area beyond classroom 114 to evaluate conditions beyond the proposed clean up area (see attached drawing).

There is no clearly established correlation between airborne contaminant concentrations and analysis of dust samples. If asbestos fibres are present in dust on a given surface, one must consider the activities which could occur at or near that surface which could cause asbestos fibres to become airborne, resulting in an unacceptable exposure risk to occupants in the vicinity.

We trust this information included in this report is sufficient for your present purposes. Should you have any questions regarding this matter, please do not hesitate to contact me at (902) 629-0173.

Respectfully submitted,

Larry Koughan, CET, CRSP

Project Principal

**ALL-TECH Environmental Services Limited** 

Incl. Laboratory Results

Site Drawing with proposed clean-up area

cc Kevin Kennedy DTIE
lan Harper APM
Pat Ramsay APM
Gerald Maccormack TOSH

[1] Millette, J.R. and S.M. Hays, <u>Settled Asbestos Dust Sampling and Analysis</u>, Lewis Publishers, London, 1994, pp: 49-51



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

## **CERTIFICATE OF ANALYSIS**

Client: ALL-TECH Environmental Services Limited

20 Duke St.. Suite 109 Bedford NS B4A 2Z5

Client: ALL131

Report Date: 3/13/2017

Report No.: 531730 - TEM Dust Microvac

**Project: TOSH Project No.:** PE7056

#### TEM DUST SAMPLE ANALYSIS SUMMARY

Lab No.:6173121 Client No.: C-456 **Asbestos Type(s):** 

None Detected

Area (cm<sup>2</sup>):100

**Location:** Top Of Shelf / Room 420

**Density (s/mm<sup>2</sup>):**<9.62

Concentration (s/cm<sup>2</sup>):<925

Lab No.:6173122 Client No.: C-457

Area (cm<sup>2</sup>):100

**Location:** Floor / Main Level Corridor Outside

**Density (s/mm<sup>2</sup>):2350** 

Concentration (s/cm<sup>2</sup>):1130000

**Asbestos Type(s):** Chrysotile

**Book Storage** 

Lab No.:6173123 Client No.: C-458 Area (cm<sup>2</sup>):100

Location: Floor / 2nd Level Stairwell Outside

**Density (s/mm<sup>2</sup>):**<9.62 Concentration (s/cm<sup>2</sup>):<925

**Asbestos Type(s):** None Detected

Area (cm<sup>2</sup>):100 Location: Floor / Former ELSB Office Area **Density (s/mm<sup>2</sup>):**6150

Concentration (s/cm<sup>2</sup>):5920000

Client No.: C-459 **Asbestos Type(s):** Chrysotile

Lab No.:6173125

Client No.: C-460 Asbestos Type(s):

Lab No.:6173124

Chrysotile

Area (cm<sup>2</sup>):100

Location: Floor / Main Level Former Book

Storage Area

**Density (s/mm<sup>2</sup>):5380** 

Concentration (s/cm<sup>2</sup>):5180000

Please refer to the Appendix of this report for further information regarding your analysis.

**Date Received:** 

3/11/2017

Date Analyzed:

03/13/2017

Signature: **Analyst:** 

Ben Reich

Approved By:

Frank E. Ehrenfeld, III

Laboratory Director

Dated: 3/13/2017 11:34:45 AM Page 1 of 3



9000 Commerce Parkway Suite B Mt. Laurel, New Jersey 08054 Telephone: 856-231-9449

Email: customerservice@iatl.com

## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited Report Date: 3/13/2017

20 Duke St., Suite 109 Report No.: 531730 - TEM Dust Microvac

Bedford NS B4A 2Z5 **Project:** TOSH Project No.: PE7056

Client: ALL131

## Appendix to Analytical Report:

**Customer Contact:** 

Analysis: ASTM D5755-09

This appendix seeks to promote greater understanding of any observations, exceptions, special instructions, or circumstances that the laboratory needs to communicate to the client concerning the above samples. The information below is used to help promote your ability to make the most informed decisions for you and your customers. Please note the following points of contact for any questions you may have.

iATL Customer Service: customerservice@iatl.com

iATL Office Manager: cdavis@iatl.com iATL Account Representative: Alyssa Peiffer Sample Login Notes: See Batch Sheet Attached

Sample Matrix: Cassettes

**Exceptions Noted:** See Following Pages

#### General Terms, Warrants, Limits, Qualifiers:

General information about iATL capabilities and client/laboratory relationships and responsibilities are spelled out in iATL policies that are listed at www.iATL.com and in our Quality Assurance Manual per ISO 17025 standard requirements. The information therein is a representation of iATL definitions and policies for turnaround times, sample submittal, collection media, blank definitions, quantification issues and limit of detection, analytical methods and procedures, sub-contracting policies, results reporting options, fees, terms, and discounts, confidentiality, sample archival and disposal, and data interpretation.

iATL warrants the test results to be of a precision normal for the type and methodology employed for each sample submitted. iATL disclaims any other warrants, expressed or implied, including warranty of fitness for a particular purpose and warranty of merchantability. iATL accepts no legal responsibility for the purpose for which the client uses test results. Any analytical work performed must be governed by our Standard Terms and Conditions. Prices, methods and detection limits may be changed without notification. Please contact your Customer Service Representative for the most current information.

This confidential report relates only to those item(s) tested and does not represent an endorsement by NIST-NVLAP, AIHA LAP LLC, or any agency of local, state or province governments nor of any agency of the U.S. government.

This report shall not be reproduced except in full, without written approval of the laboratory.

#### **Information Pertinent to this Report:**

Analysis by ASTM D5755-09

Please see our list of international, national, state, provincial, and local certifications at www.iatl.com

TEM settled dust results are dependent upon several factors, including sampling technique. iATL can supply references that may aid in the interpretation of results.

All results are based on the samples as received at the lab. iATL assumes that appropriate sampling methods have been used and that the data upon which these results are based have been accurately supplied by the client.

Method requires submittal of blanks for analysis. Sample results are not corrected for contamination by field or analytical blanks.

#### **Disclaimers / Qualifiers:**

There may be some samples in this project that have a "NOTE:" associated with a sample result. We use added disclaimers or qualifiers to inform the client about something that requires further explanation. Here is a complete list with highlighted disclaimers pertinent to this project. For a full explanation of these and other disclaimers, please inquire at customerservice@iatl.com.

(1)Note: Sample not analyzed.

(2)Note: Sample not analyzed at request of client.

(3)Note: Sample analysis terminated. Clearance criteria exceeded (average >70.0 s/mm<sup>2</sup>). Set fails by AHERA 40 CFR 763.

(4)Note: Heavy loading (>0.1 s/cc) of non-asbestos particulate that might prohibit the required morphological, diffraction and elemental identification of asbestos. The absence of asbestos on the sample can not be concluded. Analysis for informational purposes only.

(5)Note: Heavy loading (>10% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>10%). Sample voided by AHERA 40 CFR 763.

(5A)Note: Heavy loading (>25% per grid opening) non-fibrous particulate. Sample analysis terminated. Clearance criteria exceeded (>25%). Sample voided by NIOSH

(6)Note: Sample turbidity > 1.0 NTU. Therefore MDL >> 0.1 MFL. Does not meet National Primary Drinking Water Standards.

Dated: 3/13/2017 11:34:45 AM Page 2 of 3



# **CERTIFICATE OF ANALYSIS**

Client: ALL-TECH Environmental Services Limited Report Date: 3/13/2017

20 Duke St., Suite 109 Report No.: 531730 - TEM Dust Microvac

Bedford NS B4A 2Z5 Project: TOSH
Project No.: PE7056

Client: ALL131

(7)Note: Sample integrity compromised. Received sample cassette with top open (40 CFR 763 c-e).

(8)Note: Received sample cassettes with portion of filter missing. "PCM re-prep"

(9)Note: Void - overloaded, unable to prep.

(10)Note: Void - filter damaged. (11)Note: No volume supplied.

(12)Note: Heavy loading (>0.1 s/cc) of non-asbestos / non-fibrous particulate.

(13)Note: Method analytical sensitivity of <0.003 s/cc not attained due to volume of air sampled. NIOSH requires a minimum of 400L.

(13A)Note: Volume does not meet AHERA requirements.(<1188 L)

(14)Note: Geometric Mean = 0.xxxx Structures/cc

(15)Note: Samples received on 0.8 micron PCM filters. Samples must be submitted on 0.45 micron filter cassettes per AHERA guidelines

(18)Note: \*Results are for informational purposes only. Samples received on 0.8um PCM cassettes. Per AHERA 40 CFR 763 guidelines samples must be obtained on a

0.45um cassette.

Dated: 3/13/2017 11:34:45 AM Page 3 of 3



## **CERTIFICATE OF ANALYSIS**

Client: ALL-TECH Environmental Services Limited

20 Duke St.. Suite 109

Bedford NS B4A 2Z5

Client: ALL131

Report Date: 3/13/2017

Report No.: 531730 - TEM Dust Microvac

**TOSH Project:** PE7056 **Project No.:** 

#### TEM DUST SAMPLE ANALYSIS DETAILS

Lab No.:6173121

Client No.: C-456

Volume Filtered (mL):5 Dilution Factor (mL):50 **Grid Openings:**8

Opening Area (mm<sup>2</sup>):0.013 Area Analyzed (mm<sup>2</sup>):0.104 Sensitivity (s/mm<sup>2</sup>):9.62 Detection Limit (s/cm<sup>2</sup>):925

Micrograph Number: **EDXA Spectrum ID:** 

Lab No.:6173122

Client No.: C-457

Volume Filtered (mL):1 Dilution Factor (mL):50 **Grid Openings:**2

Opening Area (mm<sup>2</sup>):0.013 Area Analyzed (mm<sup>2</sup>):0.0260

Sensitivity (s/mm<sup>2</sup>):38.5 Detection Limit (s/cm<sup>2</sup>): 18500

**Micrograph Number:** 

**EDXA Spectrum ID:** Lab No.:6173123

Volume Filtered (mL):5 Dilution Factor (mL):50 **Grid Openings:**8 Opening Area (mm<sup>2</sup>):0.013

Area Analyzed (mm<sup>2</sup>):0.104 Sensitivity (s/mm<sup>2</sup>):9.62 Detection Limit (s/cm<sup>2</sup>):925 Micrograph Number: **EDXA Spectrum ID:** 

Area Sampled (cm<sup>2</sup>):100

Location: Top Of Shelf / Room 420

Structures < 5 µm: None Detected Structures  $\geq 5 \mu m$ : None Detected Structure Density (s/mm<sup>2</sup>):<9.62 Structure Concentration (s/cm<sup>2</sup>):<925

Asbestos Type(s):

**Asbestos Structures:** None Detected

None Detected

Area Sampled (cm<sup>2</sup>):100

Location: Floor / Main Level Corridor Outside

**Book Storage** 

Asbestos Structures: 61 Structures  $< 5 \mu m: 32$ Structures  $\geq 5 \mu m: 29$ 

Structure Density (s/mm<sup>2</sup>):2350

Structure Concentration (s/cm<sup>2</sup>): 1130000

Asbestos Type(s):

Chrysotile

Filter Type: MCE

Filter Size (mm<sup>2</sup>):962 Pore Size (µm): 0.45

Non-Asbestos Structures: None Detected Structure Density (s/mm<sup>2</sup>):<9.62 Structure Concentration (s/cm<sup>2</sup>):<925

Non-Asbestos Type(s):

None Detected

Filter Type:MCE Filter Size (mm<sup>2</sup>):962

Pore Size (µm):0.45 Non-Asbestos Structures: None Detected

Structure Density (s/mm<sup>2</sup>):<38.5

Structure Concentration (s/cm<sup>2</sup>):<18500

Non-Asbestos Type(s):

None Detected

Area Sampled (cm<sup>2</sup>):100

Client No.: C-458 Location: Floor / 2nd Level Stairwell Outside

Rm 420

Asbestos Structures: None Detected Structures < 5 μm: None Detected Structures  $\geq 5 \mu m$ : None Detected Structure Density (s/mm<sup>2</sup>):<9.62 Structure Concentration (s/cm<sup>2</sup>):<925

**Asbestos Type(s):** None Detected

Filter Type:MCE Filter Size (mm<sup>2</sup>):962 Pore Size (µm): 0.45

Non-Asbestos Structures: None Detected Structure Density (s/mm<sup>2</sup>):<9.62 Structure Concentration (s/cm²):<925

Non-Asbestos Type(s):

None Detected

Please refer to the Appendix of this report for further information regarding your analysis.

**Date Received:** 

3/11/2017

Date Analyzed:

03/13/2017

Signature: **Analyst:** 

Ben Reich

Approved By:

Frank E. Ehrenfeld, III

Laboratory Director

Dated: 3/13/2017 11:34:46 AM Page 1 of 3



## CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited

20 Duke St. Suite 109

Bedford NS B4A 2Z5

Client: ALL131

**Report Date:** 3/13/2017

**Report No.:** 531730 - TEM Dust Microvac

**Project:** TOSH **Project No.:** PE7056

#### TEM DUST SAMPLE ANALYSIS DETAILS

Lab No.:6173124

Client No.: C-459

Volume Filtered (mL):0.5 Dilution Factor (mL):50

Grid Openings: 1

Opening Area (mm²):0.013 Area Analyzed (mm²):0.0130

Sensitivity (s/mm<sup>2</sup>):76.9 Detection Limit (s/cm<sup>2</sup>):74000

Micrograph Number: EDXA Spectrum ID:

Lab No.:6173125 Client No.:C-460

Volume Filtered (mL): 0.5 Dilution Factor (mL): 50

Grid Openings: 1

Opening Area (mm²):0.013 Area Analyzed (mm²):0.0130 Sensitivity (s/mm²):76.9 Detection Limit (s/cm²):74000

Micrograph Number: EDXA Spectrum ID:

Area Sampled (cm<sup>2</sup>):100

Location: Floor / Former ELSB Office Area

Asbestos Structures:80 Structures < 5 µm:80

Structures  $\geq 5 \mu m$ : None Detected Structure Density (s/mm<sup>2</sup>):  $\underline{6150}$ 

Structure Concentration (s/cm²): 5920000

Asbestos Type(s):

Chrysotile

Area Sampled (cm²): 100

Location: Floor / Main Level Former Book

Storage Area

Asbestos Structures:70 Structures < 5 µm:20 Structures ≥ 5 µm:50

Structure Density (s/mm<sup>2</sup>):5380

Structure Concentration (s/cm<sup>2</sup>):5180000

Asbestos Type(s):

Chrysotile

Filter Type:MCE

Filter Size (mm<sup>2</sup>):962 Pore Size (µm):0.45

Non-Asbestos Structures: None Detected Structure Density (s/mm²): <76.9

Structure Concentration (s/cm²):<74000

**Non-Asbestos Type(s):** 

None Detected

Filter Type: MCE Filter Size (mm²): 962

Pore Size (µm): 0.45

Non-Asbestos Structures: None Detected Structure Density (s/mm²):<76.9

Structure Concentration (s/cm²):<74000

Non-Asbestos Type(s):

None Detected

Please refer to the Appendix of this report for further information regarding your analysis.

**Date Received:** 

3/11/2017

Date Analyzed:

03/13/2017

Signature: Analyst:

Ben Reich

Approved By:

Frank E. Ehrenfeld, III

Laboratory Director

Dated: 3/13/2017 11:34:46 AM Page 2 of 3



# CERTIFICATE OF ANALYSIS

Client: ALL-TECH Environmental Services Limited

20 Duke St.,Suite 109 Bedford NS B4A 2Z5

Client: ALL131

**Report Date:** 3/13/2017

**Report No.:** 531730 - TEM Dust Microvac

Project: TOSH
Project No.: PE7056

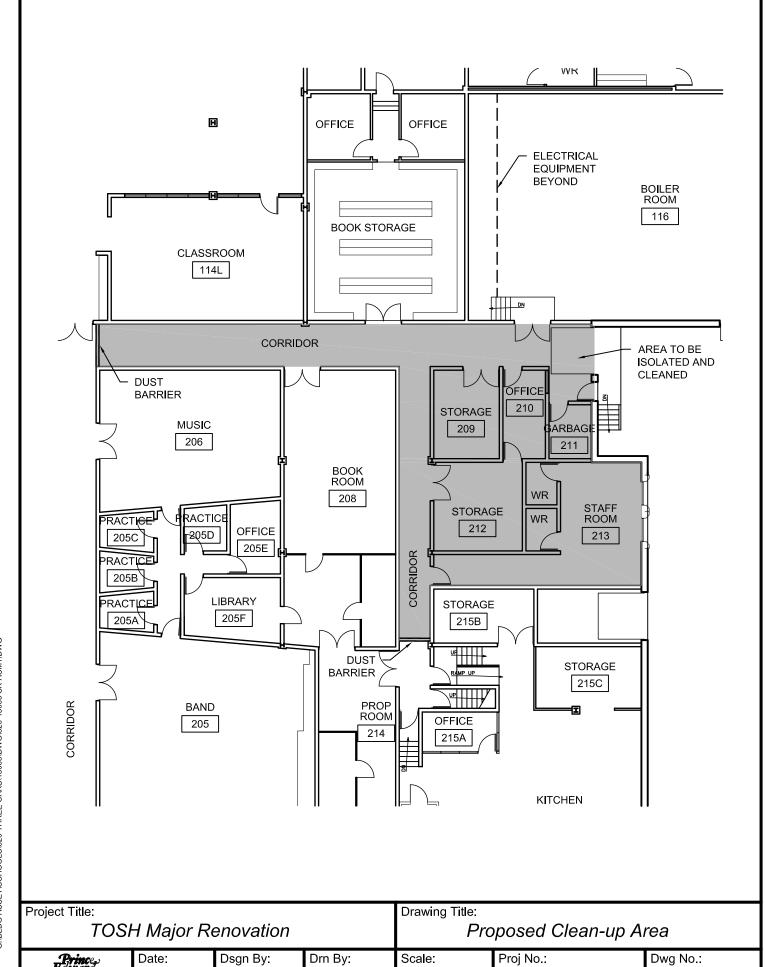
Dated: 3/13/2017 11:34:46 AM Page 3 of 3

Mar. 13, '17

KJK

ADR

1:200



620 - 15005

SK-ACM1



Ph:(902) 569-0172 Fax:(902) 569-5453

Email: <u>lkoughan@toalltech.com</u>

## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: March 28<sup>th</sup>, 2018

Project No.: PE7056 Location: 2B1 Report No.: 104

#### 1. Details To Be Noted:

On March 28<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside 500 Block (2B1) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the ductwork work that contained asbestos duct sealant.

One (1) clearance samples were collected during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-274	11:10 (am)	30	15	A-11	750	Block 500 (2B1) * Clearance Sample	N/D

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

	2
Number of Units Operating Effectively	$\sqrt{}$
Minimum -0.02" H <sub>2</sub> O Maintained	V
Filters Inspected and Changed as Required	V

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

## 6. Dust Control

Wet Wiping Techniques	V
Amended Water	V
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	$\sqrt{}$
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	5
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: \_Meal maille

**Neal Millman, CET** 

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

СС	Kevin Kennedy	DTIE
	lan Harper	APM
	Dave Wadden	APM
	Jody MacIntyre	APM
	Gerald McCormack	TOSH



Ph:(902) 569-0172 Fax:(902) 569-5453 Email: lkoughan@toalltech.com

## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: April 24<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A1 Report No.: 105

#### 1. Details To Be Noted:

On April 24th, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside 100 Block (1A1) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the window frames that contained asbestos hard board.

One (1) clearance samples was collected inside each enclosure with a total of five windows taken out during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-70	9:35 (am)	30	15	R-3	450	Block 100 (1A1) Room 203 * Clearance Sample	N/D
√D-73	10:10 (am)	30	15	R-3	450	Block 100 (1A1) Room 204  * Clearance Sample	N/D
√D-72	10:45 (am)	30	15	R-3	450	Block 100 (1A1) Room 205 * Clearance Sample	N/D
√D-68	11:35 (am)	30	15	R-3	450	Block 100 (1A1) Room 206 * Clearance Sample	N/D
√D-71	12:06 (pm)	30	15	R-3	450	Block 100 (1A1) Room 210 * Clearance Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is

primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	N/A
Filters Inspected and Changed as Required	N/A

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	
Amended Water	V
Negative Air Filtration	V

#### 7. Waste Management

Waste properly double bagged before leaving site	V
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	
ACM bagged as work progresses	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	5
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: \_ Meal mille

**Neal Millman, CET** 

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
Dave Wadden APM
Jody MacIntyre APM
Gerald McCormack TOSH



Ph:(902) 569-0172 Fax:(902) 569-5453 Email: lkoughan@toalltech.com

# ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy D

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: April 25<sup>th</sup>, 2018

Project No.: PE7056 Location: 1A1 Report No.: 106

#### 1. Details To Be Noted:

On April 25<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside 100 Block (1A2) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the window frames that contained asbestos hard board.

One (1) clearance samples was collected inside each enclosure with a total of four windows taken out during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-74	11:45 (am)	30	15	R-4	450	Block 100 (1A2) 2 <sup>nd</sup> Level Window #1 * Clearance Sample	N/D
√D-76	11:45 (am)	30	15	A-11	450	Block 100 (1A2) 2 <sup>nd</sup> Level Window #2 * Clearance Sample	N/D
√D-72	11:45 (am)	30	15	R-3	450	Block 100 (1A2) 2 <sup>nd</sup> Level Window #3 * Clearance Sample	N/D
√D-75	1:15 (pm)	30	15	R-4	450	Block 100 (1A1) 1st Level Corridor Window * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8  $\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

#### 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H₂O Maintained	N/A
Filters Inspected and Changed as Required	N/A

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	
Amended Water	V
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	$\checkmark$
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	√ ·
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal Mille

Neal Millman, CET

Senior Environmental Consultant

## ALL-TECH Environmental Services Limited

CC	Kevin Kennedy	DTIE
	lan Harper	APM
	Dave Wadden	APM
	Jody MacIntyre	APM
	Gerald McCormack	TOSH



Ph:(902) 569-0172 Fax:(902) 569-5453 Email: Ikoughan@toalltech.com

## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI C1A 7N8

Attn: Tyler Richardson

Date: April 27<sup>th</sup>, 2018 Project No.: PE7056

Location: 1A1 Report No.: 107

#### 1. Details To Be Noted:

On April 27<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside 100 Block (1A2) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the window frame that contained asbestos hard board.

One (1) clearance samples was collected inside the enclosure with a total of one windows was taken out during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-273	9:30 (am)	30	15	A-11	450	Block 100 (1A2) 1st Level Room 212 * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8 µ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	N/A
Filters Inspected and Changed as Required	N/A

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	$\sqrt{}$
Amended Water	V
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	$\sqrt{}$
Waste transfer manifest documentation	

## 8. Work Site Cleanliness

General House Keeping	$\checkmark$
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	1

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal mille

Neal Millman, CET

# Senior Environmental Consultant ALL-TECH Environmental Services Limited

СС	Kevin Kennedy	DTIE
	Ian Harper	APM
	Dave Wadden	APM
	Jody MacIntyre	APM
	Gerald McCormack	TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: May 9<sup>th</sup>, 2018

Project No.: PE7056 Location: 1B5 Report No.: 109

#### 1. Details to be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On May 9<sup>th</sup>, 2018 ALL-TECH consultant Neal Millman conducted inspections during today's shift within Block 1B5. During the inspection, it was noted that all barriers were in place and proper negative was attained.

During the work site inspection, all asbestos containing material were noted removed in room 209, corridor outside room 213, and the kitchen. Workers were removing asbestos containing floor tiles and ceiling tiles within these areas. The removal of ceiling tiles in the cafeteria will be ongoing for the rest of the week. Good housing keep was noted with amended water being utilized.

Six (6) negative air units were in operation and proper negative air was attained; noted at -0.022 H<sub>2</sub>O.

Three (3) perimeter samples were collected during today's shift, details are below for the samples location.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D.85	9:55 (am)	75	15	R-4	1125	Block 1B5 1 <sup>st</sup> Level Kitchen outside Cafeteria * Perimeter Sample	N/D
√D.86	10:00 (am)	70	15	R-3	1050	Block 1B5 1 <sup>st</sup> Level Room 209 * Perimeter Sample	N/D
√D.84	11:15 (am)	30	15	R-3	450	Block 1B5 1st Level Corridor outside Room 213 * Perimeter Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental

Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	Yes
Filters Inspected and Changed as Required	Yes

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	$\sqrt{}$
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	V
Amended Water	V
Negative Air Filtration	V

#### 7. Waste Management

Waste properly double bagged before leaving site	V
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	V	
ACM bagged as work progresses	V	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal mille

Neal Millman, CET

# Senior Environmental Consultant ALL-TECH Environmental Services Limited

СС	Kevin Kennedy	DTIE
	lan Harper	APM
	Dave Wadden	APM
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	Gerald McCormack	TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: May 10<sup>th</sup>, 2018

Project No.: PE7056 Location: 1B5 Report No.: 110

#### 1. Details to be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On May 10<sup>th</sup>, 2018 ALL-TECH consultant Neal Millman conducted inspections during today's shift within Block 1B5. During the inspection, it was noted that all barriers were in place and proper negative was attained.

During the work site inspection, all asbestos containing material were noted removed in room 213, 211, 216, and the kitchen. Workers were removing asbestos containing floor tiles and ceiling tiles within these areas. The removal of ceiling tiles in the cafeteria will be ongoing for the rest of the week. Good housing keep was noted with amended water being utilized.

Six (6) negative air units were in operation and proper negative air was attained; noted at -0.022 H<sub>2</sub>O.

Six (6) clearance samples were collected during today's shift, details are below for the samples location.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D.88	10:35 (am)	30	15	A-11	450	Block 1B5 1 <sup>st</sup> Level Room #211 * Clearance Sample	N/D
√D.89	10:30 (am)	35	15	R-4	525	Block 1B5 1 <sup>st</sup> Level Room 213 * Clearance Sample	N/D
√D.91	10:35 (am)	30	15	R-3	450	Block 1B5 1 <sup>st</sup> Level Kitchen glove bag * Clearance Sample	N/D
√D.87	11:10 (am)	30	15	A-11	450	Block 1B5 1st Level Cafeteria Room 216 * Clearance Sample	N/D

√D.90	11:12 (am)	30	15	R-4	450	Block 1B5 1st Level Cafeteria Room 216 * Clearance Sample	N/D
√C.831	11:13 (am)	30	15	R-3	450	Block 1B5 1 <sup>st</sup> Level Cafeteria Room 216 * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8μ m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

### 4. Negative Air Pressure

Number of Units Operating Effectively	6
Minimum -0.02" H <sub>2</sub> O Maintained	Yes
Filters Inspected and Changed as Required	Yes

#### 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	V
Amended Water	V
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	V
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	V
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal mille

Neal Millman, CET

Senior Environmental Consultant
ALL-TECH Environmental Services Limited

СС	Kevin Kennedy	DTIE
	lan Harper	APM
	Dave Wadden	APM
	Jody MacIntyre	APM
	Gerald McCormack	TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: May 11<sup>th</sup>, 2018

Project No.: PE7056 Location: 1B5

Report No.: 111

#### 1. Details to be Noted:

ALL-TECH was contracted by PEI department of Transportation & Infrastructure Renewal to conduct work site inspections and air monitoring during the planned asbestos abatement activities within Three Oaks Senior High School's major renovation project.

On May 11th, 2018 ALL-TECH consultant Neal Millman conducted inspections during today's shift within Block 1B5.

During the work site inspection, all asbestos containing material were noted removed in first floor corridor leading to the kitchen. Workers were removing asbestos containing pipe parging using glove bag procedures within the area. Good house keeping was noted with amended water being utilized.

One (1) clearance sample and one (1) Perimeter sample was collected during today's shift, details are below for the sample locations.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D.93	9:00 (am)	40	15	R-4	600	Block 1B5 1st Level Corridor leading to kitchen * Perimeter Sample	N/D
√D.94	10:25 (am)	30	15	R-3	450	Block 1B5 1st Level Corridor leading to kitchen * Clearance Sample	N/D

ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is

primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25 \mu$  m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	N/A
Repairs Required	N/A
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	N/A
Filters Inspected and Changed as Required	N/A

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	V
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	
Amended Water	V
Negative Air Filtration	V

#### 7. Waste Management

Waste properly double bagged before leaving site	
Waste transfer manifest documentation	

#### 8. Work Site Cleanliness

General House Keeping	$\sqrt{}$
ACM bagged as work progresses	

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: \_ Meal mille

**Neal Millman, CET** 

Senior Environmental Consultant

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
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Jody MacIntyre APM
Gerald McCormack TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: May 14th, 2018

Project No.: PE7056 Location: 1B5

Report No.: 112

#### 1. Details To Be Noted:

On May 14<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside Block B (1B5) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the window frame that contained asbestos hard board.

One (1) clearance samples was collected inside the enclosure with a total of two windows were taken out during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-92	10:25 (am)	30	15	A-11	450	Block B (1B5) 1st Level Garage Beside Loading Bay * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of 0.8  $\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

#### 3. Site Conditions (Enclosures)

Penetrations Observed	NO
Repairs Required	NO
Prompt Response	N/A

## 4. Negative Air Pressure

Number of Units Operating Effectively	N/A
Minimum -0.02" H <sub>2</sub> O Maintained	N/A
Filters Inspected and Changed as Required	N/A

## 5. Personal Protective Equipment

Powered Air Purifying Respirators with HEPA Filters	
Disposable Coveralls	V
CSA Safety Boots	V

#### 6. Dust Control

Wet Wiping Techniques	V
Amended Water	V
Negative Air Filtration	V

## 7. Waste Management

Waste properly double bagged before leaving site	$\sqrt{}$
Waste transfer manifest documentation	

## 8. Work Site Cleanliness

General House Keeping	$\checkmark$
ACM bagged as work progresses	V

#### 9. Number of Workers On-Site

Asbestos Abatement Contractor	Marenco	6
Project Consultant	ALL-TECH Environmental	2

Should you have any questions regarding this report, please do not hesitate to contact our office at (902) 569-0172.

Senior Consultant: Meal mille Neal Millman, CET

# Senior Environmental Consultant ALL-TECH Environmental Services Limited

СС	Kevin Kennedy	DTIE
	lan Harper	APM
	Dave Wadden	APM
	Jody MacIntyre	APM
	Gerald McCormack	TOSH



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: May 15<sup>th</sup>, 2018

Project No.: PE7056 Location: 1B5

Report No.: 113

#### 1. Details To Be Noted:

On May 15<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside Block B (1B5) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the window frame that contained asbestos hard board.

Two (2) clearance samples was collected inside the enclosure with a total of four windows were taken out during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-95	9:15 (am)	40	15	A-11	600	Block B (1B5) 1st Level Room 213 * Clearance Sample	N/D
√D-96	9:35 (am)	35	15	R-4	525	Block B (1B5) 1st Level Cafeteria * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres  $< 0.25\mu$  m in diameter.

#### 3. Site Conditions (Enclosures)

	Penetrations Observed	NO
--	-----------------------	----

	NO		
	N/A		
	N/A		
	N/A		
	N/A		
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ALL-TECH Environmental			

ALL-TECH Environmental Services Limited

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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: May 16<sup>th</sup>, 2018

Project No.: PE7056 Location: 1B5 Report No.: 114

#### 1. Details To Be Noted:

On May 16<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside Block B (1B5) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the window frame that contained asbestos hard board.

One (1) Perimeter and one (1) clearance samples were collected outside and inside the enclosure with a total of four windows were taken out during today's shift. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-97	9:40 (am)	30	15	R-4	450	Block B (1B5) 1st Level Window - Cafeteria * Perimeter Sample	N/D
√D-99	11:18 (am)	30	15	R-4	450	Block B (1B5) 1st Level Window - Cafeteria * Clearance Sample	N/D

#### ND None Detected

√ Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety
Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental
Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO

Disposable Coveralls CSA Safety Boots			√ √	
Dust Control				
Wet Wiping Techniques			$\sqrt{}$	
Amended Water			V	
Negative Air Filtration			V	
Waste Management Waste properly double bagged I Waste transfer manifest docume			√ 	
Work Site Cleanliness				
General House Keeping				
ACM bagged as work progresse	es		$\sqrt{}$	
	es		1	
Number of Workers On-Site				
Asbestos Abatement	Marer	nco	6	
Contractor				
Project Consultant	ALL-TECH En	vironmental	1	

ALL-TECH Environmental Services Limited

cc Kevin Kennedy DTIE
lan Harper APM
Dave Wadden APM
Jody MacIntyre APM
Jeff Clow DTIE



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## ASBESTOS ABATEMENT AIR MONITORING REPORT THREE OAKS SENIOR HIGH SCHOOL – SUMMERSIDE, PE

Client: PEI Dept. of Transportation, Infrastructure & Energy

P.O. Box 2000 Charlottetown, PEI

C1A 7N8

Attn: Tyler Richardson

Date: May 24<sup>th</sup>, 2018

Project No.: PE7056 Location: 1B5

Report No.: 115

#### 1. Details To Be Noted:

On May 24<sup>th</sup>, 2018 ALL-TECH Environmental Services conducted final inspections of the work area inside Block B (1B5) and conducted clearance sampling for airborne asbestos fibres.

During the shift the contractor finished removing the ceiling duct work.

One (1) Perimeter and one (1) clearance sample was collected outside and inside the enclosure with the windows open to the outside during clearance sampling. Results can be found in section 2.

Refer to sections 2 – 9 for daily inspection checklist.

## 2. Air Monitoring Results:

Sample Number	Time of Collection (am/pm)	Sample Duration (Min.)	Flow Rate (L/m)	Pump ID	Sample Volume (Litres)	Sample Location / *Sample Description	Reported Results (f/cc)
√D-98	10:00 (am)	30	15	R-4	450	Block B (1B5) 1st Level Outside Enclosure - Cafeteria * Perimeter Sample	N/D
√D-100	11:00 (am)	30	15	R-4	450	Block B (1B5) 1st Level Duct work - Cafeteria * Clearance Sample	N/D

#### ND None Detected

v Air monitoring results were acceptable at the time of sampling and within regulations set by PEI Occupational Health & Safety Act. The current Threshold Limit Value (TLV) for all forms of asbestos is set by the American Conference of Governmental Industrial Hygienists (ACGIH) is 0.1 fibres per cubic centimetre (f/cc)

During sample collection and analysis, the NIOSH 7400 Method was followed. The samples were collected on 3 piece, 25mm cellulose ester sampling cassettes with a pore size of  $0.8\mu$  m.

The above noted samples were analyzed using the NIOSH 7400 Method, (Asbestos and Other Fibres by PCM) following "A" counting rules. NIOSH states in the section titled "Applicability" that "this method gives an index of airborne fibres. It is primarily used for estimating asbestos concentrations, though PCM does not differentiate between asbestos and other fibres. This method will not detect fibres < 0.25µ m in diameter.

## 3. Site Conditions (Enclosures)

Penetrations Observed	NO

Repairs Required			NO				
Prompt Response			N/A				
Negative Air Pressure							
Number of Units Operating Effo	ectively		N/A				
Minimum -0.02" H <sub>2</sub> O Maintaine	d		N/A				
Filters Inspected and Changed	as Required	Required N/A					
Personal Protective Equip	ment						
Powered Air Purifying Respirat	ors with HEPA Filters		V				
Disposable Coveralls			V				
CSA Safety Boots			$\sqrt{}$				
Dust Control Wet Wiping Techniques			<b>√</b>				
Amended Water			√ √				
Negative Air Filtration			<u>√</u>				
Wasta Managament							
Waste Management  Waste properly double bagged	hefore leaving site		√				
Waste transfer manifest docum							
Work Site Cleanliness		_	1				
General House Keeping							
ACM bagged as work progress	es		V				
Number of Workers On-Site							
Asbestos Abatement Contractor	Marenco		6				
Contractor	ALL-TECH Environmental		1				

ALL-TECH Environmental Services Limited

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