

Attachment H - Part 2
Perimeter Air Sampling Results (October 2019)



**Perimeter Air Sampling
at
Specialty Granules LLC
September 2019**

Project No: LLH808740

Date: October 2019

Prepared for:

**K&L Gates
18th Floor
17 N. Second St.
Harrisburg, PA 17101-1507**

Prepared by:
RJ LeeGroup, Inc.
350 Hochberg Rd.
Monroeville, PA 15146
www.rjlg.com

1.0 Summary

RJ Lee Group collected and analyzed perimeter air samples at the Specialty Granules LLC (SGI) quarry and processing operation at Charmian, PA. Samples were collected at 10 locations along the perimeter of the SGI property. Each sample collected ambient airborne particulate using active pumps and each was evaluated to determine airborne asbestos concentrations. No asbestos fibers were observed on any sample.

2.0 Sample Collection

Ten sampling sites previously established during a site visit on August 28, 2018 were used for this series of tests. The sites are shown in Figure 1. The sample location details are listed in Table 1.

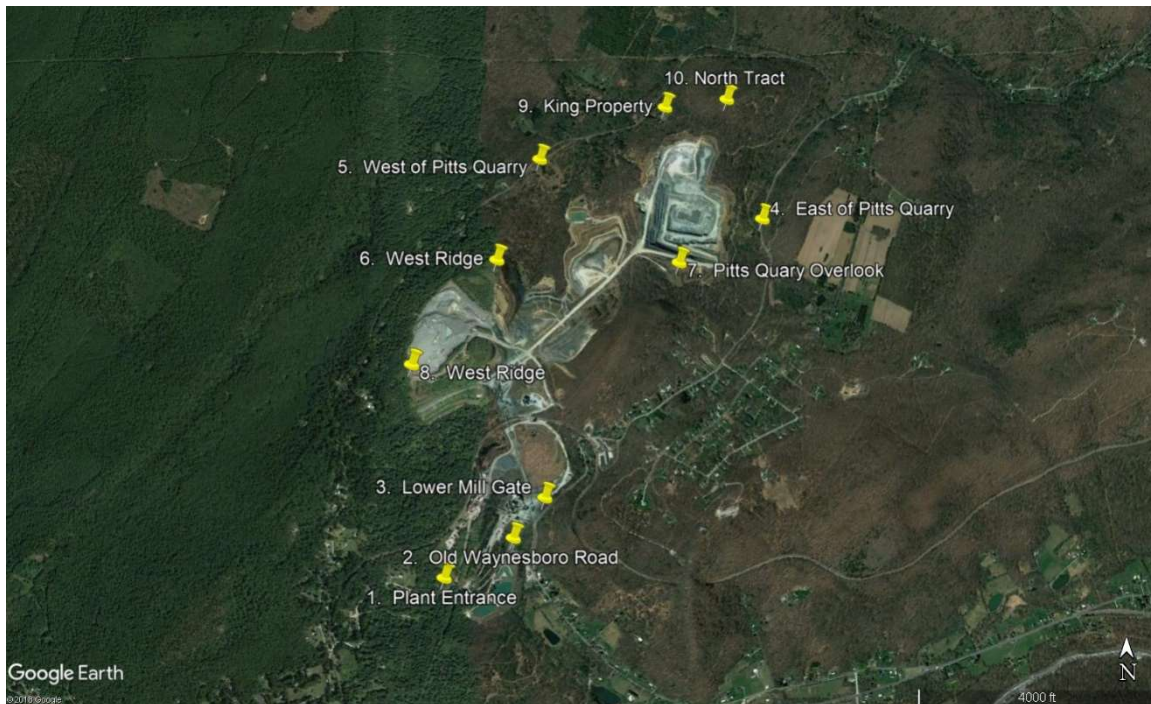


Figure 1. Aerial map showing the location of the samples collected at the Charmian plant of Specialty Granules.

Table 1. Summary of sample locations and sampling dates/times for the Charmian Quarry.

Location	Latitude	Longitude	September 18, 2019	September 25, 2019
1. Plant Entrance	39° 44' 38" N	77° 27' 32" W	X	
2. Old Waynesboro Rd at Box Culvert	39° 44' 43" N	77° 27' 24" W	X	
3. Lower Mill Gate	39° 44' 54" N	77° 27' 14" W	X	
4. East of Pitts Quarry	39° 45' 41" N	77° 26' 21" W	X	
5. West of Pitts Quarry	39° 45' 53" N	77° 27' 12" W	X	X
6. West Ridge	39° 45' 33" N	77° 27' 21" W	X	
7. Pitts Quarry Overlook	39° 45' 33" N	77° 26' 39" W	X	
8. West Ridge	39° 45' 15" N	77° 27' 41" W	X	
9. King Property	39° 46' 1" N	77° 26' 43" W	X	X
10. North Tract	39° 46' 2" N	77° 26' 29" W	X	
Field Blank			X	X

Samples were collected at the site on two occasions in September 2019. On September 18, 2019, samples were collected at each location by RJ Lee Group personnel (R. West, K. Anderson, and B. Restelli). Due to pump failures at the West of Pitts Quarry and King Property locations, a second set of samples were collected at these sites on September 25, 2019 by R. West.

Sampling was conducted using personnel sampling pumps operating at a flow rate of about 2 lpm. Each sample comprised a 25-mm cassette fitted with an 0.45 µm mixed cellulose ester filter. The samples were affixed to poles approximately 5 ft above the ground with the cassettes facing downward at an angle of about 45°. For each sampling event, samples were collected for eight hours (480 minutes).

The chain of custody for each sampling event is contained in Appendix A. Photographs of the sampling are included in Appendix B.

3.0 Sample Analysis

Each sample was analyzed using two procedures. The first procedure was phase contrast microscopy (PCM) conducted in accordance with NIOSH 7400 (*Asbestos and Other Fibers by PCM*). In this analysis, all visible fibers that are longer than 5 µm and that have a minimum aspect ratio of 3:1 (length:width) are counted. The PCM method cannot identify the fibers as a specific mineral but counts all visible fibers.

The second procedure used on each sample was transmission electron microscopy (TEM) conducted in general accordance with Annex E of ISO 10312 (*Ambient air - Determination of asbestos fibres - Direct-transfer transmission electron microscopy method*). For this analyses, asbestos fibers 5 µm and longer with a minimum aspect ratio of 3:1 were counted.

The mineral particles observed in the TEM were classified as either “asbestos” or “non-asbestos” based on the descriptions of “asbestiform” given in EPA, OSHA, and US Bureau

of Mines documents. The ISO 10312 method generally does not make such differentiations, but only the asbestiform habit of the amphibole minerals is regulated in the United States and in the Commonwealth of Pennsylvania.

A few comments are necessary to fully understand the ISO 10312 reports. The method reports all concentrations in terms of structure per liter (S/L) while, here in the US, we use the units of structure or fiber per milliliter or cubic centimeter (f/ml, f/cm³, or f/cc). To convert from S/L to f/ml, simply divide the S/L concentration by 1000.

4.0 Analytical Results

The analytical data are summarized in Table 2. Appendix C contains the analytical reports along with any images recorded by the TEM during the analysis.

Table 2. Summary of analytical results for the air samples collected at the Charmian Quarry

Location	RJLG #	NIOSH 7400, f/cc	ISO 10312, f/cc
September 18, 2019			
1. Plant Entrance	5306369	0.0281	< 0.0011
2. Old Waynesboro Rd at Box Culvert	5306370	0.0163	< 0.0012
3. Lower Mill Gate	5306368	0.0072	< 0.0012
4. East of Pitts Quarry	5306371	< 0.0056	< 0.0011
5. West of Pitts Quarry	5306374	< 0.0089*	Not analyzed
	5306375	< 0.1124*	Not analyzed
6. West Ridge	5306366	< 0.0056	< 0.0011
7. Pitts Quarry Overlook	5306367	< 0.0056	Overloaded
8. West Ridge	5306365	< 0.0056	< 0.0011
9. King Property	5306372	< 0.0442*	Not analyzed
10. North Tract	5306373	< 0.0056	< 0.0011
Field Blanks	5306376	n/a	n/a
	5306377	n/a	n/a
September 25, 2019			
5. West of Pitts Quarry	5306378	< 0.0029	< 0.0011
	5306379	< 0.0028	< 0.0011
	5306380	< 0.0028	< 0.0011
9. King Property	5306382	< 0.0029	< 0.0011
	5306383	< 0.0029	< 0.0011
Field Blanks	5306384	n/a	n/a
	5306385	n/a	n/a

n/a – not applicable

* - samples analyzed by PCM even though the pumps failed during sample collection

5.0 Discussion

Samples of airborne particulate were collected around the perimeter of the Charmian Quarry in September 2019. These samples indicate there are airborne particles, but that no asbestos fibers were observed in any of these perimeter samples.

Samples were collected at two sites on a second day. On the initial day, the pumps at these locations failed (stopped working). Generally, this occurs when the battery is drained or when the pressure drop across the filter is too great. This occasionally occurs when using a 0.45 µm pre filter with a personal pump.

To compensate for the possible pump failure, on the second sampling trip (September 25) multiple samples were collected at each site. No pump failed during the second visit.

In summary, active sampling around the perimeter of the Charmian Quarry indicated there were no observed asbestos fibers in any sample.

Prepared by,

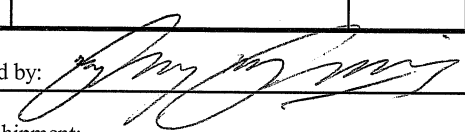
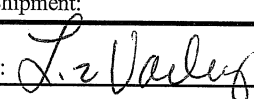


Drew R. Van Orden, PE
Senior Consulting Scientist
drew@rjlg.com
October 3, 2019

Appendix A

Sample Chain of Custody

Project Number: LLH808740 Page 1 of 1

Sample Date	Sample No.	Sample Description	Media	Pump No.	Pre-Flow Rate (L/min)	Start Time	Post-Flow Rate (L/min)	Stop Time	Avg. Flow Rate	Total Time (min)	Volume (L)	Analysis/Notes				
9/18/2019	5306365	#8 West Ridge	0.45MCE		1.98	7:55	1.97	15:58	1.975	483.00	954					
9/18/2019	5306366	#6 West Ridge	0.45MCE		1.91	8:10	1.98	16:11	1.945	481.00	936					
9/18/2019	5306367	#7 Pitts Quarry Overlook	0.45MCE		2.00	8:24	1.97	16:25	1.985	481.00	955					
9/18/2019	5306368	#3 Lower Mill Gate	0.45MCE		1.90	8:38	1.90	16:38	1.900	480.00	912					
9/18/2019	5306369	#1 Plant Entrance	0.45MCE		1.99	8:48	1.99	16:48	1.990	480.00	955					
9/18/2019	5306370	#2 Plunge Pool	0.45MCE		1.95	8:59	1.88	16:59	1.915	480.00	919					
9/18/2019	5306371	#4 East of Pitts Quarry	0.45MCE		2.00	9:11	2.00	17:11	2.000	480.00	960					
9/18/2019	5306372	#9 King Ranch	0.45MCE		1.96	9:30						SGI Pump Failed				
9/18/2019	5306373	#10 North Tract	0.45MCE		1.99	9:36	1.93	17:36	1.960	480.00	941					
9/18/2019	5306374	#5 West of Pitts Quarry	0.45MCE		1.92	10:02						SGI Pump Failed				
9/18/2019	5306375	#5 West of Pitts Quarry	0.45MCE		2.00	10:06						RJLG Pump Failed				
9/18/2019	5306376	Blank - Opened at #5	0.45MCE			10:03						Opened for 30 sec.				
9/18/2019	5306377	Blank-Closed at Office Parking Lot	0.45MCE			10:20										
Chain of Custody	Relinquished by: 		Date/Time 09/19/19		Notes:											
	Method of Shipment:															
	Received by: 		Date/Time 09/19/19													
	Sample Condition Upon Receipt:		Acceptable													
Comments (continue on back of sheet, if necessary):							Please return completed form to the following RJ Lee Group lab:									
							350 Hochberg Road, Monroeville, PA. 15146									
							(724) 325-1776 Voice									

Sample Date	Sample No.	Sample Description	Media	Pump No.	Pre-Flow Rate (L/min)	Start Time	Post-Flow Rate (L/min)	Stop Time	Avg. Flow Rate	Total Time (min)	Volume (L)	Analysis/Notes										
9/25/2019	5306378	5. West of Pitts Quarry	.45MCE	A3-46549	1.94	8:23	1.970	16:23	1.96	480	938											
9/25/2019	5306379	5. West of Pitts Quarry	.45MCE	2	1.95	8:27	2.000	16:27	1.98	480	948											
9/25/2019	5306380	5. West of Pitts Quarry	.45MCE	3	1.96	8:30	2.020	16:30	1.99	480	955											
9/25/2019	5306381	9. King's Ranch	.45MCE	A3-46486	1.89	8:45		16:00	0.95	435	411	<i>Pump Failure</i>										
9/25/2019	5306382	9. King's Ranch	.45MCE	5	1.95	8:47	1.920	16:47	1.94	480	929											
9/25/2019	5306383	9. King's Ranch	.45MCE	A2-41477	1.95	8:53	1.960	16:53	1.96	480	938											
9/25/2019	5306384	Open Blank	.45MCE	N/A		9:03	0.000	9:03	0.00	0	0											
9/25/2019	5306385	Closed Blank	.45MCE	N/A		9:06	0.000	9:06	0.00	0	0											
Chain of Custody	Relinquished by: <i>Roger West</i>						Date/Time <i>8:00 09/26/19</i>		Notes:													
	Method of Shipment: <i>Hand</i>																					
	Received by: <i>Liz Varley</i>						Date/Time <i>9/26/19</i>															
	Sample Condition Upon Receipt: <i>Acceptable</i>																					
Comments (continue on back of sheet, if necessary):							Please return completed form to the following <u>RJ Lee Group</u> lab:															
							<p>350 Hochberg Road, Monroeville, PA. 15146</p> <p>(724) 325-1776 Voice</p>															

Appendix B

Sample Collection Photographs

Sample Site #1 – Plant Entrance

Sampling Date: September 18, 2019





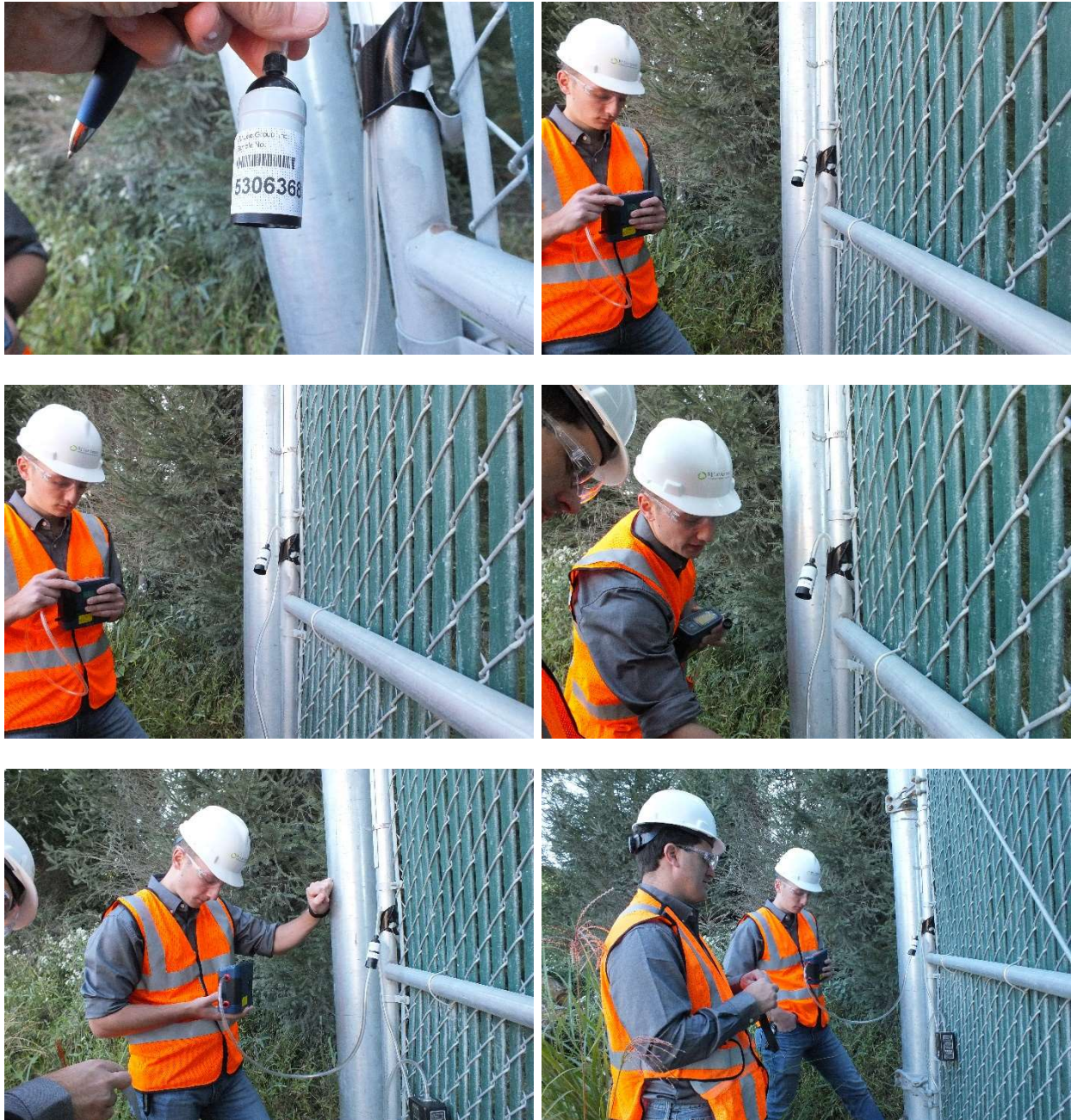
Sample Site #2 – Old Waynesboro Rd at Box Culvert

Sampling Date: September 18, 2019



Sample Site #3 – Lower Mill Gate

Sampling Date: September 18, 2019





Sample Site #4 – East of Pitts Quarry

Sampling Date: September 18, 2019



Sample Site #5 – West of Pitts Quarry

Sampling Date: September 18, 2019





Sample Site #6 – West Ridge

Sampling Date: September 18, 2019



Sample Site #7 – Pitts Quarry Overlook

Sampling Date: September 18, 2019



Sample Site #8 – West Ridge

Sampling Date: September 18, 2019





Sample Site #9 – King Property

Sampling Date: September 18, 2019



Sample Site #10 – North Tract

Sampling Date: September 18, 2019



Sample Site #5 – West of Pitts Quarry

Sampling Date: September 25, 2019





Sample Site #9 – King Property

Sampling Date: September 25, 2019





Appendix C

Analytical Reports

Laboratory Report

K & L Gates
 17 North Second Street
 Harrisburg, PA 17101
 United States
 Attention: R. Timothy Weston
 Telephone: 717-231-4504

Report Date 09/20/2019
 Sample Receipt Date 09/19/2019
 RJ Lee Group Job No. LLH808740-5
 Authorization/P.O. No.
 Client Job No./Name

Analysis: Fibers (≥ 5 μ m long) on Mixed Cellulose Ester Filters

Method: NIOSH 7400, Issue # 2

Filter Size: 25mm

Blank Correction: 0.32 f/mm²

Graticule: .00785 mm²

RJLG Sample Number	Client Sample Number	Volume (Liters)	Fibers	Fields	Uncorrected Fiber Concentrations				Analyst	Analysis Date	Comment
					Fiber Density (f/mm ²)	Concentration (f/mL)	95% Upper Confidence (f/mL)	Limit Of Quantitation (f/mL)			
5306365.HPC	#8 West Ridge	483	3.5	100	<7	<0.0056	<0.0083	0.0056	AKB	09/19/2019	
5306366.HPC	#6 West Ridge	481	2.5	100	<7	<0.0056	<0.0083	0.0056	AKB	09/19/2019	
5306367.HPC	#7 Pitts Quarry Overlook	481	2	100	<7	<0.0056	<0.0083	0.0056	AKB	09/19/2019	

Notes

- Air volumes provided by the client were used to calculate airborne concentrations.
- These results are submitted pursuant to RJ Lee Groups current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
- "<" indicates the fiber density is below the detection limit. A fiber density of 7 f/mm² is used to calculate the quantitation limit.
- Samples will be held for 90 days and then disposed of per Federal regulations.
- Sample(s) for this project were analyzed at our: Monroeville, PA (AIHA #100364, NY ELAP #10884) facility.
- This report relates only to items tested.
- Reproduction of this document must include all pages in order to be valid.
- Intralaboratory Sr Values by Fiber Range: (Range=Sr) (5-20=0.42, >20-50=0.3, >50-100=0.17, >100=0.11).
- Per the requirements of NIOSH 7400, 2 field blanks (or 10% of the total samples, whichever is greater) must be submitted with each set of samples.

Client Job No./Name:

RJ Lee Group Job No: LLH808740-5

RJLG Sample Number	Client Sample Number	Volume (Liters)	Fibers	Fields	Uncorrected Fiber Concentrations				Analyst	Analysis Date	Comment
					Fiber Density (f/mm ²)	Concentration (f/mL)	95% Upper Confidence (f/mL)	Limit Of Quantitation (f/mL)			
5306368.HPC	#3 Lower Mill Gate	480	7	100	8.9	0.0072	0.012	0.0056	AKB	09/19/2019	
5306369.HPC	#1 Plant Entrance	480	27.5	100	35	0.0281	0.0371	0.0056	AKB	09/19/2019	
5306370.HPC	#2 Plunge Pool	480	16	100	20.4	0.0163	0.0234	0.0056	AKB	09/19/2019	
5306371.HPC	#4 East of Pitts Quarry	480	0	100	<7	<0.0056	<0.0083	0.0056	AKB	09/19/2019	
5306372.HPC	#9 King Ranch	61	0	100	<7	<0.0442	<0.0654	0.0442	AKB	09/19/2019	
5306373.HPC	#10 North Tract	480	1.5	100	<7	<0.0056	<0.0083	0.0056	AKB	09/19/2019	
5306374.HPC	#5 West of Pitts Quarry	303	2	100	<7	<0.0089	<0.0132	0.0089	AKB	09/19/2019	
5306375.HPC	#5 West of Pitts Quarry	24	0	100	<7	<0.1124	<0.1661	0.1123	AKB	09/19/2019	
5306376.HPC	Blank	0	0	100	<7	-	-	-	AKB	09/19/2019	
5306377.HPC	Blank	0	0.5	100	<7	-	-	-	AKB	09/19/2019	

Notes

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2. These results are submitted pursuant to RJ Lee Groups current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
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9. Per the requirements of NIOSH 7400, 2 field blanks (or 10% of the total samples, whichever is greater) must be submitted with each set of samples.

Client Job No./Name:

RJ Lee Group Job No:

LLH808740-5

RJLG Sample Number	Client Sample Number	Volume (Liters)	Fibers	Fields	Uncorrected Fiber Concentrations				Analyst	Analysis Date	Comment
					Fiber Density (f/mm ²)	Concentration (f/mL)	95% Upper Confidence (f/mL)	Limit Of Quantitation (f/mL)			

Authorized Signature:

Allan K. Bullock

Allan K. Bullock, Microscopist

Notes

1. Air volumes provided by the client were used to calculate airborne concentrations.
2. These results are submitted pursuant to RJ Lee Groups current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
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9. Per the requirements of NIOSH 7400, 2 field blanks (or 10% of the total samples, whichever is greater) must be submitted with each set of samples.

Laboratory Report

K & L Gates
17 North Second Street
Harrisburg, PA 17101
United States
Attention: R. Timothy Weston
Telephone: 717-231-4504

Report Date 09/27/2019
Sample Receipt Date 09/26/2019
RJ Lee Group Job No. LLH808740-8
Authorization/P.O. No.
Client Job No./Name

Analysis: Fibers (≥ 5 μ m long) on Mixed Cellulose Ester Filters

Method: NIOSH 7400, Issue # 2

Filter Size: 25mm

Blank Correction: 2.23 f/mm²

Graticule: .00785 mm²

RJLG Sample Number	Client Sample Number	Volume (Liters)	Fibers	Fields	Uncorrected Fiber Concentrations				Analyst	Analysis Date	Comment
					Fiber Density (f/mm ²)	Concentration (f/mL)	95% Upper Confidence (f/mL)	Limit Of Quantitation (f/mL)			
5306378.HPC	5. West of Pitts Quarry	938	0	100	<7	<0.0029	<0.0043	0.0029	AKB	09/27/2019	
5306379.HPC	5. West of Pitts Quarry	948	1	100	<7	<0.0028	<0.0042	0.0028	AKB	09/27/2019	

Notes

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- Per the requirements of NIOSH 7400, 2 field blanks (or 10% of the total samples, whichever is greater) must be submitted with each set of samples.

Client Job No./Name:

RJ Lee Group Job No:

LLH808740-8

RJLG Sample Number	Client Sample Number	Volume (Liters)	Fibers	Fields	Uncorrected Fiber Concentrations				Analyst	Analysis Date	Comment
					Fiber Density (f/mm ²)	Concentration (f/mL)	95% Upper Confidence (f/mL)	Limit Of Quantitation (f/mL)			
5306380.HPC	5. West of Pitts Quarry	955	3	100	<7	<0.0028	<0.0042	0.0028	AKB	09/27/2019	
5306382.HPC	9. King's Ranch	929	3	100	<7	<0.0029	<0.0043	0.0029	AKB	09/27/2019	
5306383.HPC	9. King's Ranch	938	3	100	<7	<0.0029	<0.0043	0.0029	AKB	09/27/2019	
5306384.HPC	Open blank	0	0.5	100	<7	-	-	-	AKB	09/27/2019	
5306385.HPC	closed blank	0	3	100	<7	-	-	-	AKB	09/27/2019	

Authorized Signature:



Allan K. Bullock, Microscopist

Notes

- Air volumes provided by the client were used to calculate airborne concentrations.
- These results are submitted pursuant to RJ Lee Groups current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
- "<" indicates the fiber density is below the detection limit. A fiber density of 7 f/mm² is used to calculate the quantitation limit.
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- Per the requirements of NIOSH 7400, 2 field blanks (or 10% of the total samples, whichever is greater) must be submitted with each set of samples.

Final Laboratory Report

TEM ISO Analysis

R. Timothy Weston
 K & L Gates
 17 North Second Street
 Harrisburg, PA 17101
 US

Report Date: 09/27/2019
 Sample Receipt Date: 09/19/2019
 RJ Lee Group Job No.: LLH808740-7
 Authorization/P.O. No.:
 Samples Received: 10
 Client Job No.:

Method: ISO 10312, 1st Edition 1995-05-01

TABLE 1 -- Total Asbestos Structures Concentration

Client Sample Number	RJLG Sample Number	Sample Description	Filter Area (mm ²)	Dilution Factor	Volume (liter)	Area Analyzed (mm ²)	Total Asbestos		95% Confidence Interval		Analytical Sensitivity (S/L)	Total Asbestos Concentration (S/L)	
							Chry	Amph	Chry	Amph		Chry	Amph
#8 West Ridge	5306365.HT		385	1	954	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.120	< 1.120	< 1.120
#6 West Ridge	5306366.HT		385	1	936	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.141	< 1.141	< 1.141
#7 Pitts Quarry Overlook	5306367.HT	Analysis Rejected	---	---	---	---	---	---	---	---	---	---	---
#3 Lower Mill Gate	5306368.HT		385	1	912	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.171	< 1.171	< 1.171

NOTES

- Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
- "<" indicates results less than analytical sensitivity. "----" indicates that sample was not analyzed.
- If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
- Abbreviations: N/A-Not Applicable, O/L-Overloaded, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, NAS-Non-Asbestos Structures, f-Asbestos Fibers, F-Total Fibers.
- Samples will be held for 90 days and then disposed of per Federal regulations.
- Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
- These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.

DISCLAIMER

RJ Lee Group, Inc. is accredited by the American Industrial Hygenest Association (AIHA-LAP, LLC) and the New York Department of Health Environmental Laboratory Program (NY ELAP) for airborne asbestos analysis. This report may not be used to claim product endorsement by AIHA, NY ELAP, or any other regulatory or laboratory accrediting agency. Any reproduction of this document must be in full in order for the report to be valid. This report is not valid unless it bears the name of a AIHA approved signatory.

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RJ Lee Group Job No: LLH808740-7
Client Job No/Name:

Client: K & L Gates
Report Date: 09\27\2019

TABLE 1 -- Total Asbestos Structures Concentration

Client Sample Number	RJLG Sample Number	Sample Description	Filter Area (mm ²)	Dilution Factor	Volume (liter)	Area Analyzed (mm ²)	Total Asbestos		95% Confidence Interval		Analytical Sensitivity (S/L)	Total Asbestos Concentration (S/L)	
							Chry	Amph	Chry	Amph		Chry	Amph
#1 Plant Entrance	5306369.HT		385	1	955	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.119	< 1.119	< 1.119
#2 Plunge Pool	5306370.HT		385	1	919	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.163	< 1.163	< 1.163
#4 East of Pitts Quarry	5306371.HT		385	1	960	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.113	< 1.113	< 1.113
#10 North Tract	5306373.HT		385	1	941	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.135	< 1.135	< 1.135
Blank	5306376.HT	open at #5 West of Pitts Quarry	385	1	0	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A
Blank	5306377.HT	closed at office parking lot	385	1	0	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A

NOTES

- Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
- "<" indicates results less than analytical sensitivity. "----" indicates that sample was not analyzed.
- If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
- Abbreviations: N/A-Not Applicable, O/L-Overloaded, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, NAS-Non-Asbestos Structures, f-Asbestos Fibers, F-Total Fibers.
- Samples will be held for 90 days and then disposed of per Federal regulations.
- Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
- These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.

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RJ Lee Group Job No: LLH808740-7
Client Job No/Name:

Client: K & L Gates
Report Date: 09/27/2019

TABLE 2 -- Asbestos Structures >= 5µm Length

Client Sample Number	RJLG Sample Number	Sample Description	Filter Area (mm²)	Dilution Factor	Volume (liter)	Area Analyzed (mm²)	Total Asbestos		95% Confidence Interval		Analytical Sensitivity (S/L)	Total Asbestos Concentration (S/L)	
							Chrv	Amph	Chrv	Amph		Chrv	Amph
#8 West Ridge	5306365.HT		385	1	954	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.120	< 1.120	< 1.120
#6 West Ridge	5306366.HT		385	1	936	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.141	< 1.141	< 1.141
#7 Pitts Quarry Overlook	5306367.HT	Analysis Rejected	---	---	---	---	---	---	---	---	---	---	---
#3 Lower Mill Gate	5306368.HT		385	1	912	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.171	< 1.171	< 1.171
#1 Plant Entrance	5306369.HT		385	1	955	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.119	< 1.119	< 1.119
#2 Plunge Pool	5306370.HT		385	1	919	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.163	< 1.163	< 1.163
#4 East of Pitts Quarry	5306371.HT		385	1	960	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.113	< 1.113	< 1.113
#10 North Tract	5306373.HT		385	1	941	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.135	< 1.135	< 1.135

NOTES

- Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
- "<" indicates results less than analytical sensitivity. "----" indicates that sample was not analyzed.
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- Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
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RJ Lee Group Job No: LLH808740-7
Client Job No/Name:

Client: K & L Gates
Report Date: 09/27/2019

TABLE 2 -- Asbestos Structures >= 5µm Length

Client Sample Number	RJLG Sample Number	Sample Description	Filter Area (mm ²)	Dilution Factor	Volume (liter)	Area Analyzed (mm ²)	Total Asbestos		95% Confidence Interval		Analytical Sensitivity (S/L)	Total Asbestos Concentration (S/L)	
							Chrv	Amph	Chrv	Amph		Chrv	Amph
Blank	5306376.HT	open at #5 West of Pitts Quarry	385	1	0	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A
Blank	5306377.HT	closed at office parking lot	385	1	0	0.36035	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A



Authorized Signature: _____
Monica McGrath-Koerner, Scientist

NOTES

- Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
- "<" indicates results less than analytical sensitivity. "----" indicates that sample was not analyzed.
- If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
- Abbreviations: N/A-Not Applicable, O/L-Overloaded, Chrv-Chrysotile Asbestos, Amph-Amphibole Asbestos, NAS-Non-Asbestos Structures, f-Asbestos Fibers, F-Total Fibers.
- Samples will be held for 90 days and then disposed of per Federal regulations.
- Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
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RJL: LLH808740-7	5306365.HT	Microscope tem2000fx2	Grid Openings	40
#8 West Ridge	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 954 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	1
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	1

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18	1		7.1	1.1	AQ	11	MgSiCaFeAl5489D		Image2	Diff4	Acti	Cle
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
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31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

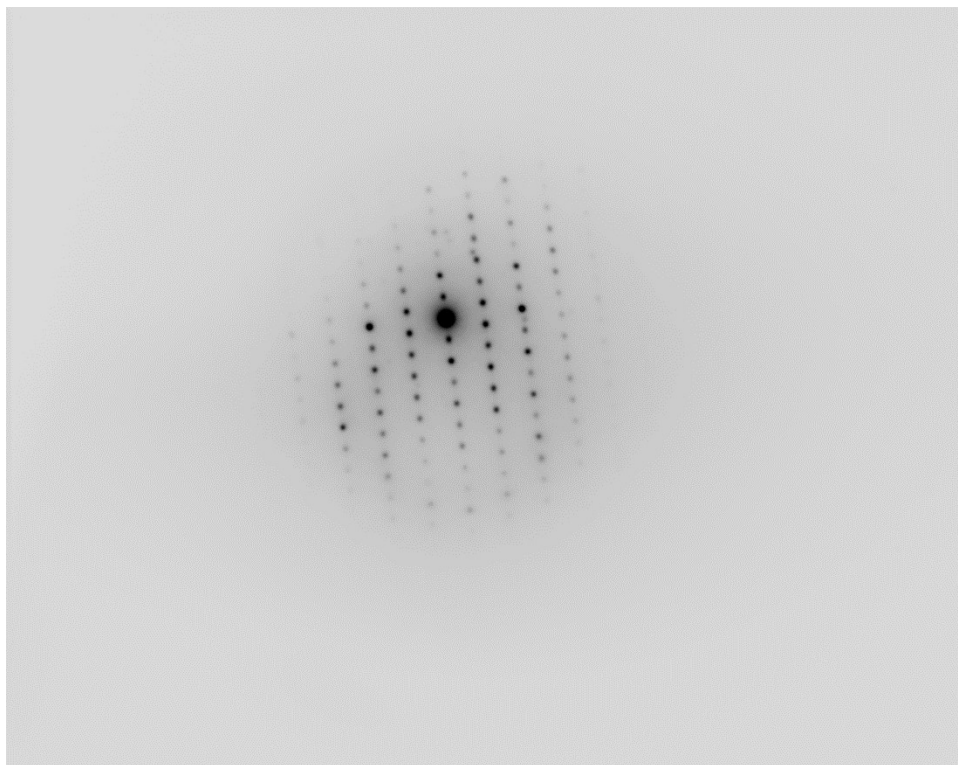
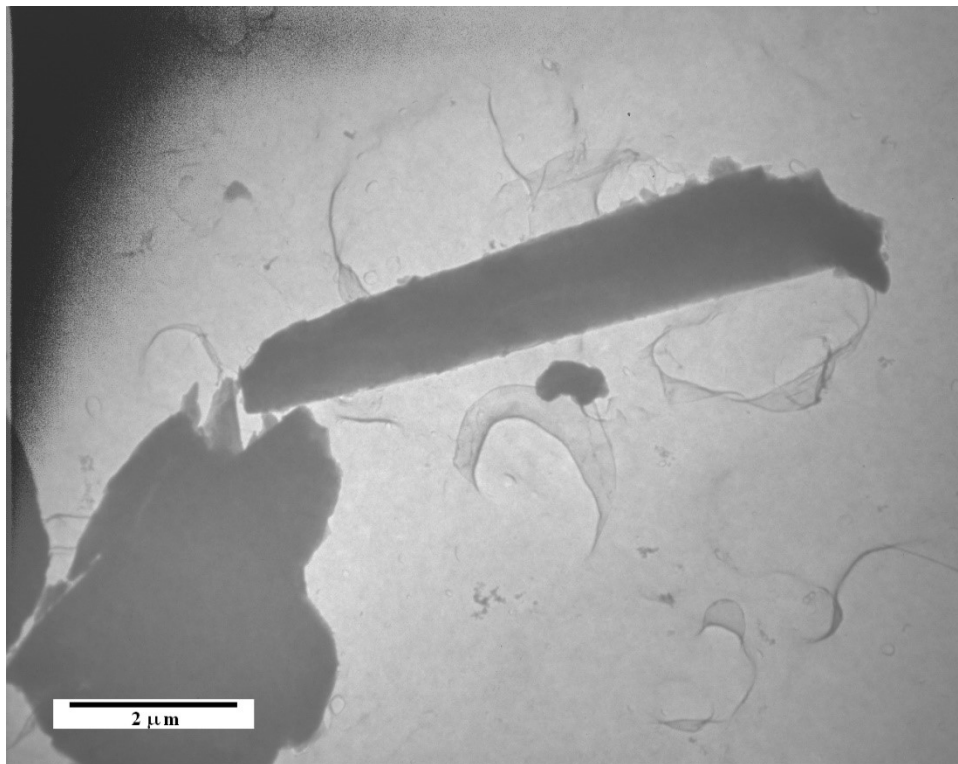
3% Particulate

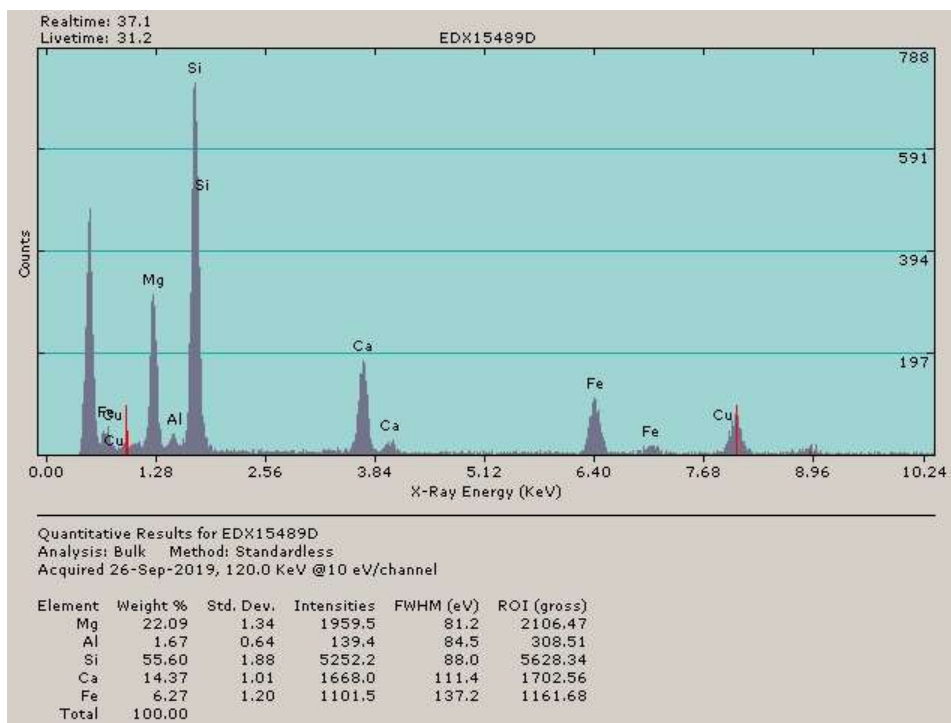
Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 12:36:05 PM approve by Jon Swope

Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

Sample 5306365
Field 18, Fiber 1





RJL: LLH808740-7	5306366.HT	Microscope tem2000fx1	Grid Openings	40
#6 West Ridge	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 936 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Ashleigh Sload	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
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21					NSD							
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31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

4% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 12:27:50 PM approve by Ashleigh Sload

Final Review: 9/27/2019 2:15:00 PM approve by Monica Mcgrath

RJL: LLH808740-7	5306368.HT	Microscope tem2000fx2	Grid Openings	40
#3 Lower Mill Gate	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 912 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	1
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	1

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplD	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15	1		9.7	0.55	AQ	11	MgSiCaFe	15490D	Image1	Diff1	Acti	Cle
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
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33					NSD							
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37					NSD							
38					NSD							
39					NSD							
40					NSD							

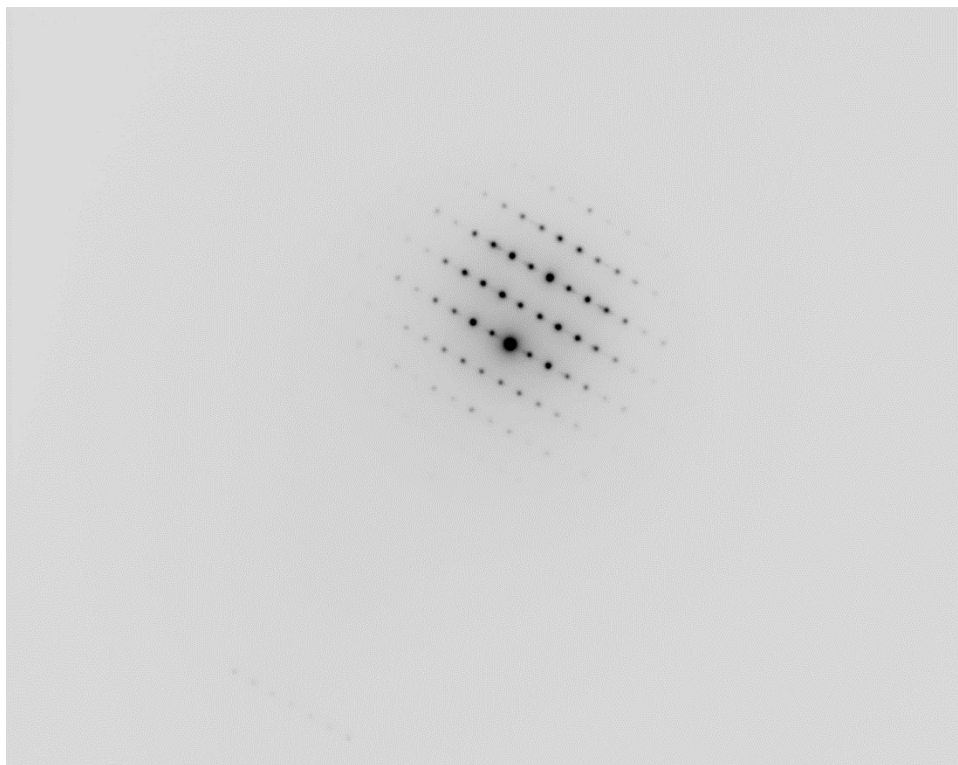
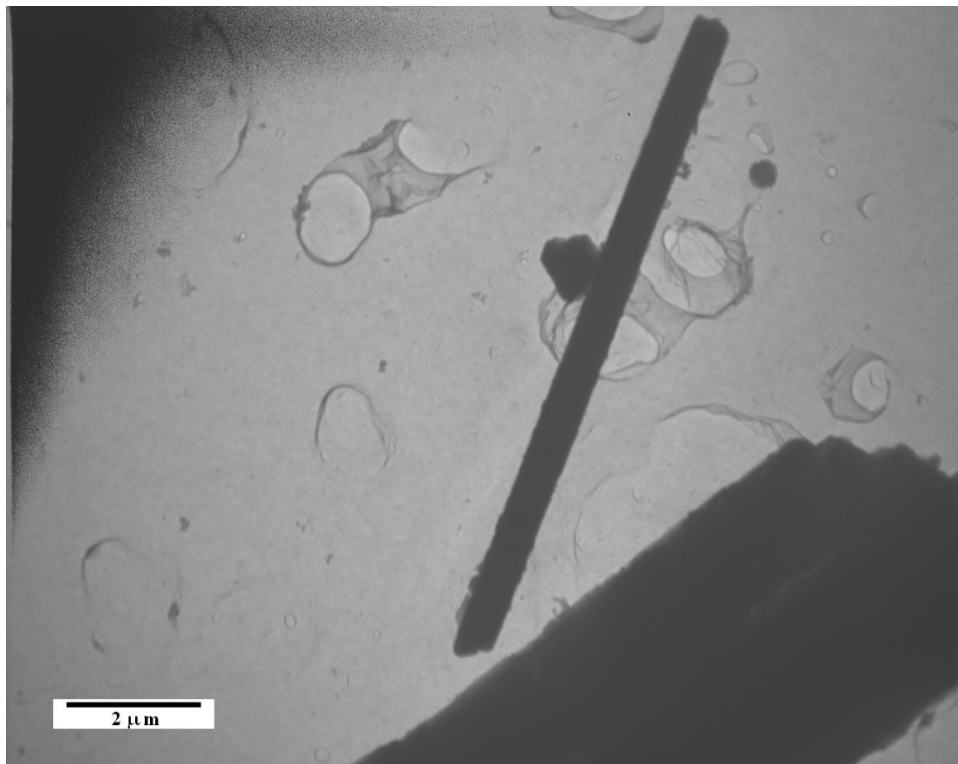
5% Particulate

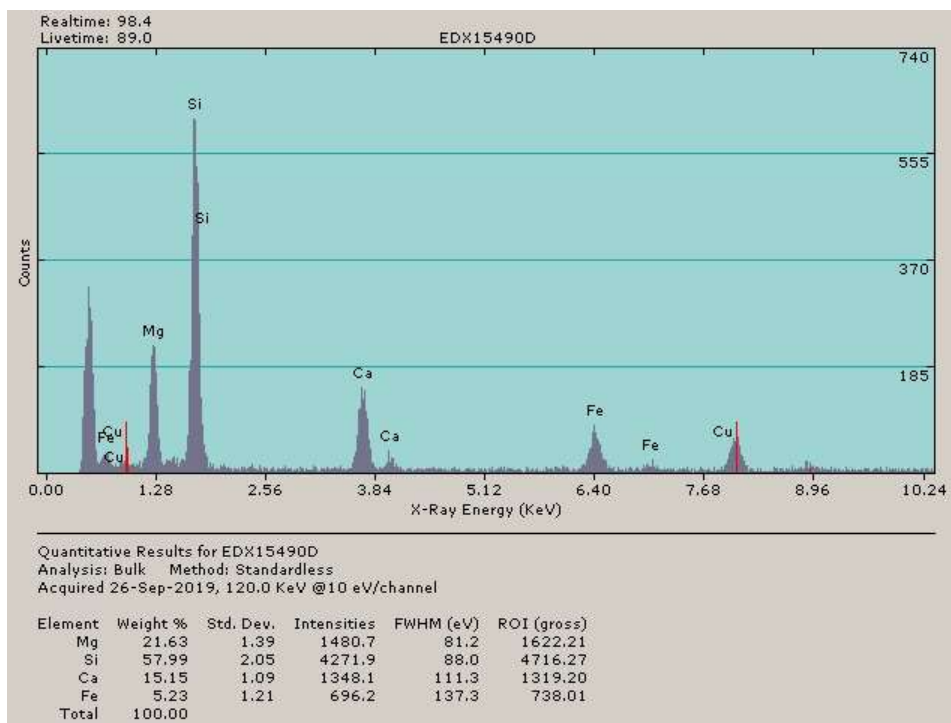
Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 1:01:04 PM approve by Jon Swope

Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

Sample 5306368
Field 15, Fiber 1





RJL: LLH808740-7	5306369.HT	Microscope tem2000fx1	Grid Openings	40
#1 Plant Entrance	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 955 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	2
Level of Analysis:	CM/AQ	Operator: Ashleigh Sload	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	2

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplD	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12	1		5.9	0.55	AQ	11	MgSiCaFe	15732C	Image1	Diff1 Diff2	Acti	Cle
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
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26					NSD							
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31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37	1		9.1	0.9	AQ	11	MgSiCaFe	15733C	Image2	Diff3	Acti	Cle
38					NSD							
39					NSD							
40					NSD							

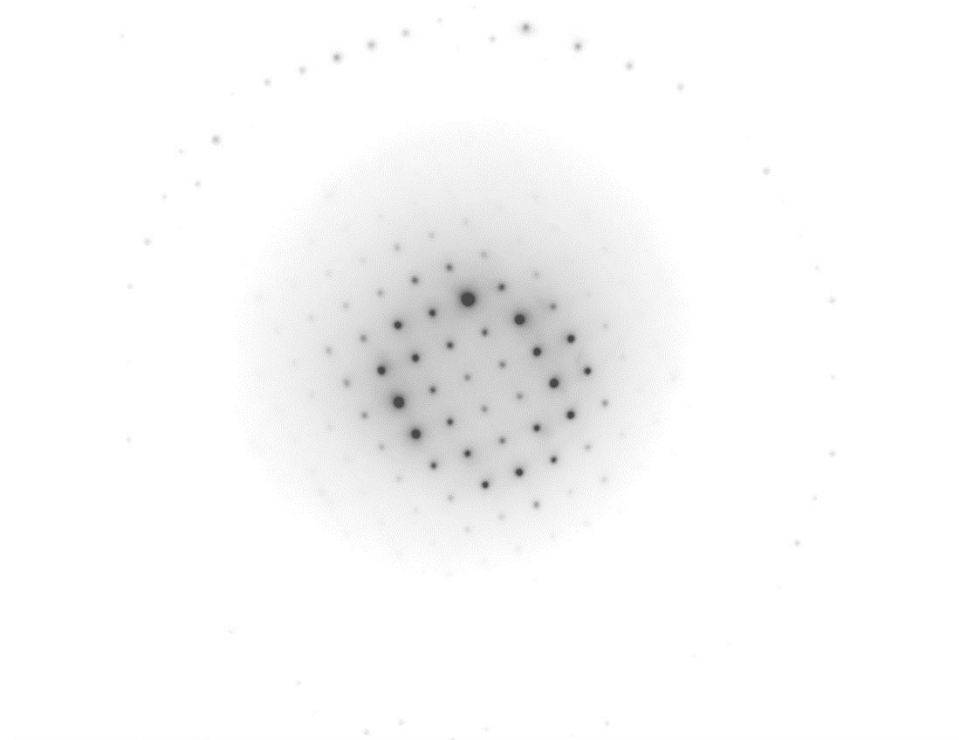
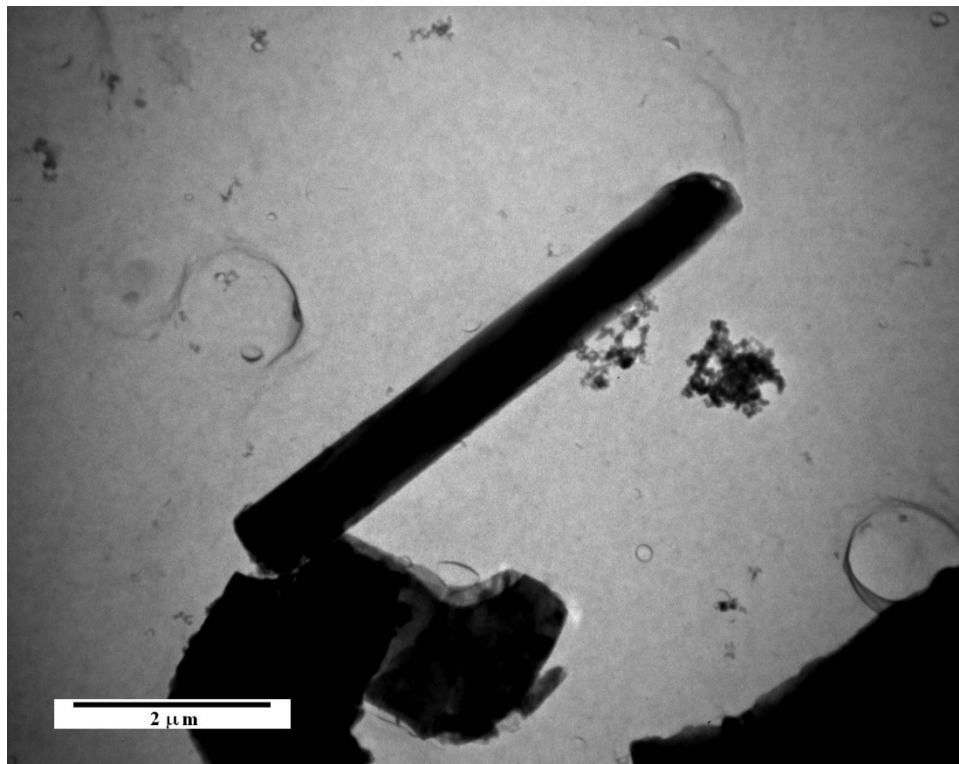
10% Particulate

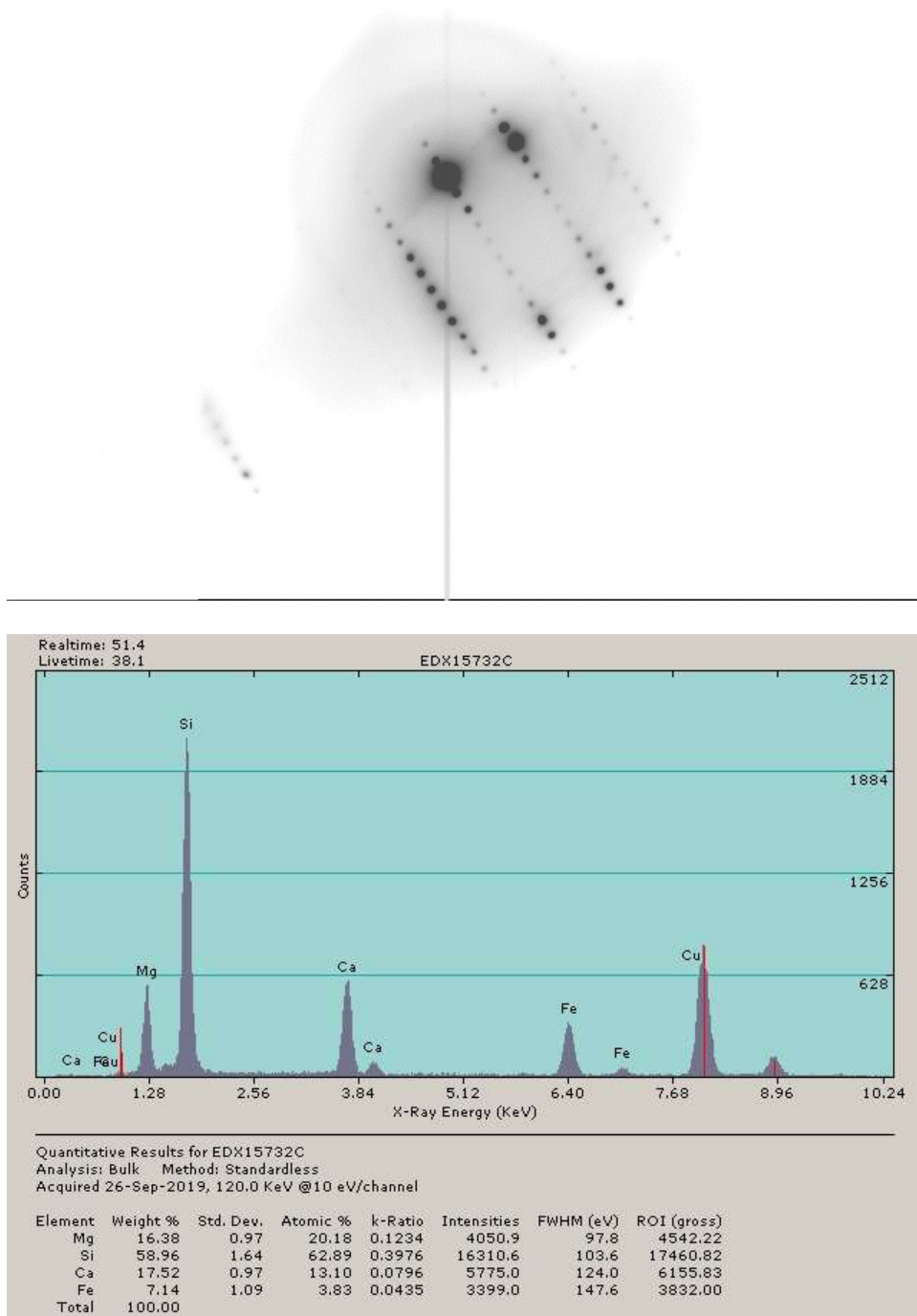
Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 1:58:26 PM approve by Ashleigh Sload

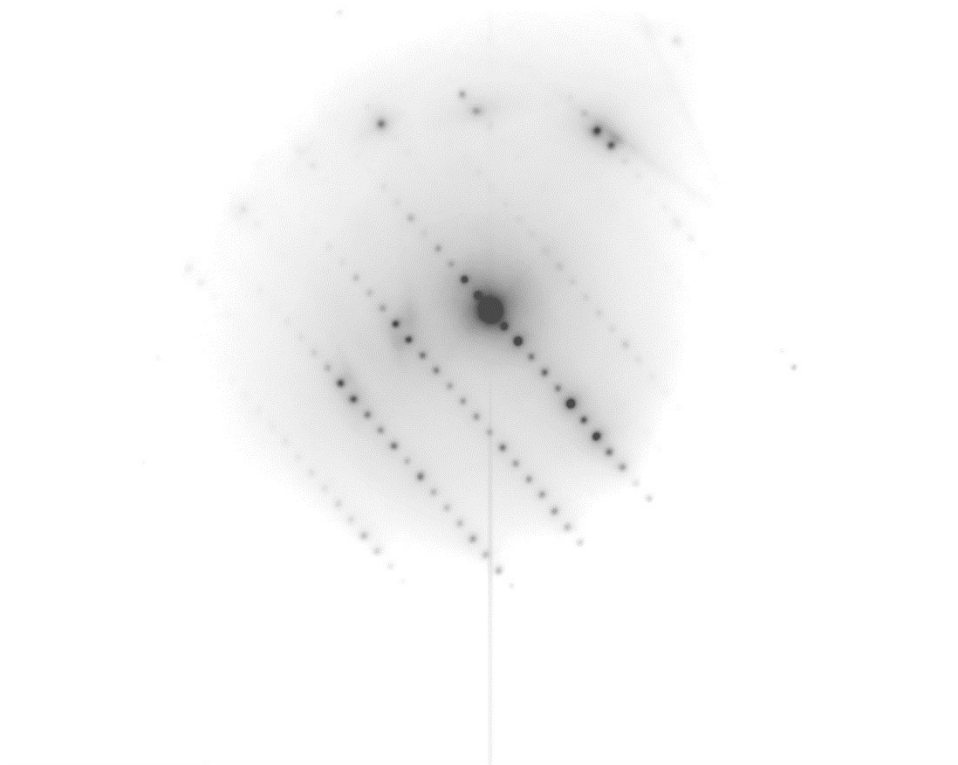
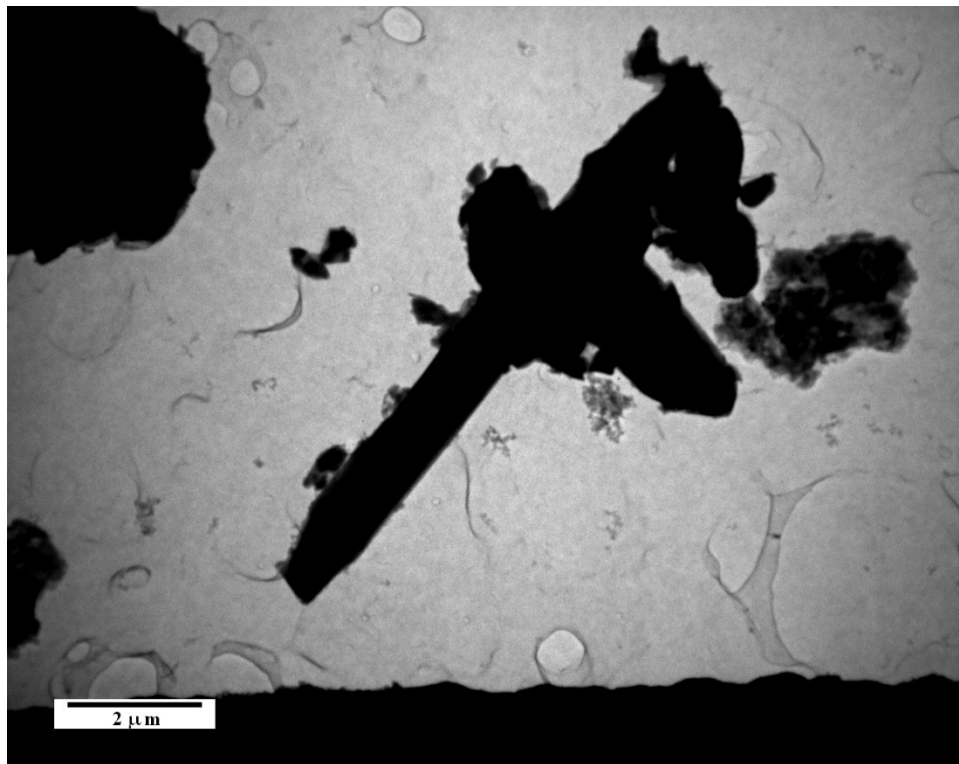
Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

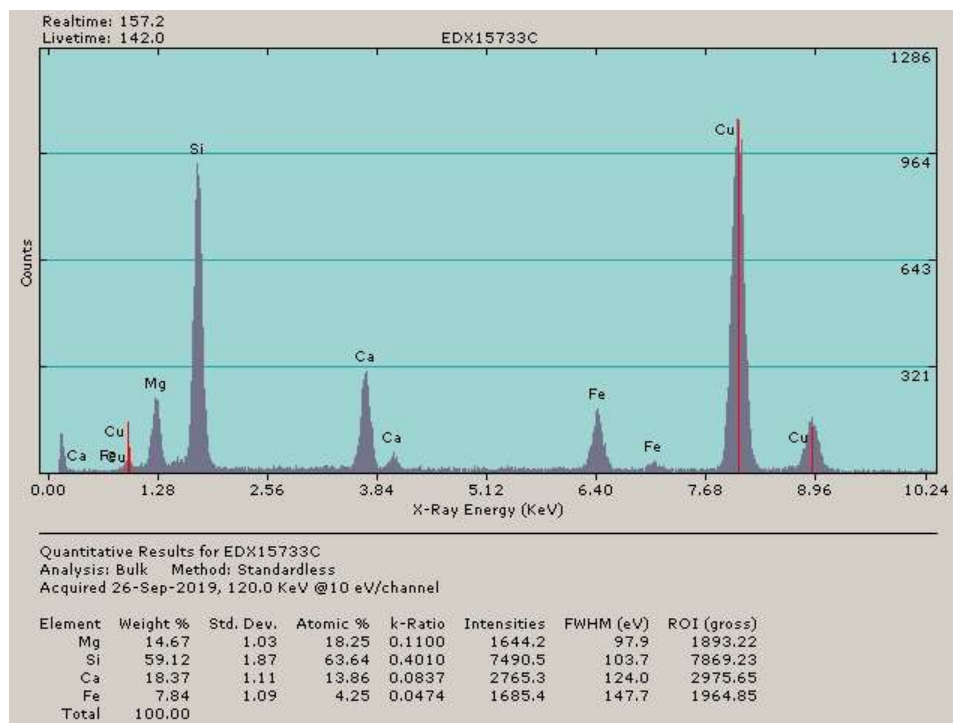
Sample 5306369
Field 12 Fiber 1





Sample 5306369
Field 37 Fiber 1





RJL: LLH808740-7	5306370.HT	Microscope tem2000fx2	Grid Openings	40
#2 Plunge Pool	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 919 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	1
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	1

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24	1		7.9	0.98	AQ	11	MgSiCaFe	15491D	Image1	Diff1	Acti	Cle
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
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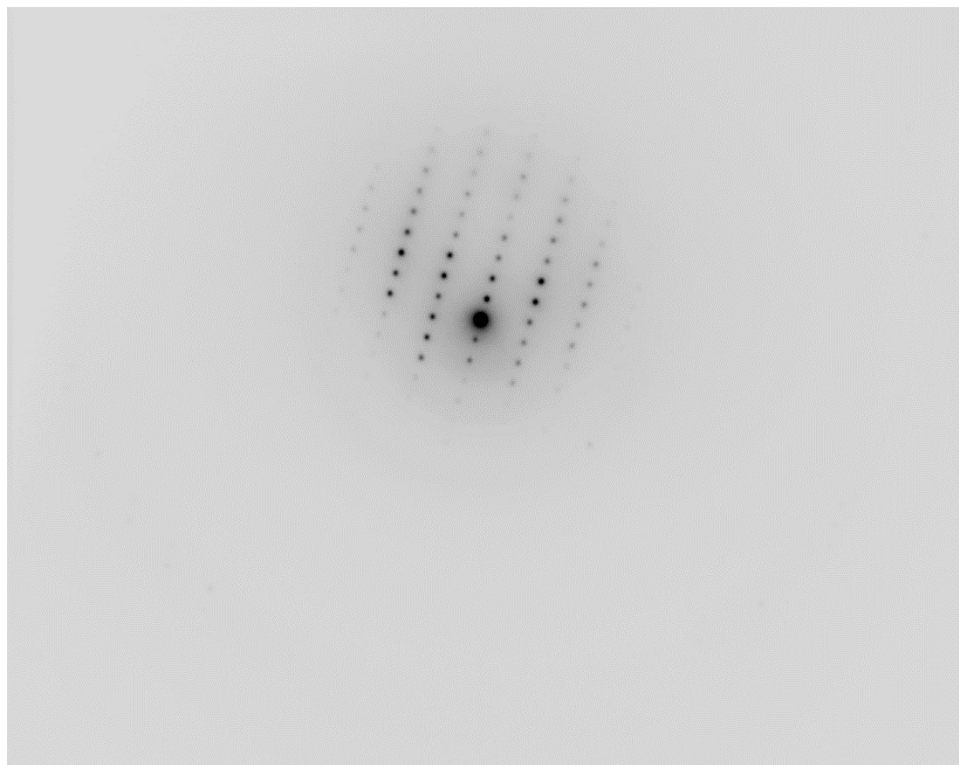
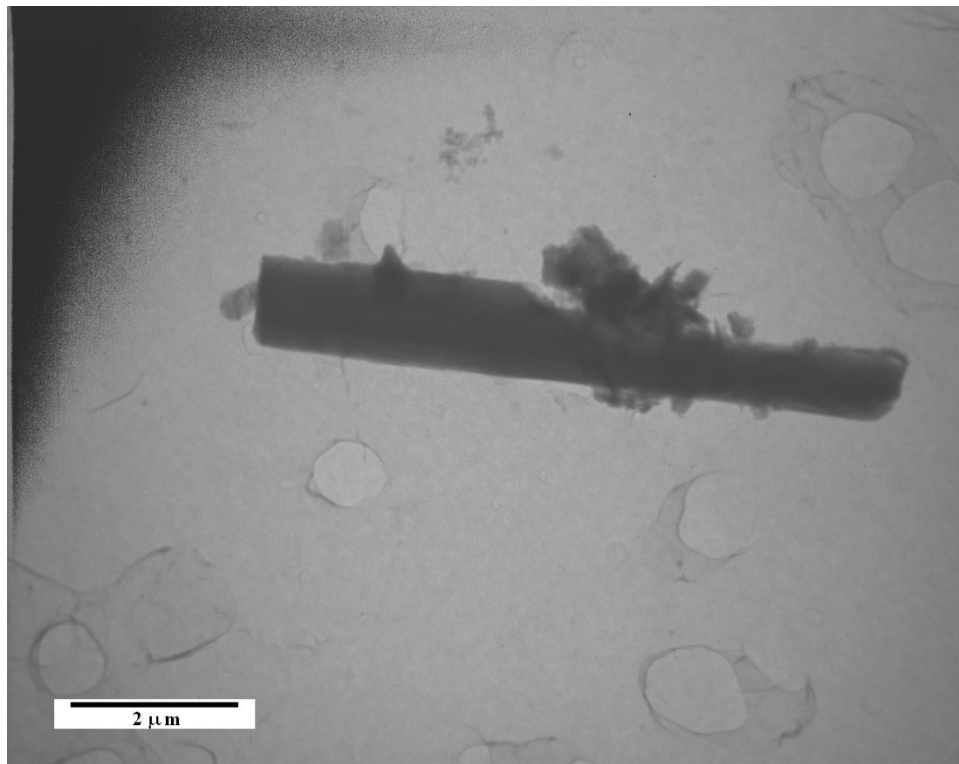
4% Particulate

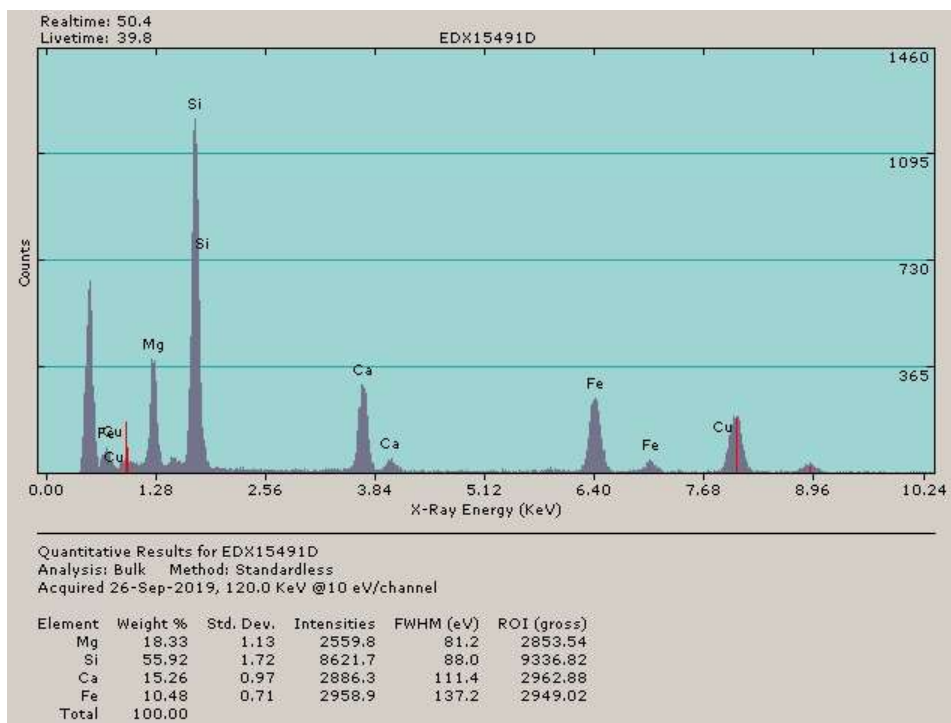
Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 1:36:58 PM approve by Jon Swope

Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

Sample 5306370
Field 24, Fiber 1





RJL: LLH808740-7	5306371.HT	Microscope tem2000fx2	Grid Openings	40
#4 East of Pitts	K & L Gates	Magnification 21 KX	Asbestos	0
Quarry				
Vol: 960 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
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21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

3% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 1:45:58 PM approve by Jon Swope

Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

RJL: LLH808740-7	5306373.HT	Microscope tem2000fx2	Grid Openings	40
#10 North Tract	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 941 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

2% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 1:58:16 PM approve by Jon Swope

Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

RJL: LLH808740-7	5306376.HT	Microscope tem2000fx2	Grid Openings	40
Blank	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 0 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

1% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 2:12:11 PM approve by Jon Swope

Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

RJL: LLH808740-7	5306377.HT	Microscope tem2000fx1	Grid Openings	40
Blank	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 0 liter(s)	Grid: 0.009 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Ashleigh Sload	Asbestos >= 5µm	0
Filter Size: 25 mm	HQ44671	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

1% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/26/2019 2:06:40 PM approve by Ashleigh Sload

Final Review: 9/27/2019 2:15:00 PM approve by Monica McGrath

Final Laboratory Report

TEM ISO Analysis

R. Timothy Weston
 K & L Gates
 17 North Second Street
 Harrisburg, PA 17101
 US

Report Date: 09/30/2019
 Sample Receipt Date: 09/27/2019
 RJ Lee Group Job No.: LLH808740-9
 Authorization/P.O. No.:
 Samples Received: 7
 Client Job No.:

Method: ISO 10312, 1st Edition 1995-05-01

TABLE 1 -- Total Asbestos Structures Concentration

Client Sample Number	RJLG Sample Number	Sample Description	Filter Area (mm ²)	Dilution Factor	Volume (liter)	Area Analyzed (mm ²)	Total Asbestos		95% Confidence Interval		Analytical Sensitivity (S/L)	Total Asbestos Concentration (S/L)	
							Chry	Amph	Chry	Amph		Chry	Amph
5. West of Pitts Quarry	5306378.HT	collected 9/25/19	385	1	938	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.127	< 1.127	< 1.127
5. West of Pitts Quarry	5306379.HT	collected 9/25/19	385	1	948	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.116	< 1.116	< 1.116
5. West of Pitts Quarry	5306380.HT	collected 9/25/19	385	1	955	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.107	< 1.107	< 1.107
9. King's Ranch	5306382.HT	collected 9/25/19	385	1	929	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.138	< 1.138	< 1.138

NOTES

- Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
- "<" indicates results less than analytical sensitivity. "---" indicates that sample was not analyzed.
- If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
- Abbreviations: N/A-Not Applicable, O/L-Overloaded, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, NAS-Non-Asbestos Structures, f-Asbestos Fibers, F-Total Fibers.
- Samples will be held for 90 days and then disposed of per Federal regulations.
- Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
- These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.

DISCLAIMER

RJ Lee Group, Inc. is accredited by the American Industrial Hygienist Association (AIHA-LAP, LLC) and the New York Department of Health Environmental Laboratory Program (NY ELAP) for airborne asbestos analysis. This report may not be used to claim product endorsement by AIHA, NY ELAP, or any other regulatory or laboratory accrediting agency. Any reproduction of this document must be in full in order for the report to be valid. This report is not valid unless it bears the name of a AIHA approved signatory.

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limiting provisions and no responsibility or liability is assumed for the manner in which the results are used or interpreted. Unless notified in writing to return the samples covered by this report, RJ Lee Group will store the samples for a period of ninety (90) days before discarding. A shipping and handling fee will be assessed for the return of any sample.

RJ Lee Group, Inc.

RJ Lee Group Job No: LLH808740-9
Client Job No/Name:

Final Laboratory Report (cont'd)

Client: K & L Gates
Report Date: 09/30/2019

TABLE 1 -- Total Asbestos Structures Concentration

Client Sample Number	RJLG Sample Number	Sample Description	Filter Area (mm ²)	Dilution Factor	Volume (liter)	Area Analyzed (mm ²)	<u>Total Asbestos</u>		95% Confidence Interval		Analytical Sensitivity (S/L)	Total Asbestos Concentration (S/L)	
							Chry	Amph	Chry	Amph		Chry	Amph
9. King's Ranch	5306383.HT	collected 9/25/19	385	1	938	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.127	< 1.127	< 1.127
Open blank	5306384.HT	collected 9/25/19	385	1	0	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A
closed blank	5306385.HT	collected 9/25/19	385	1	0	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A

NOTES

- Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
- "<" indicates results less than analytical sensitivity. "---" indicates that sample was not analyzed.
- If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
- Abbreviations: N/A-Not Applicable, O/L-Overloaded, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, NAS-Non-Asbestos Structures, f-Asbestos Fibers, F-Total Fibers.
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- Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
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RJ Lee Group, Inc.

RJ Lee Group Job No: LLH808740-9
Client Job No/Name:

Final Laboratory Report (cont'd)

Client: K & L Gates
Report Date: 09\30\2019

TABLE 2 -- Asbestos Structures >= 5 µ m Length

Client Sample Number	RJLG Sample Number	Sample Description	Filter Area (mm ²)	Dilution Factor	Volume (liter)	Area Analyzed (mm ²)	Total Asbestos		95% Confidence Interval		Analytical Sensitivity (S/L)	Total Asbestos Concentration (S/L)	
							Chry	Amph	Chry	Amph		Chry	Amph
5. West of Pitts Quarry	5306378.HT	collected 9/25/19	385	1	938	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.127	< 1.127	< 1.127
5. West of Pitts Quarry	5306379.HT	collected 9/25/19	385	1	948	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.116	< 1.116	< 1.116
5. West of Pitts Quarry	5306380.HT	collected 9/25/19	385	1	955	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.107	< 1.107	< 1.107
9. King's Ranch	5306382.HT	collected 9/25/19	385	1	929	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.138	< 1.138	< 1.138
9. King's Ranch	5306383.HT	collected 9/25/19	385	1	938	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	1.127	< 1.127	< 1.127
Open blank	5306384.HT	collected 9/25/19	385	1	0	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A
closed blank	5306385.HT	collected 9/25/19	385	1	0	0.36404	<u>0</u>	<u>0</u>	0 - 3	0 - 3	N/A	N/A	N/A

NOTES

- Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
- "<" indicates results less than analytical sensitivity. "----" indicates that sample was not analyzed.
- If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
- Abbreviations: N/A-Not Applicable, O/L-Overloaded, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, NAS-Non-Asbestos Structures, f-Asbestos Fibers, F-Total Fibers.
- Samples will be held for 90 days and then disposed of per Federal regulations.
- Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
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RJ Lee Group, Inc.

RJ Lee Group Job No: LLH808740-9

Client Job No/Name:

Final Laboratory Report (cont'd)

Client:

K & L Gates

Report Date:

09\30\2019

Authorized Signature:



Ashleigh Sload, Scientist

NOTES

1. Volumes provided by the client listed above were used to calculate analytical results and sensitivities.
2. "<" indicates results less than analytical sensitivity. "---" indicates that sample was not analyzed.
3. If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
4. Abbreviations: N/A-Not Applicable, O/L-Overloaded, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, NAS-Non-Asbestos Structures, f-Asbestos Fibers, F-Total Fibers.
5. Samples will be held for 90 days and then disposed of per Federal regulations.
6. Sample(s) for this project were analyzed at our Monroeville, PA (NVLAP Lab Code 101208-0, NY ELAP #10884) facility.
7. These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.

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RJL: LLH808740-9	5306378.HT	Microscope tem2000fx2	Grid Openings	40
5. West of Pitts	K & L Gates	Magnification 21 KX	Asbestos	0
Quarry				
Vol: 938 liter(s)	Grid: 0.0091 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25mm	HQ44682	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

2% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/30/2019 10:13:04 AM approve by Jon Swope

Final Review: 9/30/19 2:22 PM approve by Ashleigh Sload

RJL: LLH808740-9	5306379.HT	Microscope tem2000fx2	Grid Openings	40
5. West of Pitts	K & L Gates	Magnification 21 KX	Asbestos	0
Quarry				
Vol: 948 liter(s)	Grid: 0.0091 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25mm	HQ44682	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

2% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/30/2019 10:46:51 AM approve by Jon Swope

Final Review: 9/30/19 2:22 PM approve by Ashleigh Sload

RJL: LLH808740-9	5306380.HT	Microscope tem2000fx2	Grid Openings	40
5. West of Pitts	K & L Gates	Magnification 21 KX	Asbestos	0
Quarry				
Vol: 955 liter(s)	Grid: 0.0091 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25mm	HQ44682	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

4% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/30/2019 10:54:44 AM approve by Jon Swope

Final Review: 9/30/19 2:22 PM approve by Ashleigh Sload

RJL: LLH808740-9	5306382.HT	Microscope tem2000fx2	Grid Openings	40
9. King's Ranch	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 929 liter(s)	Grid: 0.0091 mm ²	Acc. Voltage 120 KV	Nonasbestos	1
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25mm	HQ44682	Cv = 0	Nonasbestos >= 5µm	1

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38	1		6.7	1.1	AQ	11	MgSiCaFe15499D	Image1	Diff1	Acti	Cle	
39					NSD							
40					NSD							

3% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/30/2019 11:17:36 AM approve by Jon Swope

Final Review: 9/30/19 2:22 PM approve by Ashleigh Sload

RJL: LLH808740-9	5306383.HT	Microscope tem2000fx2	Grid Openings	40
9. King's Ranch	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 938 liter(s)	Grid: 0.0091 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25mm	HQ44682	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

3% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/30/2019 11:26:47 AM approve by Jon Swope

Final Review: 9/30/19 2:22 PM approve by Ashleigh Sload

RJL: LLH808740-9	5306384.HT	Microscope tem2000fx2	Grid Openings	40
Open blank	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 0 liter(s)	Grid: 0.0091 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25mm	HQ44682	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

1% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/30/2019 11:29:45 AM approve by Jon Swope

Final Review: 9/30/19 2:22 PM approve by Ashleigh Sload

RJL: LLH808740-9	5306385.HT	Microscope tem2000fx2	Grid Openings	40
closed blank	K & L Gates	Magnification 21 KX	Asbestos	0
Vol: 0 liter(s)	Grid: 0.0091 mm ²	Acc. Voltage 120 KV	Nonasbestos	0
Level of Analysis:	CM/AQ	Operator: Jon Swope	Asbestos >= 5µm	0
Filter Size: 25mm	HQ44682	Cv = 0	Nonasbestos >= 5µm	0

Field	Fiber	SubStr	Length	Width	FiberType	Morph	EDX	File#	Photo	SAED	AmplID	C/A
1					NSD							
2					NSD							
3					NSD							
4					NSD							
5					NSD							
6					NSD							
7					NSD							
8					NSD							
9					NSD							
10					NSD							
11					NSD							
12					NSD							
13					NSD							
14					NSD							
15					NSD							
16					NSD							
17					NSD							
18					NSD							
19					NSD							
20					NSD							
21					NSD							
22					NSD							
23					NSD							
24					NSD							
25					NSD							
26					NSD							
27					NSD							
28					NSD							
29					NSD							
30					NSD							
31					NSD							
32					NSD							
33					NSD							
34					NSD							
35					NSD							
36					NSD							
37					NSD							
38					NSD							
39					NSD							
40					NSD							

1% Particulate

Abbreviations: F - Fiber, C - Cluster, B - Bundle, M - Matrix, Cle - Cleavage, Asb - Asbestiform, Bys - Byssolite

Initial Review: 9/30/2019 11:59:02 AM approve by Jon Swope

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