



**EARTHRES**  
ENGINEERING FOR SUCCESS™

October 24, 2018

Andrew J. Gutshall, P.G.  
Environmental Manager  
Hanson Aggregates Pennsylvania, LLC  
7660 Imperial Way  
Allentown, PA 18195

**SUBJECT: 3<sup>rd</sup> Quarter 2018 NOA Monitoring Report  
Rock Hill Quarry Operation  
SMP No. 7974SM1  
East Rockhill Township, Bucks County  
EARTHRES Project No. 061003.051**

Dear Mr. Gutshall:

Pursuant to the site monitoring plan approved by the Pennsylvania Department of Environmental Protection (PA DEP), Earthres Group, Inc. (EARTHRES) is pleased to provide the following 3<sup>rd</sup> Quarter 2018 Monitoring Report for the Rock Hill Quarry.

## **INTRODUCTION**

Site work was completed in accordance with the Monitoring Plan prepared by Hanson Aggregates Pennsylvania, LLC (Hanson), as approved by PA DEP in their letter dated January 25, 2018. The ongoing work is being performed to assess the potential presence of naturally occurring asbestos (NOA) in the areas to be mined. Prior site investigation and sampling detailed in our reports of January 18, 2018 (1<sup>st</sup> Quarter 2018) and June 4, 2018 (2<sup>nd</sup> Quarter 2018), did not indicate the presence of NOA in the proposed mining area.

The current monitoring and sampling effort included site observation, collection and analysis of rock and rock cuttings in the active southeast quarry development area. The work was performed onsite by EARTHRES personnel on July 17<sup>th</sup>, July 18<sup>th</sup>, July 31<sup>st</sup>, August 22<sup>nd</sup>, September 6<sup>th</sup>, & September 24<sup>th</sup>, 2018, under the supervision of a Pennsylvania licensed Professional Geologist (P.G.). A site figure showing the quarry area and sample locations is included in Appendix A.

## **SITE SPECIFIC INVESTIGATION**

Per the NOA Monitoring Plan, one (1) composite drill-cutting sample was collected from two (2) drill holes on each active bench. The corresponding sampling locations are shown on the

attached Figure in Appendix A. The highwall faces below the bench were inspected and did not show evidence of mineral veining and additional samples were not collected.

The composite samples were collected using a sterile plastic scoop that was used to mix and collect the drill cuttings. One (1)-gallon Ziplock® bags were filled with approximately 0.5 gallons of drill cuttings from each borehole. The two drill cutting samples were then combined into a single one-gallon Ziplock® bag evenly and mixed. A total of two (2) composite samples were collected, one (1) from each active bench. The composite samples were identified as “Composite” on the laboratory chain-of custody (COC). A table is provided below indicating sample location and combination.

The sample location is shown on the attached Figure in Appendix A. Pictures of the highwall, specific sampling locations and the collected samples are provided on the photographs in Appendix B.

<b>Table 1</b>			
Rock Hill Quarry Drill Samples for Asbestos			
<b>Sample</b>	<b>Location</b>	<b>Combination</b>	<b>Sample Date</b>
S-1	Middle Bench	Composite #1	7/17/2018
S-2			
S-3	Lower Bench	Composite #2	7/18/2018
S-4			
S-5	Upper Bench	Composite #1	7/31/2018
S-6			
S-7	Middle Bench	Composite #1	8/22/2018
S-8			
S-9	Upper Bench	Composite #1	9/6/2018
S-10			
S-11	Middle Bench	Composite #1	9/24/2018
S-12			
See Figure 1 for sample locations.			

The composite samples were transported directly by EARTHRES to EMSL Analytical, Inc. laboratory in Cinnaminson, NJ. The samples were analyzed using Polarized Light Microscopy (PLM) via EPA 600/R-93/116 Method.

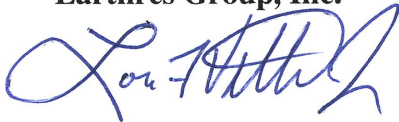
## SAMPLE RESULTS

The laboratory testing results determined that the drill cutting composite samples were homogeneous and 100% non-fibrous. NOA was not detected in any of the samples at the method detection limit of 0.1%. The laboratory reports are included as in Appendix C.

The sampling results from this quarter (6 samples) and prior sampling events (10 samples), continue to show the absence NOA in the mining area. Based upon the sampling conducted and field observations, a reduction in sampling frequency is warranted.

If you have any questions or concerns regarding the presented investigation and results, please feel free to contact me at (215) 766-1211.

Sincerely,  
**Earthres Group, Inc.**



Louis F. Vittorio, Jr., P.G.  
Vice President



**Appendices:** A – Figure 1  
B – Site and Sample Photographs  
C – Laboratory Analytical Results

**APPENDIX A**

**FIGURE 1**

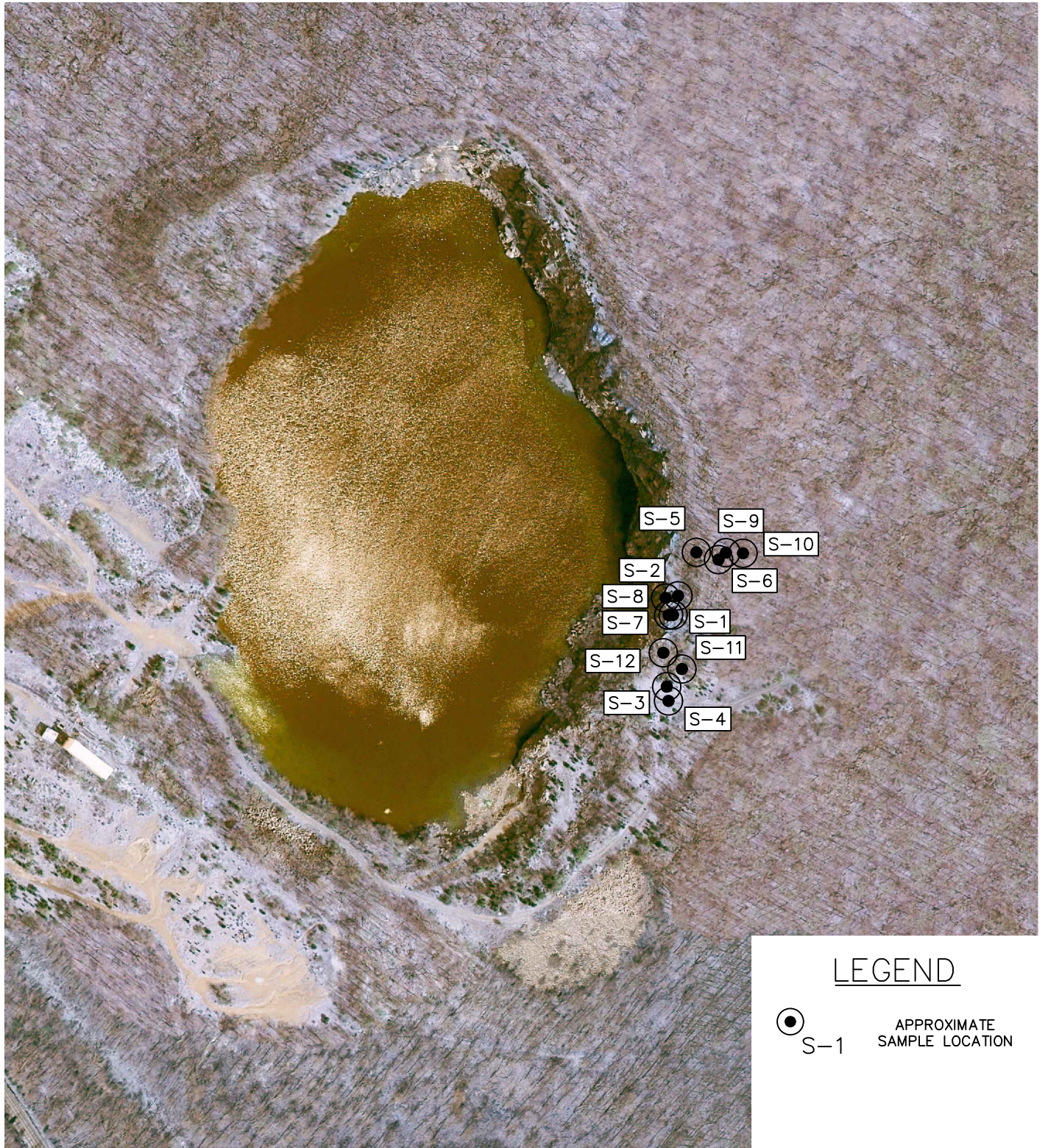


IMAGE SOURCE: PASDA AERIAL IMAGERY SERVICE (2015)



**EARTHRES**

ENGINEERING FOR SUCCESS™

www.earthres.com

HEADQUARTERS  
PHILADELPHIA REGION

P.O. Box 488  
6912 Old Eastern Road  
Pipersville, PA 18947

APPALACHIAN  
REGIONAL OFFICE

P.O. Box 794  
8000 Coombs Farm Drive  
Morgantown, WV 26505

DRAWN BY:  
*JPS*

CHECKED BY:  
*LFV*

DATE:  
*7/19/2018*

PROJECT NO:  
*061003.051*

DRAWING SCALE:  
*1" = 300'*



**FIGURE 1**  
SAMPLE LOCATION MAP

ROCK HILL QUARRY  
HANSON AGGREGATES PENNSYLVANIA, LLC  
EAST ROCKHILL TOWNSHIP  
BUCKS COUNTY, PENNSYLVANIA

**APPENDIX B**

**SITE & SAMPLING PHOTOS**



Photo 1 – S-1 Drill Cuttings and Sample Location



Photo 2 – S-2 Drill Cuttings and Sample Location



Photo 3 – S-3 Drill Cuttings and Sample Location



Photo 4 – S-4 Drill Cuttings and Sample Location



Photo 5 – S-5 and S-6 Drill Cuttings and Sample Locations





Photo 6 – S-7 Drill Cuttings and Location



Photo 7 – S-8 Drill Cuttings and Location



Photo 8 – S-11 and S-12 Drill Cuttings and Locations



Photo 9 – Highwall of S-11 and S-12 Location

**APPENDIX C**

**DRILL CUTTING LABORATORY RESULTS**

**July 17-18, 2018**



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Phone/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order: 041821670  
Customer ID: ERG51  
Customer PO:  
Project ID:

**Attention:** Louis Vittorio  
ERG (EARTHRES GROUP, INC.)  
P.O. BOX 468  
PIPERSVILLE, PA 18947  
**Phone:** (215) 766-1211  
**Fax:** (215) 766-1245  
**Received:** 07/18/2018 5:50 PM  
**Analysis Date:** 07/19/2018  
**Collected:**  
**Project:** 061003.051

## Test Report: PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling). Level B for 0.1% Target Analytical Sensitivity

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
Composite #1 041821670-0001	Drill Cuttings Composite Sample	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected
Composite #2 041821670-0002	Drill Cuttings Composite Sample	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Andrew Castellano (2)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

This report relates only to the samples listed above and may not be reproduced except in full, without EMSL's written approval. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for sample collection activities or method limitations. Some samples may contain asbestos fibers below the resolution limit of PLM. EMSL recommends that samples reported as none detected or less than the limit of detection undergo additional analysis via TEM. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ

Initial report from: 07/19/2018 12:00:06



EMSL ANALYTICAL, INC.  
LABORATORY-PRODUCTS-TRAINING

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

041821670  
EMSL  
CINCINNATI, OHIO

PHONE:  
FAX:

Company Name: EarthRes Group		2018 JUL 18 PM 5:51 EMSL Customer ID:	
Street: 6913 Old Easton Road		City: Pipersville	State/Province: PA
Zip/Postal Code: 18947	Country: USA	Telephone #: 2157661211	Fax #:
Report To (Name): Louis Vittorio		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: Lvittorio@earthres.com		Purchase Order:	
Project Name/Number: 061003.051		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to:  Same  Different - If Bill to is Different note instructions in Comments\*\*  
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options\* - Please Check

3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. \*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<b>PCM - Air</b> <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	<b>TEM - Air</b> <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	<b>TEM - Dust</b> <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
<b>PLM - Bulk (reporting limit)</b> <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)	<b>TEM - Bulk</b> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	<b>Soil/Rock/Vermiculite</b> <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only)
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		<b>Other:</b> <input checked="" type="checkbox"/> PLM Carb 435 Level B Reporting Limit (<0.1%) (See Order #041817020)

Filter Pore Size (Air Samples):  0.8µm  0.45µm

Samplers Name: JPS

Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
Composite #1	Drill Cuttings Composite Sample	1 gallon	7/17/18 1020
Composite #2	"	1 gallon	7/18/18 1510

Client Sample # (s):	Total # of Samples: 2
Relinquished (Client):	Date: 7/18/18 / 7/18/18 Time: 7:45
Received (Lab):	Date: 7/18/18 Time: 5:50pm
Comments/Special Instructions:	

Bill to: Andrew J Gutshall, Area Environmental Manager -ECPA/NJ Company Lehigh Hanson, Inc Address: 7660 Imperial Way Allentown, PA 18195 Office phone (610) 366-4819

*ZRN*

*Rock Hill Quarry  
3<sup>rd</sup> Quarter 2018 NOA Monitoring Report*

**July 31, 2018**



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Phone/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order: 041823264  
Customer ID: ERG51  
Customer PO:  
Project ID:

**Attention:** Louis Vittorio  
ERG (EARTHRES GROUP, INC.)  
P.O. BOX 468  
PIPERSVILLE, PA 18947  
**Project:** 061003.051

**Phone:** (215) 766-1211  
**Fax:** (215) 766-1245  
**Received:** 08/01/2018 9:30 AM  
**Analysis Date:** 08/07/2018  
**Collected:** 07/31/2018

## Test Report: PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling). Level B for 0.1% Target Analytical Sensitivity

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
Composite #1 041823264-0001	Drill Cutting Sample - Composite	Brown Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Andrew Castellano (1)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The test results contained within this report meet the requirements of NELAP unless otherwise specified. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ

Initial report from: 08/07/2018 09:44:10





EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

041823264

RECEIVED  
EMSL  
PO BOX 100  
FAX  
MINSON, NJ  
18 AUG - 1 AM 10:24

Company Name : EarthRes Group		EMSL Customer ID:	
Street: 6913 Old Easton Road		City: Pipersville	State/Province: PA
Zip/Postal Code: 18947	Country: USA	Telephone #: 2157661211	Fax #:
Report To (Name): Louis Vittorio		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: Lvittorio@earthres.com		Purchase Order:	
Project Name/Number: 061003.051		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	
EMSL-Bill to: <input type="checkbox"/> Same <input checked="" type="checkbox"/> Different - If Bill to is Different note instructions in Comments** Third Party Billing requires written authorization from third party			

Turnaround Time (TAT) Options\* - Please Check

3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. \*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<p><b>PCM - Air</b> <input type="checkbox"/> Check if samples are from NY</p> <p><input type="checkbox"/> NIOSH 7400</p> <p><input type="checkbox"/> w/ OSHA 8hr. TWA</p> <p><b>PLM - Bulk (reporting limit)</b></p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 (&lt;1%)</p> <p><input type="checkbox"/> PLM EPA NOB (&lt;1%)</p> <p>Point Count</p> <p><input type="checkbox"/> 400 (&lt;0.25%) <input type="checkbox"/> 1000 (&lt;0.1%)</p> <p>Point Count w/Gravimetric</p> <p><input type="checkbox"/> 400 (&lt;0.25%) <input type="checkbox"/> 1000 (&lt;0.1%)</p> <p><input type="checkbox"/> NYS 198.1 (friable in NY)</p> <p><input type="checkbox"/> NYS 198.6 NOB (non-friable-NY)</p> <p><input type="checkbox"/> NYS 198.8 SOF-V</p> <p><input type="checkbox"/> NIOSH 9002 (&lt;1%)</p>	<p><b>TEM - Air</b> <input type="checkbox"/> 4-4.5hr TAT (AHERA only)</p> <p><input type="checkbox"/> AHERA 40 CFR, Part 763</p> <p><input type="checkbox"/> NIOSH 7402</p> <p><input type="checkbox"/> EPA Level II</p> <p><input type="checkbox"/> ISO 10312</p> <p><b>TEM - Bulk</b></p> <p><input type="checkbox"/> TEM EPA NOB</p> <p><input type="checkbox"/> NYS NOB 198.4 (non-friable-NY)</p> <p><input type="checkbox"/> Chatfield SOP</p> <p><input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5</p> <p><b>TEM - Water:</b> EPA 100.2</p> <p>Fibers &gt;10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p> <p>All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p>	<p><b>TEM- Dust</b></p> <p><input type="checkbox"/> Microvac - ASTM D 5755</p> <p><input type="checkbox"/> Wipe - ASTM D6480</p> <p><input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)</p> <p><b>Soil/Rock/Vermiculite</b></p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (&lt;1%)</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (&lt;0.25%)</p> <p><input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (&lt;0.1%)</p> <p><input type="checkbox"/> TEM Qualitative via Filtration Prep</p> <p><input type="checkbox"/> TEM Qualitative via Drop Mount Prep</p> <p><input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only)</p> <p><b>Other:</b></p> <p><input checked="" type="checkbox"/> PLM Carb 435 Level B Reporting Limit (&lt;0.1%) (See Order #041817020)</p>
--	--	--

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples):  0.8µm  0.45µm

Samplers Name: JPS Samplers Signature: *[Signature]*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
Composite #1	Drill Cutting Sample (Composite)	1 gallon	7/31/18 1135

Client Sample # (s):	-	Total # of Samples:	1 <i>(1ch)</i>
Relinquished (Client): <i>[Signature]</i>	Date: 7/31/18	Time: 1500	
Received (Lab): <i>[Signature]</i>	Date: 8-1-18	Time: 9:30	

Comments/Special Instructions: 5 Day turnaround time

*Rock Hill Quarry  
3<sup>rd</sup> Quarter 2018 NOA Monitoring Report*

**August 22, 2018**



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Phone/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

EMSL Order: 041825501  
Customer ID: ERG51  
Customer PO:  
Project ID:

**Attention:** Louis Vittorio  
ERG (EARTHRES GROUP, INC.)  
P.O. BOX 468  
PIPERSVILLE, PA 18947  
**Project:** 061003.051

**Phone:** (215) 766-1211  
**Fax:** (215) 766-1245  
**Received:** 08/22/2018 12:00 PM  
**Analysis Date:** 08/23/2018  
**Collected:** 08/22/2018

## Test Report: Asbestos Analysis of Soils via EPA 600/R-93/116 Method using PLM and Milling Prep. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
Composite #1 041825501-0001	Composite Drill Cuttings	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Juli Patel (1)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from: 08/23/2018 10:08:55



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

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

041825501

PHONE:  
FAX:

Company Name : EarthRes Group		EMSL Customer ID:	
Street: 6913 Old Easton Road		City: Pipersville	State/Province: PA
Zip/Postal Code: 18947	Country: USA	Telephone #: 2157661211	Fax #:
Report To (Name): Louis Vittorio		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: Lvittorio@earthres.com		Purchase Order:	
Project Name/Number: 061003.051		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to:  Same  Different - If Bill to is Different note instructions in Comments\*\*  
Third Party Billing requires written authorization from third party

**Turnaround Time (TAT) Options\* - Please Check**

3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

<b>PCM - Air</b> <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	<b>TEM - Air</b> <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	<b>TEM - Dust</b> <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
<b>PLM - Bulk (reporting limit)</b> <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NYS 198.8 SOF-V <input type="checkbox"/> NIOSH 9002 (<1%)	<b>TEM - Bulk</b> <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 <b>TEM - Water: EPA 100.2</b> Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	<b>Soil/Rock/Vermiculite</b> <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%) <input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%) <input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<0.1%) <input type="checkbox"/> TEM Qualitative via Filtration Prep <input type="checkbox"/> TEM Qualitative via Drop Mount Prep <input type="checkbox"/> Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only) <b>Other:</b> <input checked="" type="checkbox"/> PLM Carb 435 Level B Reporting Limit (<0.1%) (See Order #041817020)

RECEIVED  
 CINCINNATI, OH  
 8/22/18  
 12:00

Check For Positive Stop -- Clearly Identify Homogenous Group Filter Pore Size (Air Samples):  10µm  0.45µm

Samplers Name: JPS Samplers Signature: *[Signature]*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
Composite #1	Composite Drill Cuttings	1 gallon	8/22/18 0845

Client Sample # (s):	-	Total # of Samples:	1
Relinquished (Client):	Mary P. Shovel	Date:	8/22/18
Received (Lab):	<i>[Signature]</i> WJE	Date:	8/22/18
Time:	12:00 PM	Time:	12:00 PM

Comments/Special Instructions:  
Bill to: Andrew J Gutshall, Area Environmental Manager -ECPA/NJ Company Lehigh Hanson, Inc Address: 7660 Inperial Way Allentown, PA 18195 Office phone (610) 366-4819

**September 6, 2018**



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Phone/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

EMSL Order: 041827054  
Customer ID: ERG51  
Customer PO:  
Project ID:

**Attention:** Louis Vittorio  
ERG (EARTHRES GROUP, INC.)  
P.O. BOX 468  
PIPERSVILLE, PA 18947  
**Phone:** (215) 766-1211  
**Fax:** (215) 766-1245  
**Received:** 09/06/2018 4:25 PM  
**Analysis Date:** 09/07/2018  
**Collected:**  
**Project:** 061003.051

## Test Report: Asbestos Analysis of Soils via EPA 600/R-93/116 Method using PLM and Milling Prep. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
Composite 041827054-0001	Composite Sample of Drill Cuttings	Tan Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Andrew Castellano (1)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from: 09/07/2018 14:58:10



EMSL ANALYTICAL, INC.  
LABORATORY • PRODUCTS • TRAINING

# Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

041827054

PHONE:  
FAX:

Company Name : EarthRes Group		EMSL Customer ID:	
Street: 6913 Old Easton Road		City: Pipersville	State/Province: PA
Zip/Postal Code: 18947	Country: USA	Telephone #: 2157661211	Fax #:
Report To (Name): Louis Vittorio		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: Lvittorio@earthres.com		Purchase Order:	
Project Name/Number: 061003.051		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to:  Same  Different - If Bill to is Different note instructions in Comments\*\*  
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options\* - Please Check

3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. \*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air  Check if samples are from NY

NIOSH 7400  
 w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)

PLM EPA 600/R-93/116 (<1%)  
 PLM EPA NOB (<1%)

Point Count

400 (<0.25%)  1000 (<0.1%)

Point Count w/Gravimetric

400 (<0.25%)  1000 (<0.1%)

NYS 198.1 (friable in NY)

NYS 198.6 NOB (non-friable-NY)

NYS 198.8 SOF-V

NIOSH 9002 (<1%)

TEM - Air  4-4.5hr TAT (AHERA only)

AHERA 40 CFR, Part 763

NIOSH 7402

EPA Level II

ISO 10312

TEM - Bulk

TEM EPA NOB

NYS NOB 198.4 (non-friable-NY)

Chatfield SOP

TEM Mass Analysis-EPA 600 sec. 2.5

TEM - Water: EPA 100.2

Fibers >10µm  Waste  Drinking

All Fiber Sizes  Waste  Drinking

TEM- Dust

Microvac - ASTM D 5755

Wipe - ASTM D6480

Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite

PLM EPA 600/R-93/116 with milling prep (<1%)

PLM EPA 600/R-93/116 with milling prep (<0.25%)

TEM EPA 600/R-93/116 with milling prep (<0.1%)

TEM Qualitative via Filtration Prep

TEM Qualitative via Drop Mount Prep

Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only)

Other:

PLM Carb 435 Level B Reporting Limit (<0.1%) (See Order #041817020)

Check For Positive Stop - Clearly Identify Homogenous Group

Filter Pore Size (Air Samples):  0.8µm  0.45µm

Samplers Name: JPS

Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
Composite	Composite Sample of Drill Cuttings	1 gallon	09/06/18 1355

Client Sample # (s): -

Total # of Samples:

Relinquished (Client):

Date:

Time:

Received (Lab):

Date: 9/6/18

Time: 4:25pm

Comments/Special Instructions:

Bill to: Andrew J Guzmall, Area Environmental Manager -ECPA/NJ Company, Lehigh Hanson, Inc. Address: 7660 Inperial Way Allentown, PA 18195 Office phone (610) 366-4819

PLM  
400 pt ct  
w/ milling

(IRL)

**September 24, 2018**





# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
Phone/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com> / [cinnaslab@EMSL.com](mailto:cinnaslab@EMSL.com)

EMSL Order: 041828867  
Customer ID: ERG51  
Customer PO:  
Project ID:

**Attention:** Louis Vittorio  
ERG (EARTHRES GROUP, INC.)  
P.O. BOX 468  
PIPERSVILLE, PA 18947  
**Project:** 061003.051

**Phone:** (215) 766-1211  
**Fax:** (215) 766-1245  
**Received:** 09/24/2018 3:30 PM  
**Analysis Date:** 09/25/2018  
**Collected:**

## Test Report: PLM Analysis of Bulk Samples for Asbestos via EPA 600/R-93/116 Method with CARB 435 Prep (Milling). Level B for 0.1% Target Analytical Sensitivity

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
Compsite 1 041828867-0001	Drill Cuttings Composite	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s) \_\_\_\_\_

Andrew Castellano (1)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to the cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. The test results contained within this report meet the requirements of NELAP unless otherwise specified. Samples received in good condition unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ

Initial report from: 09/25/2018 17:24:02



EMSL ANALYTICAL, INC.  
LABORATORY PRODUCTS TRAINING

# Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

041828867

RECEIVED  
PHONE:  
CINNAMERSON, NJ

2010 SEP 24 P 3:33

Company Name : EarthRes Group		EMSL Customer ID:	
Street: 6913 Old Easton Road		City: Pipersville	State/Province: PA
Zip/Postal Code: 18947	Country: USA	Telephone #: 2157661211	Fax #:
Report To (Name): Louis Vittorio		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: Lvittorio@earthres.com		Purchase Order:	
Project Name/Number: 061003.051		EMSL Project ID (Internal Use Only):	
U.S. State Samples Taken:		CT Samples: <input type="checkbox"/> Commercial/Taxable <input type="checkbox"/> Residential/Tax Exempt	

EMSL-Bill to:  Same  Different - If Bill to is Different note instructions in Comments\*\*  
Third Party Billing requires written authorization from third party

Turnaround Time (TAT) Options\* - Please Check

3 Hour  6 Hour  24 Hour  48 Hour  72 Hour  96 Hour  1 Week  2 Week

\*For TEM Air 3 hr through 6 hr, please call ahead to schedule. \*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

**PCM - Air**  Check if samples are from NY

NIOSH 7400  
 w/ OSHA 8hr. TWA

**PLM - Bulk (reporting limit)**

PLM EPA 600/R-93/116 (<1%)  
 PLM EPA NOB (<1%)

Point Count  
 400 (<0.25%)  1000 (<0.1%)

Point Count w/Gravimetric  
 400 (<0.25%)  1000 (<0.1%)

NYS 198.1 (friable in NY)  
 NYS 198.6 NOB (non-friable-NY)  
 NYS 198.8 SOF-V  
 NIOSH 9002 (<1%)

**TEM - Air**  4-4.5hr TAT (AHERA only)

AHERA 40 CFR, Part 763  
 NIOSH 7402  
 EPA Level II  
 ISO 10312

**TEM - Bulk**

TEM EPA NOB  
 NYS NOB 198.4 (non-friable-NY)  
 Chatfield SOP  
 TEM Mass Analysis-EPA 600 sec. 2.5

**TEM - Water:** EPA 100.2

Fibers >10µm  Waste  Drinking  
All Fiber Sizes  Waste  Drinking

**TEM- Dust**

Microvac - ASTM D 5755  
 Wipe - ASTM D6480  
 Carpet Sonication (EPA 600/J-93/167)

**Soil/Rock/Vermiculite**

PLM EPA 600/R-93/116 with milling prep (<1%)  
 PLM EPA 600/R-93/116 with milling prep (<0.25%)  
 TEM EPA 600/R-93/116 with milling prep (<0.1%)  
 TEM Qualitative via Filtration Prep  
 TEM Qualitative via Drop Mount Prep  
 Cincinnati Method EPA 600/R-04/004 - PLM/TEM (BC only)

**Other:**

PLM Carb 435 Level B Reporting Limit (<0.1%) (See Order #041817020)

Check For Positive Stop - Clearly Identify Homogenous Group Filter Pore Size (Air Samples):  0.8µm  0.45µm

Samplers Name: JPS Samplers Signature: *[Signature]*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
Composite 1	Drill Cuttings Composite	1 gallon	9/24/18/1305

Client Sample # (s): - Total # of Samples:

Relinquished (Client): Date: Time:

Received (Lab): *[Signature]* Date: 9/24/18 Time: 15:30

Comments/Special Instructions:  
Bill to: Andrew J Gutshall, Area Environmental Manager -ECPA/NJ Company: Lehigh Hanson, Inc. Address: 7660 Inpenal Way Allentown, PA 18195 Office phone (610) 386-4819

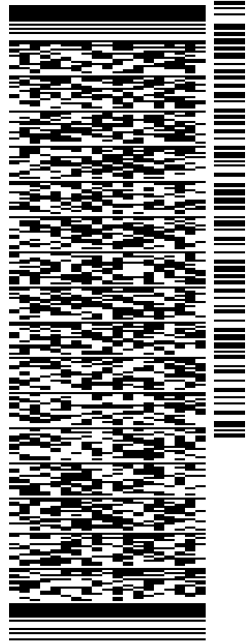
ORIGIN ID: ABEA (610) 366-4819  
ANDREW GUTSHALL  
LEHIGH HANSON, INC.  
7660 IMPERIAL WAY  
ALLENTOWN, PA 18195  
UNITED STATES US

SHIP DATE: 29OCT18  
ACTWGTS: 1.00 LB  
CAD: 2003779/NET4040  
BILL SENDER

TO GARY LATSHA  
PA DEP - POTTSVILLE DMO  
5 W LAUREL BLVD

POTTSVILLE PA 17901

REF: (570) 621-3118  
INV: PO: DEPT:



J182118081501uv

552J138E7/DCA5

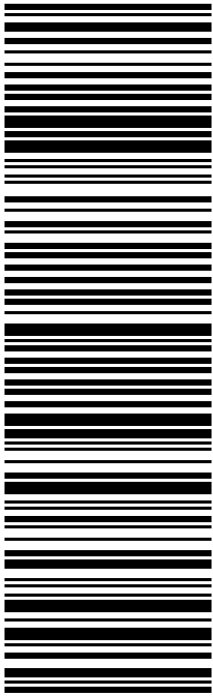
TRK# 7735 8739 5281  
0201

WED - 31 OCT 4:30P

\*\* 2DAY \*\*

15 RDGA

17901  
PA-US ABE



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