

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1114-21
FROM	Grant Harrigan	SHIFT:	0630 to 1300
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	26 th April, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-00132

**SUBJECT: 25th 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 25th of April, 2008. Colin MacIsaac and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast
- Temperature: approximately 2°C (data unavailable from Environment Canada)
- Wind Direction: East to Northeast

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-TECH remained on standby from 1015 to 1300 due to varying precipitation (snow and rain). At 1300 all sampling activities ended for the day due to consistent precipitation.*

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. 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
25th 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 30m North of STPA building	0700	155	8	East	Upwind	Background	No observations seen to effect sampling integrity
2 25m South of Intercolonial Street fixed station	0700	155	13	East	Downwind	No activity on-Site observed	No observations seen to effect sampling integrity
3 25m South of Intercolonial Street fixed station	0730	155	9	East	Downwind	No activity on-Site observed	No observations seen to effect sampling integrity
4 30m North of STPA building	0800	155	9	East	Upwind	Background	No observations seen to effect sampling integrity
5 25m South of Intercolonial Street fixed station	0800	155	15	East	Downwind	Vacuum truck operating	No observations seen to effect sampling integrity
6 25m South of Intercolonial Street fixed station	0825	155	7	East	Downwind	Vacuum truck operating	No observations seen to effect sampling integrity
7 30m North of STPA building	0900	155	10	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 50m South of Intercolonial Street fixed station	0900	155	4	Northeast	Downwind	No activity on-Site observed	No observations seen to effect sampling integrity
9 50m South of Intercolonial Street fixed station	0940	155	13	Northeast	Downwind	No activity on-Site observed	No observations seen to effect sampling integrity
10 30m North of STPA building	1000	155	9	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 50m South of Intercolonial Street fixed station	1000	155	7	Northeast	Downwind	No activity on-Site observed	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 ($\mu\text{g}/\text{m}^3$)
25m South of Intercolonial Street fixed station	0700 to 0759	11	990
25m South of Intercolonial Street fixed station	0800 to 0859	22	990
50m South of Intercolonial Street fixed station	0900 to 0959	31	990
50m South of Intercolonial Street fixed station	1000 to 1059	38	990

VOC Monitoring

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