

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1128-02
FROM	Grant Harrigan	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	6 th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0134

**SUBJECT: 5th May 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Test
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 5th of May, 2008. Tyler Rowe 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:

- Mainly sunny
- Temperature: 17°C
- Wind Direction: Southwest to West

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 Tyler Rowe and reviewed by Colin MacIsaac and Peter Ibrahim. 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 – South Pond Pilot Test
5th May, 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 40m South of Intercolonial Street fixed station	0710	155	8	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 5m Southeast of corner of Inglis Street and Spar Road	0710	155	13	Southwest	Downwind	No activity	No observations seen to effect sampling integrity
3 40m South of Intercolonial Street fixed station	0800	155	11	Southwest	Upwind	Background	No observations seen to effect sampling integrity
4 5m Southeast of corner of Inglis Street and Spar Road	0800	155	28	Southwest	Downwind	Truck dumping	No observations seen to effect sampling integrity
5 5m Southeast of corner of Inglis Street and Spar Road	0830	155	30	Southwest	Downwind	Truck dumping	No observations seen to effect sampling integrity
6 40m South of Intercolonial Street fixed station	0900	155	10	Southwest	Upwind	Background	No observations seen to effect sampling integrity
7 5m Southeast of corner of Inglis Street and Spar Road	0900	155	27	Southwest	Downwind	Truck dumping	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 5m Southeast of corner of Inglis Street and Spar Road	0930	155	24	Southwest	Downwind	Truck dumping	No observations seen to effect sampling integrity
9 40m South of Intercolonial Street fixed station	1000	155	11	Southwest	Upwind	Background	No observations seen to effect sampling integrity
10 5m Southeast of corner of Inglis Street and Spar Road	1000	155	45	Southwest	Downwind	No activity	No observations seen to effect sampling integrity
11 5m Southeast of corner of Inglis Street and Spar Road	1030	155	37	Southwest	Downwind	Truck dumping	No observations seen to effect sampling integrity
12 5m North of Intercolonial Street fixed station	1100	155	14	Southwest	Upwind	Background	No observations seen to effect sampling integrity
13 10m Southeast of corner of Inglis Street and Spar Road	1100	155	38	Southwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
14 10m Southeast of corner of Inglis Street and Spar Road	1120	155	35	Southwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
15 40m North of Intercolonial Street fixed station	1200	155	12	West	Upwind	Background	No observations seen to effect sampling integrity

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
16 30m Southeast of corner of Inglis Street and Spar Road	1200	155	57	West	Downwind	No activity	No observations seen to effect sampling integrity
17 30m Southeast of corner of Inglis Street and Spar Road	1240	155	19	West	Downwind	No activity	No observations seen to effect sampling integrity
18 40m North of Intercolonial Street fixed station	1300	155	15	West	Upwind	Background	No observations seen to effect sampling integrity
19 30m Southeast of corner of Inglis Street and Spar Road	1300	155	19	West	Downwind	No activity	No observations seen to effect sampling integrity
20 30m Southeast of corner of Inglis Street and Spar Road	1330	155	34	West	Downwind	No activity	No observations seen to effect sampling integrity
21 40m North of Intercolonial Street fixed station	1400	155	17	West	Upwind	Background	No observations seen to effect sampling integrity
22 30m Southeast of corner of Inglis Street and Spar Road	1400	155	37	West	Downwind	No activity	No observations seen to effect sampling integrity
23 30m Southeast of corner of Inglis Street and Spar Road	1420	155	30	West	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 40m North of Intercolonial Street fixed station	1500	155	18	West	Upwind	Background	No observations seen to effect sampling integrity
25 30m Southeast of corner of Inglis Street and Spar Road	1500	155	35	West	Downwind	No activity	No observations seen to effect sampling integrity
26 30m Southeast of corner of Inglis Street and Spar Road	1520	155	54	West	Downwind	No activity	No observations seen to effect sampling integrity
27 40m North of Intercolonial Street fixed station	1600	155	16	West	Upwind	Background	No observations seen to effect sampling integrity
28 30m Southeast of corner of Inglis Street and Spar Road	1600	155	21	West	Downwind	No activity	No observations seen to effect sampling integrity
29 30m Southeast of corner of Inglis Street and Spar Road	1620	155	13	West	Downwind	No activity	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 ($\mu\text{g}/\text{m}^3$)
5m Southeast of corner of Inglis Street and Spar Road	0700 to 0759	13	990
5m Southeast of corner of Inglis Street and Spar Road	0800 to 0859	42	990
5m Southeast of corner of Inglis Street and Spar Road	0900 to 0959	68	990
5m Southeast of corner of Inglis Street and Spar Road	1000 to 1059	109	990
10m Southeast of corner of Inglis Street and Spar Road	1100 to 1159	146	990
30m Southeast of corner of Inglis Street and Spar Road	1200 to 1259	184	990
30m Southeast of corner of Inglis Street and Spar Road	1300 to 1359	211	990
30m Southeast of corner of Inglis Street and Spar Road	1400 to 1459	245	990
30m Southeast of corner of Inglis Street and Spar Road	1500 to 1559	290	990
30m Southeast of corner of Inglis Street and Spar Road	1600 to 1659	307	990

VOC Monitoring

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