RJ Lee Group, Inc
350 Hochberg Road
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Final Laboratory Report

TEM EPA Water Analysis

Mr. David Raphael
K & L Gates
17 North Second Street
18th Floor
Harrisburg, PA 17101
US

Report Date: 05/01/2019
Sample Receipt Date: 04/23/2019
RJ Lee Group Job No.: LLH901997-4
Authorization/P.O. No.:
Samples Received: 7
Client Job No.:

Method: EPA Method 100.2 600/R-94-134

Client Sample Number	RJLG Sample Number	Date Prepped	Date Analyzed	Filter Area (mm^2)	Volume (ml)	Area Analyzed (mm^2)	Confidence Interval >10 µm	Asbestos Structures >10 µm Chry	Asbestos Structures >10 µm Amph	Analytical Sensitivity (MFL) >10 µm	Concentration (MFL) >10 µm
#1 NPDES Outfall	3158173.HTW1	04/24/2019	04/29/2019	1220	20	0.31072	0-4	0	0	0.2	< 0.2
#2 Sed. Trap 2	3158174.HTW1	04/24/2019	04/29/2019	1220	2	0.61203	0-4	0	0	1.0	< 1.0
#3 Sed. Basin 2	3158175.HTW1	04/24/2019	04/29/2019	1220	10	0.12241	0-4	0	0	1.0	< 1.0
#4 Sed. Basin 1	3158176.HTW2	04/24/2019	04/29/2019	1220	10	0.12241	0-4	0	0	1.0	< 1.0
#5 Quarry Pit	3158177.HTW1	04/24/2019	04/30/2019	1220	20	0.31072	0-4	0	0	0.2	< 0.2
#6 Sed. Trap 1	3158178.HTW3	04/29/2019	04/30/2019	1220	0.5	2.44812	0-4	0	0	1.0	< 1.0
#7 Sed. Trap 3	3158179.HTW1	04/24/2019	04/29/2019	1220	5	0.24481	0-4	0	0	1.0	< 1.0

NOTES

1. Water samples collected more than 24 hours before receipt may be out of compliance. Drinking water samples are filtered within 24 hours of receipt.
2. "<" indicates results less than analytical sensitivity. "---" indicates that sample was not analyzed.
3. Sample(s) for this project were analyzed at our: Monroeville, PA (AIHA #100364, NVLAP #101208-0, NY ELAP #10884) facility.
4. If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.
5. Abbreviations: N/A-Not Applicable, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, MFL-million fibers per liter.
6. Samples will be held for 30 days and then disposed of per Federal regulations.
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.

DISCLAIMER

RJ Lee Group, Inc. is accredited by the New York Department of Health Environmental Laboratory Program (NY ELAP) and the Pennsylvania Department of Environmental Protection (PA DEP) for asbestos in water analysis by TEM. This report may not be used to claim product endorsement by NY ELAP, PA DEP 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 NY ELAP and PA-DEP 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 thirty (30) days before discarding. A shipping and handling fee will be assessed for the return of any sample.

RJ Lee Group, Inc.

Final Laboratory Report (cont'd)

RJ Lee Group Job No: LLH901997-4
Client Job No/Name:

Client: K & L Gates
Report Date: 05\01\2019

Authorized Signature: _____

Monica McGrath-Koerner, Scientist

NOTES

1. Water samples collected more than 24 hours before receipt may be out of compliance. Drinking water samples are filtered within 24 hours of receipt.
2. "<" indicates results less than analytical sensitivity. "---" indicates that sample was not analyzed.
3. Sample(s) for this project were analyzed at our: Monroeville, PA (AIHA #100364, NVLAP #101208-0, NY ELAP #10884) facility.
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5. Abbreviations: N/A-Not Applicable, Chry-Chrysotile Asbestos, Amph-Amphibole Asbestos, MFL-million fibers per liter.
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EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/29/2019

RJL: LLH901997-4	3158173.HTW1	Microscope tem2000fx1	Grid Openings	33
#1 NPDES Outfall	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: 20.0 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44199	Operator: Ashleigh Sload		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	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							

10% Particulate

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

Initial Review: 4/29/2019 3:29:16 PM approve by Ashleigh Sload
Final Review: 5/1/19 12:57 PM approve by Monica Mcgrath

EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/29/2019

RJL: LLH901997-4	3158174.HTW1	Microscope tem2000fx2	Grid Openings	65
#2 Sed. Trap 2	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: 2.0 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44199	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	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							
41				NSD							
42				NSD							
43				NSD							
44				NSD							

EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/29/2019

RJL: LLH901997-4	3158174.HTW1	Microscope tem2000fx2	Grid Openings	65
#2 Sed. Trap 2	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: 2.0 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44199	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	C/A
45				NSD							
46				NSD							
47				NSD							
48				NSD							
49				NSD							
50				NSD							
51				NSD							
52				NSD							
53				NSD							
54				NSD							
55				NSD							
56				NSD							
57				NSD							
58				NSD							
59				NSD							
60				NSD							
61				NSD							
62				NSD							
63				NSD							
64				NSD							
65				NSD							

12% Particulate

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

Initial Review: 4/29/2019 3:10:21 PM approve by Jon Swope
Final Review: 4/30/19 3:49 PM approve by Monica Mcgrath

EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/29/2019

RJL: LLH901997-4	3158175.HTW1	Microscope tem2000fx1	Grid Openings	13
#3 Sed. Basin 2	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: 10.0 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44199	Operator: Ashleigh Sload		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	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							

20% Particulate

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

Initial Review: 4/29/2019 4:04:12 PM approve by Ashleigh Sload
Final Review: 4/30/19 3:50 PM approve by Monica Mcgrath

EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/29/2019

RJL: LLH901997-4	3158176.HTW2	Microscope tem2000fx1	Grid Openings	13
#4 Sed. Basin 1	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: 10. mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Ashleigh Sload		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	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							

10% Particulate

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

Initial Review: 4/30/2019 7:29:05 AM approve by Ashleigh Sload
Final Review: 4/30/19 3:50 PM approve by Monica Mcgrath

EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/30/2019

RJL: LLH901997-4	3158177.HTW1	Microscope tem2000fx1	Grid Openings	33
#5 Quarry Pit	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: 20.0 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Ashleigh Sload		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	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							

8% Particulate

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

Initial Review: 4/30/2019 8:15:53 AM approve by Ashleigh Sload
Final Review: 5/1/19 12:57 PM approve by Monica Mcgrath

EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/30/2019

RJL: LLH901997-4	3158178.HTW3	Microscope tem2000fx2	Grid Openings	260
#6 Sed. Trap 1	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: .5 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	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							
41				NSD							
42				NSD							
43				NSD							
44				NSD							

RJ Lee Group, Inc.

TEM Count Sheet

RJL: LLH901997-4	3158178.HTW3	Microscope tem2000fx2	Grid Openings	260
#6 Sed. Trap 1	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: .5 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	C/A
45				NSD							
46				NSD							
47				NSD							
48				NSD							
49				NSD							
50				NSD							
51				NSD							
52				NSD							
53				NSD							
54				NSD							
55				NSD							
56				NSD							
57				NSD							
58				NSD							
59				NSD							
60				NSD							
61				NSD							
62				NSD							
63				NSD							
64				NSD							
65				NSD							
66				NSD							
67				NSD							
68				NSD							
69				NSD							
70				NSD							
71				NSD							
72				NSD							
73				NSD							
74				NSD							
75				NSD							
76				NSD							
77				NSD							
78				NSD							
79				NSD							
80				NSD							
81				NSD							
82				NSD							
83				NSD							
84				NSD							
85				NSD							
86				NSD							
87				NSD							
88				NSD							

RJ Lee Group, Inc.

TEM Count Sheet

RJL: LLH901997-4	3158178.HTW3	Microscope tem2000fx2	Grid Openings	260
#6 Sed. Trap 1	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: .5 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	C/A
89				NSD							
90				NSD							
91				NSD							
92				NSD							
93				NSD							
94				NSD							
95				NSD							
96				NSD							
97				NSD							
98				NSD							
99				NSD							
100				NSD							
101				NSD							
102				NSD							
103				NSD							
104				NSD							
105				NSD							
106				NSD							
107				NSD							
108				NSD							
109				NSD							
110				NSD							
111				NSD							
112				NSD							
113				NSD							
114				NSD							
115				NSD							
116				NSD							
117				NSD							
118				NSD							
119				NSD							
120				NSD							
121				NSD							
122				NSD							
123				NSD							
124				NSD							
125				NSD							
126				NSD							
127				NSD							
128				NSD							
129				NSD							
130				NSD							
131				NSD							
132				NSD							

RJ Lee Group, Inc.

TEM Count Sheet

RJL: LLH901997-4	3158178.HTW3	Microscope tem2000fx2	Grid Openings	260
#6 Sed. Trap 1	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: .5 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	C/A
133				NSD							
134				NSD							
135				NSD							
136				NSD							
137				NSD							
138				NSD							
139				NSD							
140				NSD							
141				NSD							
142				NSD							
143				NSD							
144				NSD							
145				NSD							
146				NSD							
147				NSD							
148				NSD							
149				NSD							
150				NSD							
151				NSD							
152				NSD							
153				NSD							
154				NSD							
155				NSD							
156				NSD							
157				NSD							
158				NSD							
159				NSD							
160				NSD							
161				NSD							
162				NSD							
163				NSD							
164				NSD							
165				NSD							
166				NSD							
167				NSD							
168				NSD							
169				NSD							
170				NSD							
171				NSD							
172				NSD							
173				NSD							
174				NSD							
175				NSD							
176				NSD							

RJ Lee Group, Inc.

TEM Count Sheet

RJL: LLH901997-4	3158178.HTW3	Microscope tem2000fx2	Grid Openings	260
#6 Sed. Trap 1	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: .5 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	C/A
177				NSD							
178				NSD							
179				NSD							
180				NSD							
181				NSD							
182				NSD							
183				NSD							
184				NSD							
185				NSD							
186				NSD							
187				NSD							
188				NSD							
189				NSD							
190				NSD							
191				NSD							
192				NSD							
193				NSD							
194				NSD							
195				NSD							
196				NSD							
197				NSD							
198				NSD							
199				NSD							
200				NSD							
201				NSD							
202				NSD							
203				NSD							
204				NSD							
205				NSD							
206				NSD							
207				NSD							
208				NSD							
209				NSD							
210				NSD							
211				NSD							
212				NSD							
213				NSD							
214				NSD							
215				NSD							
216				NSD							
217				NSD							
218				NSD							
219				NSD							
220				NSD							

RJ Lee Group, Inc.

TEM Count Sheet

RJL: LLH901997-4	3158178.HTW3	Microscope tem2000fx2	Grid Openings	260
#6 Sed. Trap 1	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: .5 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	C/A
221				NSD							
222				NSD							
223				NSD							
224				NSD							
225				NSD							
226				NSD							
227				NSD							
228				NSD							
229				NSD							
230				NSD							
231				NSD							
232				NSD							
233				NSD							
234				NSD							
235				NSD							
236				NSD							
237				NSD							
238				NSD							
239				NSD							
240				NSD							
241				NSD							
242				NSD							
243				NSD							
244				NSD							
245				NSD							
246				NSD							
247				NSD							
248				NSD							
249				NSD							
250				NSD							
251				NSD							
252				NSD							
253				NSD							
254				NSD							
255				NSD							
256				NSD							
257				NSD							
258				NSD							
259				NSD							
260				NSD							

12% Particulate

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

Initial Review: 4/30/2019 1:28:01 PM approve by Jon Swope
Final Review: 4/30/19 3:50 PM approve by Monica Mcgrath

EPA Water

RJ Lee Group, Inc.

TEM Count Sheet

Date Analyzed: 4/29/2019

RJL: LLH901997-4	3158179.HTW1	Microscope tem2000fx2	Grid Openings	26
#7 Sed. Trap 3	K & L Gates	Magnification 21 KX	Asbestos	0.0
Vol: 5.0 mL	Grid: 0.0094 mm²	Acc. Voltage 120 KV		
Filter Size: 47 mm	HQ44200	Operator: Jon Swope		
		Cv = 0		

Field	Fiber	Length	Width	FiberType	Morph	EDX	File #	Photo	SAED	AmpID	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							

10% Particulate

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

Initial Review: 4/29/2019 2:17:20 PM approve by Jon Swope
Final Review: 4/30/19 3:50 PM approve by Monica Mcgrath