February 7, 2019

GEM Environmental
P.O. Box 9053
Missoula, MT 59807

CLIENT PROJECT: U of M - Day Care Center In Education Bldg, 19-024
LAB CODE: T190497

Dear Customer:

Enclosed are asbestos analysis results for TEM air samples received at our laboratory on February 7, 2019. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per NIOSH 7402 Method.

The current OSHA 8-hour time weighted average permissible exposure limit (PEL) for asbestos is 0.1 f/cc and the 30 minutes excursion limit is 1 f/cc. The detection limit for the NIOSH 7402 method is one confirmed asbestos fiber above 95% expected mean blank value.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,

Tianbao Bai, Ph.D., CIH
Laboratory Director
ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

GEM Environmental

CLIENT PROJECT:  U of M - Day Care Center In Education Bldg, 19-024

LAB CODE:        T190497

TEST METHOD:     Air NIOSH 7402

REPORT DATE:     02/07/19
## ASBESTOS AIR ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

### Client Information

**Client:** GEM Environmental  
P.O. Box 9053  
Missoula, MT 59807

**Lab Code:** T190497  
**Date Received:** 02-07-19  
**Date Analyzed:** 02-07-19  
**Date Reported:** 02-07-19

**Project:** U of M - Day Care Center In Education Bldg, 19-024

### TEM AIR NIOSH 7402

<table>
<thead>
<tr>
<th>Client ID</th>
<th>Volume (Liters)</th>
<th>PCM f/cc</th>
<th>Asbestos Type</th>
<th>Asbestos Fibers</th>
<th>Asbestos %</th>
<th>Asbestos f/cc</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCM-P-06</td>
<td>630.4</td>
<td>0.011</td>
<td>None Detected</td>
<td>0</td>
<td>0</td>
<td>&lt;0.0055</td>
</tr>
<tr>
<td>T93092</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCM-P-07</td>
<td>630.4</td>
<td>0.0093</td>
<td>None Detected</td>
<td>0</td>
<td>0</td>
<td>&lt;0.0093</td>
</tr>
<tr>
<td>T93093</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LEGEND: \( \text{f/cc} = \text{fibers/cubic centimeter} \)

METHOD: NIOSH 7402

Limit of Detection: 1 confirmed asbestos fiber above 95% of expected mean blank value

REGULATORY LIMIT: OSHA Excursion Limit (EL) is 1.0 fibers per cc based on a 30 minute sample; OSHA Permissible Exposure Limit (PEL) is 0.10 fibers per cc based on 8 hour TWA

ANALYTICAL EQUIPMENT: JEOL Electron Microscope (JEM-1200 EXII) 
NORAN EDS System 7 (NSS112E)

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. Estimated measurement of uncertainty is available on request. Samples were received in acceptable condition unless otherwise noted.

Information provided by customer includes customer sample ID, location, volume and area as well as

No Field Blanks were submitted for project T190497.

ANALYST: Kamila Reichert

APPROVED BY: Tianbao Bai, Ph.D., CIH
Laboratory Director
**CHAIN OF CUSTODY**

**COMPANY INFORMATION**

**ECEI CLIENT #:**
Company: GEM Environmental, Inc.
Address: P.O. Box 9053
Missoula, MT 59807
Email: chris.casas@gem-environmental.com
Tel: 406-370-4139

**PROJECT INFORMATION**

**Job Contact:** Christopher Casas
**Email / Tel:** chris.casas@gem-environmental.com
**Project Name:** Safe M - Day Care - Education Bldg.
**Project ID#:** 19-024
**PO #:**
**STATE SAMPLES COLLECTED IN:** MT

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### IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

<table>
<thead>
<tr>
<th>ASBESTOS</th>
<th>METHOD</th>
<th>TURNO Around TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLM BULK</td>
<td>EPA 600</td>
<td>4 HR</td>
</tr>
<tr>
<td>PLM POINT COUNT (400)</td>
<td>EPA 600</td>
<td></td>
</tr>
<tr>
<td>PLM POINT COUNT (1000)</td>
<td>EPA 600</td>
<td></td>
</tr>
<tr>
<td>PLM GRAV W/ POINT COUNT</td>
<td>EPA 600</td>
<td></td>
</tr>
<tr>
<td>PLM BULK CARB 435</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PCM AIR NIOSH 7400</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEM AIR EPA AHERA</td>
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<td></td>
</tr>
<tr>
<td>TEM AIR NIOSH 7402</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TEM AIR (PCME) ISO 10312</td>
<td></td>
<td></td>
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<tr>
<td>TEM AIR ASTM 6281-15</td>
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<tr>
<td>TEM BULK CHATFIELD</td>
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</tr>
<tr>
<td>TEM DUST WIPE ASTM D6480-06 (2010)</td>
<td></td>
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</tr>
<tr>
<td>TEM DUST MICROVAC ASTM D5755-09 (2014)</td>
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<tr>
<td>TEM SOIL ASTM D7521-16</td>
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<tr>
<td>TEM VERMICULITE CINCINNATI METHOD</td>
<td></td>
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<tr>
<td>TEM QUALITATIVE IN-HOUSE METHOD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER:</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Blanks should be taken from the same sample lot as field samples.*

**REMARKS / SPECIAL INSTRUCTIONS: w/ Positive Stop**

- [x] Accept Samples
- [ ] Reject Samples

<table>
<thead>
<tr>
<th>Relinquished By:</th>
<th>Date/Time</th>
<th>Received By:</th>
<th>Date/Time</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>02/10/19</td>
<td>KR</td>
<td>2/7</td>
</tr>
<tr>
<td><em>Handwritten</em></td>
<td></td>
<td></td>
<td>9:20</td>
</tr>
</tbody>
</table>

By submitting samples, you are agreeing to ECEI's Terms and Conditions.
Samples will be disposed of 30 days after analysis.
## COMPANY CONTACT INFORMATION

Company: GEM Environmental, Inc.  
Job Contact: Christopher Casas

Project Name:  
Project ID #:  
Tel: 406-370-4139

### SAMPLE ID# | DESCRIPTION / LOCATION | VOLUME / AREA | TEST |
--- | --- | --- | --- |
PCM-P-06 | Activity Based Sampling | 630.4 | PLM | TEM |
PCM-P-07 | ACTIVITY Based Sampling | 630.4 | PLM | TEM |