

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1128-07
FROM	Grant Harrigan	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	15 th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0007

**SUBJECT: 14th May 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – North Pond Pilot Test
FINAL REPORT**

Attached is a summary of real-time particulate (as PM₁₀) results for air monitoring performed on the 14th of May, 2008. Ryan Butts 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: 6°C
- 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.*

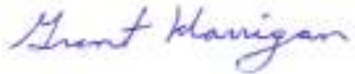
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were well 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 Tyler Rowe and reviewed by 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 – North Pond Pilot Test
14th May, 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 heavy machinery shop	0700	155	14	East	Upwind	Background	No observations seen to effect sampling integrity
2 30m North of heavy machinery shop	0800	155	14	East	Upwind	Background	No observations seen to effect sampling integrity
3 25m West of North Pond site	0800	155	5	East	Downwind	Equipment being moved onto site	Late start due to faulty Dust Track
4 25m West of North Pond site	0840	155	10	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
5 30m North of heavy machinery shop	0900	155	12	East	Upwind	Background	No observations seen to effect sampling integrity
6 25m West of North Pond site	0900	155	-10	East	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
7 25m West of North Pond site	0945	155	-15	East	Downwind	Personnel working by hand	Calibration required

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 West of Millcreek building	1000	155	12	East	Upwind	Background	No observations seen to effect sampling integrity
9 25m West of North Pond site	1000	155	-15	East	Downwind	No activity	Dust Track recalibrated.
10 40m Southwest of North Pond site	1045	155	14	Northeast	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
11 50m West of Millcreek building	1100	155	12	Northeast	Upwind	Background	No observations seen to effect sampling integrity
12 40m Southwest of North Pond site	1100	155	13	Northeast	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
13 40m Southwest of North Pond site	1143	155	13	Northeast	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
14 50m West of Millcreek building	1200	155	11	Northeast	Upwind	Background	No observations seen to effect sampling integrity
15 40m Southwest of North Pond site	1200	155	12	Northeast	Downwind	No activity	No observations seen to effect sampling integrity
16 40m Southwest of North Pond site	1242	155	14	Northeast	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
17 50m West of Millcreek building	1300	155	10	Northeast	Upwind	Background	No observations seen to effect sampling integrity
18 40m Southwest of North Pond site	1300	155	11	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
19 40m Southwest of North Pond site	1337	155	11	Northeast	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
20 50m West of Millcreek building	1400	155	9	East	Upwind	Background	No observations seen to effect sampling integrity
21 25m West of North Pond site	1400	155	9	East	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
22 25m West of North Pond site	1420	155	14	East	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
23 50m West of Millcreek building	1500	155	10	East	Upwind	Background	No observations seen to effect sampling integrity
24 25m West of North Pond site	1500	155	9	East	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
25 25m West of North Pond site	1535	155	10	East	Downwind	Personnel working by hand	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 West of Millcreek building	1600	155	10	East	Upwind	Background	No observations seen to effect sampling integrity
25 25m West of North Pond site	1600	155	10	East	Downwind	Personnel working by hand	No observations seen to effect sampling integrity
26 25m West of North Pond site	1645	155	9	East	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 ($\mu\text{g}/\text{m}^3$)
25m West of North Pond site	0800 to 0859	8	990
25m West of North Pond site	0900 to 0959	8	990
25m West of North Pond site / 40m Southwest of North Pond site	1000 to 1059	8	990
40m Southwest of North Pond site	1100 to 1159	21	990
40m Southwest of North Pond site	1200 to 1259	34	990
40m Southwest of North Pond site	1300 to 1359	45	990
40m Southwest of North Pond site	1400 to 1459	57	990
25m West of North Pond site	1500 to 1559	67	990
25m West of North Pond site	1600 to 1659	77	990

VOC Monitoring

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