

**ALLEGHENY COUNTY HEALTH DEPARTMENT
Air Quality Program**

September 11, 2009

**Montessori School House
Bridgeville, PA**

**Metals Results / TSP 24 hour samples
Samples collected outside of the school (Outdoor Samples)**

Date	Cr (ng/m3)	Mn (ng/m3)	Ni (ng/m3)	Pb (ng/m3)
2/12/2009	5.77	28.60	3.11	2.71
2/18/2009	17.74	34.83	14.89	9.32
2/24/2009	53.87	58.04	32.83	24.39
3/2/2009	8.53	34.73	5.40	8.89
3/8/2009	7.86	21.75	4.21	22.22
3/14/2009	34.31	57.39	43.08	22.31
3/20/2009	12.07	27.49	10.01	7.83
3/26/2009	1.87	6.44	1.29	3.71
Average	17.75	33.66	14.35	12.67
Max	53.87	58.04	43.08	24.39

I.R.I.S Rfc (Chronic Inhalation)		50		
3 month NAAQS				150
Occupational (8 hour LOAEL)		50,000		

Sampling was performed every six days. The sampler is a high volume TSP sampler as required by the EPA federal reference method for ambient lead sampling. High purity quartz filters are used at a flow rate of 50 cfm over a 24 hour period. Exposed filters are analyzed by atomic absorbance spectrometry by the Allegheny County Environmental Laboratory. All samples are corrected for metals concentrations in blank filters from each filter batch.

Montessori School House
Bridgeville, PA

Metals Samples Results
Indoor Air

Date	Location	Cr (ng/m3)	Mn (ng/m3)	Ni (ng/m3)	Pb (ng/m3)
2/7/2009	Upstairs classroom	59.38	20.26	5.07	5.26
2/8/2009	Upstairs classroom	0.00	0.00	19.69	0.00
2/9/2009	Upstairs classroom	67.19	30.99	20.16	0.00
Average		42.19	17.08	14.97	1.75
Maximum		59.38	30.99	20.16	5.26

I.R.I.S Rfc (Chronic Inhalation)		50.00		
3 month NAAQS				150
Occupational (8 hour LOAEL)		50,000		

Indoor metals samples were gathered using small personal pumps. Flows were maintained at 4 slpm for 8 hours during normal operating school days. Samples were gathered around 4 to 5 feet from the floor. Filters were 37mm membrane type and were installed in clean cassettes. Exposed filters are analyzed by atomic absorbance spectrometry by the Allegheny County Environmental Laboratory. All samples are corrected for metals concentrations in blank filters from each filter batch.

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Chromium VI
Ambient Air Monitoring Results (Outdoor Air)

DATE	Cr+6 ng/m ³
7/18/2009	0.025
7/24/2009	0.067
7/30/2009	0.124
8/5/2009	0.015
8/11/2009	0.008
8/17/2009	0.077
08/23/2009	0.000
08/29/2009	0.028
09/04/2009	0.835
09/10/2009	0.010

Avg	0.119 (ng/m3)
Max	0.835 (ng/m3)
Min	0.000 (ng/m3)

I.R.I.S Rfc (Chronic Inhalation)	100 (ng/m3)
I.R.I.S. Cancer Risk (Inhalation)	
1 in 10,000	8 (ng/m3)
1 in 100,000	0.8 (ng/m3)
1 in 1,000,000	0.08 (ng/m3)

Chromium VI was sampled in the ambient air using a modified PM2.5 federal reference method sampler operating at a flow rate of 15 lpm. Each sample was collected over a 24 hour period. Samples were collected according to the EPA's every six day particulate sampling schedule.

Eastern Research Group was contracted by the Department to supply sample media and analysis. This laboratory is currently the EPA contract laboratory for the National School Air Toxics Initiative. The analytical method follows the EPA-modified CARB 039.