

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1114-15
FROM	Grant Harrigan	SHIFT:	0630 to 1845
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	18 th April, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0126

**SUBJECT: 17th April 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 17th of April, 2008. Colin MacIsaac and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Clear skies
- Temperature: approximately 16°C (data unavailable from Environment Canada)
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was Site activity. Air monitoring was performed during EarthTech's construction activities.*

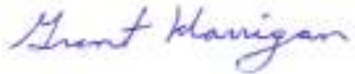
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were below the established Site Action Level for this parameter of 0.66 ppm. Each measurement is the average of a 15 minute sample. A minimum of 2 samples were taken downwind and 1 sample upwind every hour. All measurements were found to be below the detection limit of the instrument. Levels above detection limit will be noted in the table below.

Due to operational criteria, during periods of precipitation (snow and rain) and high humidity, TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Colin MacIsaac and reviewed by Grant Harrigan and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, B.Tech
Environmental Technologist
ALL-TECH Environmental Services Cape Breton Ltd.

Copied via e-mail:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Cooling Pond
17th April, 2008

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 35m Northeast of Acadian Lines terminal	0710	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 90m Northwest of STPA building	0710	155	12	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
3 90m Northwest of STPA building	0745	155	13	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
4 35m Northeast of Acadian Lines terminal	0800	155	13	Southwest	Upwind	Background	No observations seen to effect sampling integrity
5 90m Northwest of STPA building	0800	155	14	Southwest	Downwind	Vehicles moving	No observations seen to effect sampling integrity
6 90m Northwest of STPA building	0820	155	13	Southwest	Downwind	Vehicle moving	No observations seen to effect sampling integrity
7 35m Northeast of Acadian Lines terminal	0900	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
8 90m Northwest of STPA building	0900	155	15	Southwest	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
9 90m Northwest of STPA building	0930	155	15	Southwest	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
10 35m Northeast of Acadian Lines terminal	1000	155	11	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 90m Northwest of STPA building	1000	155	12	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
12 90m Northwest of STPA building	1025	155	12	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
13 35m Northeast of Acadian Lines terminal	1100	155	9	Southwest	Upwind	Background	No observations seen to effect sampling integrity
14 60m Northwest of STPA building	1100	155	17	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
15 60m Northwest of STPA building	1130	155	28	Southwest	Downwind	No activity observed	Dust from Inglis Street

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
16 30m North of Acadian Lines terminal	1200	155	12	Southwest	Upwind	Background	No observations seen to effect sampling integrity
17 60m Northwest of STPA building	1200	155	19	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
18 60m Northwest of STPA building	1245	155	22	Southwest	Downwind	No activity observed	No observations seen to effect sampling integrity
19 30m North of Acadian Lines terminal	1300	155	11	Southwest	Upwind	Background	No observations seen to effect sampling integrity
20 60m Northwest of STPA building	1300	155	24	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
21 60m Northwest of STPA building	1345	155	28	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
22 30m North of Acadian Lines terminal	1400	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
23 60m Northwest of STPA building	1400	155	43	Southwest	Downwind	Machines moving material	Dust from activity site

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
24 60m Northwest of STPA building	1430	155	20	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
25 30m North of Acadian Lines terminal	1500	155	14	Southwest	Upwind	Background	No observations seen to effect sampling integrity
26 60m Northwest of STPA building	1500	155	29	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
27 60m Northwest of STPA building	1545	155	20	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
28 30m North of Acadian Lines terminal	1600	155	12	Southwest	Upwind	Background	No observations seen to effect sampling integrity
29 90m Northwest of STPA building	1600	155	30	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
30 90m Northwest of STPA building	1630	155	28	Southwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
31 30m North of Acadian Lines terminal	1700	155	13	Southwest	Upwind	Background	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
32 90m Northwest of STPA building	1700	155	54	Southwest	Downwind	Machines moving material	Visible dust coming from activity site
33 90m Northwest of STPA building	1745	155	54	Southwest	Downwind	Machines moving material	Visible dust coming from activity site
34 30m North of Acadian Lines terminal	1800	155	67	Southwest	Upwind	Background	Downwind from a fire, visible smoke
35 90m Northwest of STPA building	1800	155	40	Southwest	Downwind	No activity observed	Downwind from a fire, visible smoke

Notes: Air sample duration for each monitoring event was 15 minutes.

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
90m Northwest of STPA building	0700 to 0759	13	990
90m Northwest of STPA building	0800 to 0859	27	990
90m Northwest of STPA building	0900 to 0959	42	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
90m Northwest of STPA building	1000 to 1059	54	990
60m Northwest of STPA building	1100 to 1159	77	990
60m Northwest of STPA building	1200 to 1259	98	990
60m Northwest of STPA building	1300 to 1359	124	990
60m Northwest of STPA building	1400 to 1459	156	990
60m Northwest of STPA building	1500 to 1559	181	990
90m Northwest of STPA building	1600 to 1659	210	990
90m Northwest of STPA building	1700 to 1759	264	990
90m Northwest of STPA building	1800 to 1859	304	990

VOC Monitoring

Monitoring Method	Yes	No
Sustained Odours Observed		•
P.I.D. Required	•	