

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1075-19
FROM	Grant Harrigan	SHIFT:	0630 to 1645
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	25 th February, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0076

**SUBJECT: 23rd February 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 23rd of February, 2008 Colin MacIsaac and Trevor Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Snowing, at times heavy, with sustained periods of blowing snow in the afternoon
- Temperature: -8°C
- Wind Direction: Northeast to North

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.

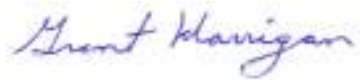
All downwind and upwind measurements of PM₁₀ were well below the established Site Action Level for this parameter of 155 µg/m³.

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), TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Trevor Rowe and reviewed by Grant Harrigan. 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
23rd February, 2008

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
1 50m Northwest of Northwest corner of STPA building	0710	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 20m South of fixed station on Intercolonial Street	0710	155	8	Northeast	Downwind	No activity	No observations seen to effect sampling integrity
3 20m South of fixed station on Intercolonial Street	0725	155	1	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
4 50m Northwest of Northwest corner of STPA building	0800	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 20m South of fixed station on Intercolonial Street	0800	155	1	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
6 20m South of fixed station on Intercolonial Street	0815	155	2	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
7 50m Northwest of Northwest corner of STPA building	0900	155	2	Northeast	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 20m South of fixed station on Intercolonial Street	0900	155	1	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
9 20m South of fixed station on Intercolonial Street	0915	155	1	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
10 25m West of Northwest corner of STPA building	1000	155	3	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 20m South of fixed station on Inter Colonial Street	1000	155	3	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
12 70m South of fixed station on Intercolonial Street	1018	155	2	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
13 25m West of Northwest corner of STPA building	1100	155	3	Northeast	Upwind	Background	No observations seen to effect sampling integrity
14 100m South of fixed station on Intercolonial Street	1100	155	2	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
15 100m South of fixed station on Intercolonial Street	1115	155	2	Northeast	Downwind	Excavators, payloaders, trucks operating	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
16 25m West of Northwest corner of STPA building	1200	155	2	Northeast	Upwind	Background	No observations seen to effect sampling integrity
17 50m East of Acadian Lines bus terminal	1200	155	2	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
18 50M East of Acadian Lines bus terminal	1215	155	2	Northeast	Downwind	No activity	No observations seen to effect sampling integrity
19 25m West of Northwest corner of STPA building	1300	155	3	Northeast	Upwind	Background	No observations seen to effect sampling integrity
20 50m East of Acadian Lines bus terminal	1300	155	3	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
21 50m East of Acadian Lines bus terminal	1315	155	3	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
22 25m West of Northwest corner of STPA building	1400	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
23 50m East of Acadian Lines bus terminal	1400	155	4	Northeast	Downwind	Excavators, payloaders, trucks operating	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
24 50m East of Acadian Lines bus terminal	1415	155	5	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
25 25m West of Northwest corner of STPA building	1500	155	5	Northeast	Upwind	Background	No observations seen to effect sampling integrity
26 50m East of Acadian Lines bus terminal	1500	155	7	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
27 50m East of Acadian Lines bus terminal	1515	155	5	Northeast	Downwind	Excavators, payloaders, trucks operating	No observations seen to effect sampling integrity
28 25m West of Northwest corner of STPA building	1600	155	5	North	Upwind	Background	No observations seen to effect sampling integrity
29 15m West of Terminal road and Inglis Street intersection	1600	155	6	North	Downwind	Excavators parking beside security trailer	No observations seen to effect sampling integrity

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

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
20m South of fixed station on Inter Colonial Street	0710 to 0735	4	990
20m South of fixed station on Inter Colonial Street	0800 to 0830	6	990
20m South of fixed station on Inter Colonial Street	0900 to 0915	7	990
70m South of fixed station on Inter Colonial Street	1000 to 1030	10	990
100m South of fixed station on Inter Colonial Street	1100 to 1130	12	990
50m East of Acadian Lines bus terminal	1200 to 1230	14	990
50m East of Acadian Lines bus terminal	1300 to 1330	17	990
50m East of Acadian Lines bus terminal	1400 to 1430	22	990
50m East of Acadian Lines bus terminal	1500 to 1530	28	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
70m Southwest of STPA office	1600 to 1615	34	990

VOC Monitoring

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