

Quarterly Monitoring Results
Springfield Street Schools
Springfield Street
Providence, Rhode Island

First Quarter, 2000-2001 Academic School Year
September 1, 2000 to December 1, 2000
March 20, 2001

Prepared For:

Mr. Mal A. Salvadore
Sondler Salvadore and Associates
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March 22, 2001

Mr. Mal A. Salvatore
Sondler Salvatore and Associates
400 Reservoir Avenue
Providence, Rhode Island 02907

Re: First Quarter, 2000-2001 Academic School Year (Sept. 2000 – Dec. 2000)
Quarterly Monitoring Results
Springfield Street Schools
Providence, Rhode Island

Dear Mr. Salvatore:

ATC has completed the first round of quarterly monitoring for 2000-2001 academic year at the Springfield Street Schools located in Providence, Rhode Island. The monitoring was performed subject to the Long-Term Operation and Maintenance Plan and Site Contingency Plan (May 9, 1999). The Long-Term Operation and Maintenance Plan and Site Contingency Plan is part of the Remedial Action Work Plan dated April 2, 1999, revised May 3, 1999 and May 9, 1999, and approved by the Rhode Island Department on Environmental Management (RIDEM) on June 4, 1999.

The following monitoring processes were performed at the Springfield Street Schools: Soil Cover Monitoring, Sub Slab Ventilation System Monitoring, Soil Gas Monitoring, Groundwater Quality Monitoring, Indoor Air Quality Monitoring, and Methane Monitoring.

Soil Cover Monitoring

During construction an orange snow fence was lain as an indicator barrier. At least two feet of soil was spread over the orange snow fence to complete the cover. If the cover erodes or someone digs through the cover, the indicator barrier beneath the topsoil would become visible. Soil cover monitoring was performed to evaluate areas on-site for evidence of erosion or digging to the extent that the orange fence indicator barrier has been exposed. ATC did not observe the indicator fence exposed during the course of the third quarter of monitoring.

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Sub-Slab Ventilation System Monitoring

Monitoring of the Sub-Slab Ventilation System entailed checking all gauges, valves, and sensors; testing and evaluating the blowers; and checking and draining (if required) the moisture separators. One sample of influent and effluent gas was evaluated for the presence of methane, carbon monoxide, carbon dioxide, hydrogen sulfide, and volatile organic compounds. These constituents were not identified during the monitoring. Refer to **Table 1** for the volatile organic compound results.

Soil Gas Monitoring

Twenty-nine soil gas monitoring wells were installed on-site. All wells were inspected for damage. Well WB5 had a broken seal and could not be monitored. All wells were sampled using an air pump and portable monitoring equipment. Approximately 300 liters of air (approximately 50 well volumes) were extracted from each well prior to sampling. The air was monitored for oxygen, hydrogen sulfide, carbon monoxide, carbon dioxide, methane, and volatile organic compounds. Refer to **Table 2** for the soil gas monitoring results.

Groundwater Quality Monitoring

Five groundwater monitoring were installed in December 2000 in the northern part of the site. Results are included in **Table 3**.

Indoor Air Quality Monitoring

ATC checked the methane monitors installed within the Elementary School. The monitors were operating at the time of our visits. The monitors within the building have not detected methane. ATC used direct read instruments to monitor the middle school for the presence of hydrogen sulfide, carbon monoxide and methane during the quarter. None of these constituents were detected at any concentration during the sampling.

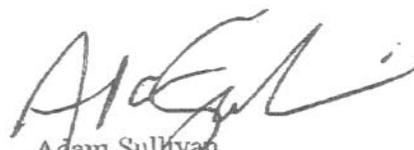
If you have any questions regarding this letter please contact the undersigned.

Sincerely,

ATC Associates Inc.



Cecily Davey
Environmental Scientist



Adam Sullivan
Operations Manager

Table 1

Vapor Phase Effluent Results
Springfield Street Elementary and Middle Schools
Sub-Slab Ventilation Systems
Volatile Organic Compounds
First Quarter 2001

Constituent	Elementary School	Middle School System No.1	Middle School System No.2
Hydrogen Sulfide	0.0%	0.0%	0.0%
Methane	0.0%	0.0%	0.0%
Carbon Monoxide	0.0%	0.0%	0.0%
Carbon Dioxide	0.0%	0.0%	0.0%
Volatile Organic Vapors	0.0%	0.0%	0.0%

- Analytical results are reported in percent according to instrument readings

Table 2
Soil Gas Survey Results
First Quarter 2001

Soil Gas Monitoring Well Designation	Methane	Oxygen	Carbon Dioxide	Carbon Monoxide PPM	Hydrogen Sulfide PPM	Organic Vapors
WB 1	0.0%	18.	2.0	0.0%	0.0%	0
WB-2	0.0%	18.0	2.2	0.0%	0.0%	0
WB-3	0.0%	18.0	1.3	0.0%	0.0%	0
WB-4	0.0%	19.0	1.4	0.0%	0.0%	0
WB-5	NS	NS	NS	NS	NS	NS
WB-6	0.0%	19.0	0.5	0.0%	0.0%	0
WB-7	0.0%	20	0.2	0.0%	0.0%	0
WB-8	0.0%	20	0.1	0.0%	0.0%	0
EPL-1	0.0%	20.0	0.0	0.0%	0.0%	0
EPL-2	0.0%	20.0	0.0	0.0%	0.0%	0
EPL-3	0.0%	15.0	2.6	0.0%	0.0%	0
EPL-4	0.0%	18.0	0.8	0.0%	0.0%	0
EPL-5	0.0%	20.0	0.0	0.0%	0.0%	0
ENE-1	0.0%	15.0	3.4	0.0%	0.0%	0
MG-5	0.0%	15.5	2.4	0.0%	0.0%	0
MG-4	0.0%	20.0	0.3	0.0%	0.0%	0
MG-3	0.0%	20.0	0.3	0.0%	0.0%	0
MG-2	0.0%	19.5	0.5	0.0%	0.0%	0
MG-1	0.0%	19.5	0.5	0.0%	0.0%	0
MPL5	0.0%	15.0	3.2	0.0%	0.0%	0
MPL3	0.0%	20.0	1.2	0.0%	0.0%	0
MPL2	0.0%	20.0	0.0	0.0%	0.0%	0
WB13	0.0%	19.4	0.1	0.0%	0.0%	0
WB14	0.0%	20.0	0.2	0.0%	0.0%	0
WB12	0.0%	20.0	0.1	0.0%	0.0%	0
MPL8	0.0%	15.0	2.0	0.0%	0.0%	0
MPL7	0.0%	15.0	3.0	0.0%	0.0%	0
MPL6	0.0%	16.0	1.0	0.0%	0.0%	0
MPL5	0.0%	15.0	3.2	0.0%	0.0%	0
Remedial Action Work Plan Action Levels	0.5%	NA	1,000	0.0009	0.0010	5.0

NS Denotes not sampled (broken seal)

Table 2
(Continued)
Confirmatory Laboratory Analysis
Soil Gas Survey

Quarter 1
September 1, 2001 – December 1, 2001

Constituent	WB-12	WB-13
Dichlorodifluoromethane	3.4	7.9
1,2-Dichlorotetrafluoroethane	ND	4.6
Trichlorofluoromethane	ND	0.99
Methylene Chloride	2.8	2.7
Benzene	ND	0.80
1,1,1 Trichloroethane	ND	ND
Trichloroethene	ND	2.5
Toluene	1.2	2.3
1,2,4-Trimethylbenzene	ND	0.5
Tetrachloroethene	ND	14
Xylene	ND	0.65
Methane	ND	ND

Table 3
Confirmatory Laboratory Analysis
Ground Water Results

First Quarter
 September 1, 2001 – December 1, 2001

Constituent	ATC-1	ATC-2	ATC-3	ATC-4	ATC-5
MTBE	28.6	ND	ND	ND	2.2
Tetrachloroethylene	ND	ND	ND	ND	ND
Benzene	18.9	ND	ND	2.5	ND
n-Butylbenzene	2.8	ND	ND	ND	ND
sec-Butylbenzene	4.1	ND	ND	ND	ND
Ethyl Benzene	12.6	ND	ND	ND	ND
Isopropylbenzene	1.8	ND	ND	ND	ND
n-Propylbenzene	5.0	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	57.3	ND
1,4-Dichlorobenzene	ND	ND	ND	9.2	ND
Toluene	8.2	ND	ND	ND	ND
1,2,4-Trimethylbenzene	8.2	ND	ND	1.7	ND
Xylene	37	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5.2	ND	ND	ND	ND