

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1153-03
FROM	Peter Ibrahim	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	5 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0142

**SUBJECT: 4th June 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 4th of June, 2008. Colin MacIsaac and Donald MacIsaac 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 15°C
- Wind Direction: West to Northwest to South

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 Peter Ibrahim. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Peter Ibrahim
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
4th June, 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 20m West of STPA building	0700	155	15	West	Downwind	No activity observed	No observations seen to effect sampling integrity
2 15m North of Intercolonial fixed station	0705	155	13	West	Upwind	Background	No observations seen to effect sampling integrity
3 20m West of STPA building	0730	155	17	West	Downwind	No activity observed	No observations seen to effect sampling integrity
4 15m North of Intercolonial fixed station	0800	155	16	West	Upwind	Background	No observations seen to effect sampling integrity
5 20m West of STPA building	0800	155	18	West	Downwind	No activity observed	No observations seen to effect sampling integrity
6 20m West of STPA building	0845	155	19	West	Downwind	No activity observed	No observations seen to effect sampling integrity
7 15m North of Intercolonial fixed station	0900	155	16	West	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 West of STPA building	0900	155	17	West	Downwind	Trucks dumping material	No observations seen to effect sampling integrity
9 20m West of STPA building	0920	155	17	West	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
10 15m North of Intercolonial fixed station	1000	155	13	West	Upwind	Background	No observations seen to effect sampling integrity
11 20m West of STPA building	1000	155	15	West	Downwind	Trucks dumping material	No observations seen to effect sampling integrity
12 20m West of STPA building	1030	155	16	West	Downwind	No activity observed	No observations seen to effect sampling integrity
13 20m Southeast of Ferry Street, Walker Street intersection	1100	155	28	Northwest	Upwind	Background	No observations seen to effect sampling integrity
14 10m South of Cape Breton Street, Inglis Street intersection	1100	155	21	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
15 10m South of Cape Breton Street, Inglis Street intersection	1115	155	21	Northwest	Downwind	Bulldozer moving material	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 20m Southeast of Ferry Street, Walker Street intersection	1200	155	10	Northwest	Upwind	Background	No observations seen to effect sampling integrity
17 10m South of Cape Breton Street, Inglis Street intersection	1200	155	21	Northwest	Downwind	No activity observed	No observations seen to effect sampling integrity
18 20m West of STPA building	1230	155	20	West	Downwind	No activity observed	No observations seen to effect sampling integrity
19 60m North of Intercolonial fixed station	1300	155	21	West	Upwind	Background	No observations seen to effect sampling integrity
20 20m West of STPA building	1300	155	15	South	Downwind	Trucks dumping material	No observations seen to effect sampling integrity
21 30m North of Cooling Pond security gate	1335	155	31	South	Downwind	Trucks dumping material	No observations seen to effect sampling integrity
22 35m Northeast of Acadian Lines terminal	1400	155	24	South	Upwind	Background	No observations seen to effect sampling integrity
23 30m North of Cooling Pond security gate	1400	155	40	South	Downwind	No activity	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 30m North of Cooling Pond security gate	1445	155	18	South	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
25 35m Northeast of Acadian Lines terminal	1500	155	15	South	Upwind	Background	No observations seen to effect sampling integrity
26 30m North of Cooling Pond security gate	1500	155	17	South	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
27 30m North of Cooling Pond security gate	1525	155	17	South	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
28 35m Northeast of Acadian Lines terminal	1600	155	14	South	Upwind	Background	No observations seen to effect sampling integrity
29 30m North of Cooling Pond security gate	1600	155	17	South	Downwind	Excavator moving material	No observations seen to effect sampling integrity
30 30m North of Cooling Pond security gate	1625	155	33	South	Downwind	No activity 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 ($\mu\text{g}/\text{m}^3$)
20m West of STPA building	0700 to 0759	16	990
20m West of STPA building	0800 to 0859	35	990
20m West of STPA building	0900 to 0959	52	990
20m West of STPA building	1000 to 1059	68	990
10m South of Cape Breton Street, Inglis Street intersection	1100 to 1159	89	990
10m South of Cape Breton Street, Inglis Street intersection	1200 to 1259	105	990
20m West of STPA building	1300 to 1359	128	990
30m North of Cooling Pond Security Gate	1400 to 1459	157	990
30m North of Cooling Pond Security Gate	1500 to 1559	174	990
30m North of Cooling Pond Security Gate	1600 to 1659	199	990

VOC Monitoring

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