

July 27, 2018

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

**SUBJECT: 2nd 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 2nd Quarter 2018 Monitoring Report for the Rock Hill Quarry

INTRODUCTION

Site work was in completed 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) minerals in the areas to be mined. Prior site investigation and sampling detailed in our report of January 18, 2018 (1st 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 June 4, 2018, under the supervision of a Pennsylvania licensed Professional Geologist (P.G.). A site figure showing the quarry and sample locations is included in Appendix A.

SITE SPECIFIC INVESTIGATION

Per the NOA Monitoring Plan, a single active bench (face) area was being prepared for drilling and subsequent blasting at the time of sampling. One (1) composite drill-cutting sample was collected

from two (2) drill holes on the active bench. The corresponding sampling locations are shown on the attached Figure in Appendix A. 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.

An outcrop hand sample of observed mineral veining from the bench face was collected while onsite. The hand sample was compared to previously collected samples, and was found to be similar and from the same location that was sampled and reported as non-detect for NOA in our report of January 18, 2018. The sample location is shown on the attached Figure in Appendix A. Pictures of the highwall, specific sampling locations and the collected sample are provided on the photographs in Appendix B.


The composite sample was shipped via FedEx priority overnight to EMSL Laboratory in Cinnaminson, NJ using standard chain-of-custody procedures. The sample was analyzed using Polarized Light Microscopy (PLM) via EPA 600/R-93/116 Method with preparation using the CARB 435 Method.

SAMPLE RESULTS

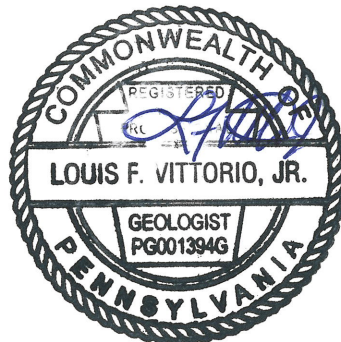
The laboratory testing results determined that the composite drill cutting sample was homogeneous, grey and 100% non-fibrous. Asbestos was not detected in the sample at the lowest PLM CARB 435 detection limit of 0.1%. The laboratory report is in Appendix C.

Please feel free to contact me at (215) 766-1211 should you have any questions or require any additional information.

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

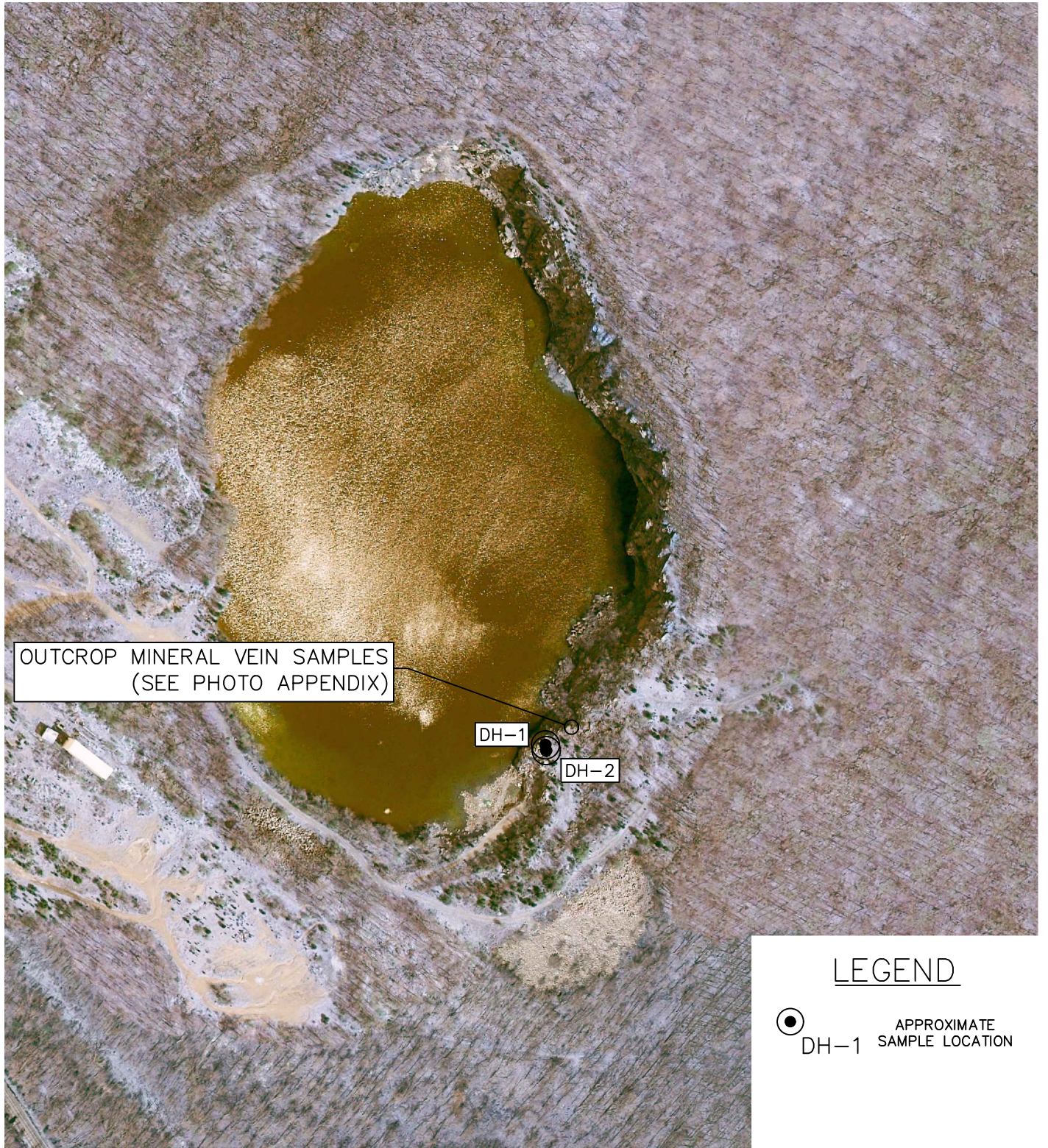


IMAGE SOURCE: PASDA AERIAL IMAGERY SERVICE (2015)



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Morgantown, WV 26508

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toll free 800.264.4553

DRAWN BY:
JPS

CHECKED BY:
LFV

DATE:
6/20/2018

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: Vein exposed in active face.



Photo 2: DH-1 drill cuttings and sample location.



Photo 3: DH-2 drill cuttings and sample location.

APPENDIX C

LABORATORY RESULTS



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

EMSL Order: 041817020
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: 06/05/2018 9:20 AM
Analysis Date: 06/19/2018
Collected: 06/04/2018

Test Report: Asbestos Analysis of Bulk Building Materials 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 041817020-0001	Drill Cuttings	Gray Non-Fibrous Homogeneous		100% Non-fibrous (Other)	None Detected

Analyst(s)

Samantha Rundstorm-Cruz
(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: 06/19/2018 19:22:38



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

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

041817020

RECEIVED
EMSL
CINNATI, OHIO
BINSON, NJ
FAX

18 JUN -5 AM 10:54

Company Name: <u>Earth Res Group</u>		EMSL Customer ID:	
Street: <u>6912 Old Easton Rd</u>		City: <u>Pipersville</u>	State/Province: <u>PA</u>
Zip/Postal Code: <u>18947</u>	Country: <u>USA</u>	Telephone #: <u>215 7661211</u>	Fax #:
Report To (Name): <u>Louis Vittorio</u>		Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email	
Email Address: <u>L.vittorio@earthres.com</u>		Purchase Order:	
Project Name/Number: <u>061003.051</u>		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.

<p>PCM - Air <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>TEM - Air <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>TEM - Dust</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>PLM - Bulk (reporting limit)</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 (<1%)</p> <p><input type="checkbox"/> PLM EPA NOB (<1%)</p> <p>Point Count</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%)</p> <p>Point Count w/Gravimetric</p> <p><input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<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 (<1%)</p>	<p>TEM - Bulk</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>TEM - Water: EPA 100.2</p> <p>Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p> <p>All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking</p>	<p>Soil/Rock/Vermiculite</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<1%)</p> <p><input type="checkbox"/> PLM EPA 600/R-93/116 with milling prep (<0.25%)</p> <p><input type="checkbox"/> TEM EPA 600/R-93/116 with milling prep (<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>Other:</p> <p><input checked="" type="checkbox"/> PLM Carb 435 Level B w/milling Reporting Limit (<0.1%)</p>

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

Samplers Name: Samplers Signature:

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
Composite	Drill Cuttings	1/2 gallon	6/4/18 0830

Client Sample # (s):	-	Total # of Samples:	1
Relinquished (Client): <u>Jarical Sivintak</u>	Date: <u>6/4/18</u>	Time: <u>10:00</u>	
Received (Lab): <u>C/S</u>	Date: <u>6-5-18</u>	Time: <u>9:00</u>	

Comments/Special Instructions: See Back Page.

Per Louis Switch to 400 pt C+LO.017 w/milling 6.7.18 8:00 AM