

**Lab/Cor Portland, Inc.**4321 SW Corbett Ave., Ste A
Portland, OR 97239**Analysis Report Cover
Final Report***Asbestos and Environmental Analysis*Phone: (503) 224-5055
<http://www.labcorpdx.net>

Job Number: 196409 **PDX**
Client: TRC Environmental Corp.
Address: 4105 SE International Way, #505
Milwaukie, OR 97222
Project Name: Highland Park M.S. - Dust Project
Project No.: 362317
PO Number:
Sub Project:
Reference No.:

Report Number: 196409R01
Report Date: 11/22/2019

Enclosed please find results for samples submitted to our laboratory. A list of samples and analyses follows:

Lab/Cor Sample #	Client Sample # and Description	Analysis	Analysis Notes	Date Received:
196409 - S1	HPMS-C16-PCM-1 - C-16	NIOSH 7400 - PCM		11/22/2019
196409 - S2	HPMS-GLR-PCM-1 - Girls Locker Room	NIOSH 7400 - PCM		11/22/2019
196409 - S3	HPMS-Cor1-PCM-1 - Corridor 1 South	NIOSH 7400 - PCM		11/22/2019
196409 - S4	HPMS-BLR-PCM-1 - Boys Locker Room	NIOSH 7400 - PCM		11/22/2019
196409 - S5	HPMS-B14-PCM-1 - Room B14	NIOSH 7400 - PCM		11/22/2019
196409 - S6	HPMS-B12-PCM-1 - Room B12	NIOSH 7400 - PCM		11/22/2019
196409 - S7	HPMS-Cor1-PCM-2 - Corridor 1 North	NIOSH 7400 - PCM		11/22/2019
196409 - S8	HPMS-MC-PCM-1 - Media Center East	NIOSH 7400 - PCM		11/22/2019
196409 - S9	HPMS-MC-PCM-2 - Media Center West	NIOSH 7400 - PCM		11/22/2019
196409 - S10	HPMS-GRR1-PCM-1 - Girls Restroom 1	NIOSH 7400 - PCM		11/22/2019
196409 - S11	HPMS-BRR1-PCM-1 - Boys Restroom 1	NIOSH 7400 - PCM		11/22/2019
196409 - S12	HPMS-A14-PCM-11 - A14 (Production)	NIOSH 7400 - PCM		11/22/2019
196409 - S13	HPMS-Music-PCM-1 - Music Room	NIOSH 7400 - PCM		11/22/2019
196409 - S14	HPMS-HEA-PCM-1 - Hall A East	NIOSH 7400 - PCM		11/22/2019
196409 - S15	HPMS-Caf-PCM-1 - Cafeteria West	NIOSH 7400 - PCM		11/22/2019
196409 - S16	HPMS-Caf-PCM-2 - Cafeteria East	NIOSH 7400 - PCM		11/22/2019
196409 - B1	Blank -	NIOSH 7400 - PCM		11/22/2019
196409 - B2	Blank -	NIOSH 7400 - PCM		11/22/2019



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NIOSH 7400 - Preparation and analysis of the above samples was conducted in accordance with the NIOSH 7400 method dated August 15th, 1994. Phase contrast microscopy (PCM) analysis was conducted on air samples collected on mixed cellulose ester (MCE) filters. Samples are placed on a glass slide and exposed to hot acetone vapor until the filter material is completely collapsed. Approximately 0.02ml of Triacetin is placed on the collapsed filter and sealed with a #1.5 thickness cover slip. PCM analysis is then performed using a calibrated Olympus BHTU BH-2 phase contrast microscope with a Walton Beckett Graticule.

Disclaimer The results reported relate only to the samples tested or analyzed; the laboratory is not responsible for data collected by personnel who are not affiliated with the laboratory. Results reported in both structures/cm3 and structures/mm2 are dependent on the sample volume and area. These parameters are measured and recorded by non-laboratory personnel and are not covered by the laboratory's accreditation. Interpretation of these results is the sole responsibility of the client.

If further clarification of these results is needed, please call us. Thank you for allowing the staff at Lab/Cor Portland, Inc. the opportunity to provide you with the analytical services.

Sincerely,



Isabel Burgos

Analyst

Asbestos and Environmental Analysis

NIOSH 7400 - PCM

Job Number: 196409 PDX
Client: TRC Environmental Corp.
Project Name: Highland Park M.S. - Dust Project

Report Number: 196409R01
Date Received: 11/22/2019

Analyst: IB 11/22/2019

Lab/Cor Sample No.	Client Sample No.	Description	Volume (L)	¹ Total Adj. Fibers	Total Fields	³ Density (Fibers/mm2)	Concentration (Fibers/cc)	95% Confidence Interval (LCL - UCL)	² LOD (Fibers/cc)
S1	HPMS-C16-PCM-1	C-16	1200	1	100	< 7.0	< 0.002	0 - 0.002	0.002
S2	HPMS-GLR-PCM-1	Girls Locker Room	1200	4	100	< 7.0	< 0.002	0 - 0.004	0.002
S3	HPMS-Cor1-PCM-1	Corridor 1 South	1200	1	100	< 7.0	< 0.002	0 - 0.002	0.002
S4	HPMS-BLR-PCM-1	Boys Locker Room	1200	3	100	< 7.0	< 0.002	0 - 0.004	0.002
S5	HPMS-B14-PCM-1	Room B14	1200	2	100	< 7.0	< 0.002	0 - 0.003	0.002
S6	HPMS-B12-PCM-1	Room B12	1200	5	100	< 7.0	< 0.002	0.001 - 0.005	0.002
S7	HPMS-Cor1-PCM-2	Corridor 1 North	1200	5.5	100	< 7.0	< 0.002	0.001 - 0.006	0.002
S8	HPMS-MC-PCM-1	Media Center East	1200	2	100	< 7.0	< 0.002	0 - 0.003	0.002
S9	HPMS-MC-PCM-2	Media Center West	1200	3	100	< 7.0	< 0.002	0 - 0.004	0.002
S10	HPMS-GRR1-PCM-1	Girls Restroom 1	1200	4.5	100	< 7.0	< 0.002	0 - 0.004	0.002
S11	HPMS-BRR1-PCM-1	Boys Restroom 1	1200	1	100	< 7.0	< 0.002	0 - 0.002	0.002
S12	HPMS-A14-PCM-11	A14 (Production)	1200	4.5	100	< 7.0	< 0.002	0 - 0.004	0.002
S13	HPMS-Music-PCM-1	Music Room	1200	2	100	< 7.0	< 0.002	0 - 0.003	0.002
S14	HPMS-HEA-PCM-1	Hall A East	1200	3	100	< 7.0	< 0.002	0 - 0.004	0.002
S15	HPMS-Caf-PCM-1	Cafeteria West	1200	6.5	100	8.621	0.003	0.001 - 0.006	0.002
S16	HPMS-Caf-PCM-2	Cafeteria East	1200	3	100	< 7.0	< 0.002	0 - 0.004	0.002
B1	Blank		0	0	100	< 7.0			
B2	Blank		0	0	100	< 7.0			

Concentration = (((Total Adj Fibers) * (Filter Area)) / (Number of Fields * Field Area * Volume * 1000))

¹ Net fiber counts after average blank count reduction.

² LOD is calculated based on 5.5 fib/ 100 fields as referenced in NIOSH 7402 Method.

³ Density is reported as <7.0 fib/mm2 when the Total Fiber Cnt. - Avg. Blank Fiber Cnt. is <5.5 fibers

Asbestos and Environmental Analysis

NIOSH 7400 - PCM

Job Number: 196409 PDX
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IntraLab RSD Values			
Analyst	Low Fibs = 5-20 Flds = 100	Med Fibs=>20-50 Flds = 100	High Fibs=>50 Flds = 100
SG	0.5	0.39	0.7
PK	0.55	0.49	0.74
IB	0.75	0.61	0.66
LAB	0.6	0.5	0.7

Graticule Area	
Graticule Area	Date Meas.
0.00754	11/4/2019

Reviewed by:

Isabel Burgos
Digital Signature for Lab Use Only
Isabel Burgos
Analyst

Concentration = (((Total Adj Fibers) * (Filter Area)) / (Number of Fields * Field Area * Volume * 1000))

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² LOD is calculated based on 5.5 fib/ 100 fields as referenced in NIOSH 7402 Method.

³ Density is reported as <7.0 fib/mm² when the Total Fiber Cnt. - Avg. Blank Fiber Cnt. is <5.5 fibers