

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1153-05
FROM	Grant Harrigan	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	9 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0144

**SUBJECT: 6th 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 6th 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:

- Clear Skies
- Temperature: approximately 18°C
- Wind Direction: Northeast / 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,

ORIGINAL SIGNED

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
6th June, 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 50m North of STPA building	0700	155	5	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 25m Northeast of Acadian Lines terminal	0700	155	0	Northeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 25m Northeast of Acadian Lines terminal	0730	155	0	Northeast	Downwind	No activity observed on-site	Zeroed Dust Trak using zero filter
4 50m North of STPA building	0800	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 25m Northeast of Acadian Lines terminal	0800	155	-5	Northeast	Downwind	Bulldozer moving material	Zeroed Dust Trak using zero filter
6 25m Northeast of Acadian Lines terminal	0830	155	0	Northeast	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
7 50m North of STPA building	0900	155	6	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 25m Northeast of Acadian Lines terminal	0900	155	0	Northeast	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
9 25m Northeast of Acadian Lines terminal	0925	155	3	Northeast	Downwind	Bulldozer moving material	Switched to a new Dust Trak
10 50m North of STPA building	1000	155	5	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 25m Northeast of Acadian Lines terminal	1000	155	5	Northeast	Downwind	Excavator moving material	No observations seen to effect sampling integrity
12 25m Northeast of Acadian Lines terminal	1045	155	4	Northeast	Downwind	Truck spraying hydro-seed	No observations seen to effect sampling integrity
13 15m Southeast of Cape Breton Street, Inglis Street intersection	1100	155	6	East	Upwind	Background	No observations seen to effect sampling integrity
14 40m North of Intercolonial Street fixed station	1105	155	4	East	Downwind	Truck spraying hydro-seed	No observations seen to effect sampling integrity
15 40m North of Intercolonial Street fixed station	1125	155	4	East	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 70m North of STPA building	1200	155	9	Northeast	Upwind	Background	No observations seen to effect sampling integrity
17 25m Northeast of Acadian Lines terminal	1200	155	7	Northeast	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
18 25m Northeast of Acadian Lines terminal	1215	155	5	Northeast	Downwind	Trucks dumping material	No observations seen to effect sampling integrity
19 70m North of STPA building	1300	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
20 25m Northeast of Acadian Lines terminal	1300	155	5	Northeast	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
21 25m Northeast of Acadian Lines terminal	1330	155	3	Northeast	Downwind	Truck spraying hydro-seed	No observations seen to effect sampling integrity
22 70m North of STPA building	1400	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
23 25m Northeast of Acadian Lines terminal	1400	155	4	Northeast	Downwind	Truck spraying hydro-seed	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 25m Northeast of Acadian Lines terminal	1445	155	3	Northeast	Downwind	Truck dumping material	No observations seen to effect sampling integrity
25 70m North of STPA building	1500	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
26 25m Northeast of Acadian Lines terminal	1500	155	4	Northeast	Downwind	Truck dumping material	No observations seen to effect sampling integrity
27 25m Northeast of Acadian Lines terminal	1530	155	10	Northeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
28 70m North of STPA building	1600	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
29 25m Northeast of Acadian Lines terminal	1600	155	8	Northeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
30 25m Northeast of Acadian Lines terminal	1615	155	6	Northeast	Downwind	No activity observed on-site	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 Northeast of Acadian Lines terminal	0700 to 0759	0	990
25m Northeast of Acadian Lines terminal	0800 to 0859	0	990
25m Northeast of Acadian Lines terminal	0900 to 0959	2	990
25m Northeast of Acadian Lines terminal	1000 to 1059	7	990
40m North of Intercolonial Street fixed station	1100 to 1159	11	990
25m Northeast of Acadian Lines terminal	1200 to 1259	17	990
25m Northeast of Acadian Lines terminal	1300 to 1359	21	990
25m Northeast of Acadian Lines terminal	1400 to 1459	25	990
25m Northeast of Acadian Lines terminal	1500 to 1559	32	990
25m Northeast of Acadian Lines terminal	1600 to 1659	39	990

VOC Monitoring

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