

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-03
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	4 th September, 2008	STPA NO.	PS-0047

**SUBJECT: 4th September, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – North Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 4th of September, 2008. Reg Peters 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:

- Cloudy with sunny periods, brief showers
- Temperature: approximately 20°C
- Wind Direction: Southwest / West

Comments: *ALL-TECH was on-Site at 0730 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 Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Dianne Theriault, 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 Study
4th September, 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 40m Southwest of Walker Street and Ferry Street intersection	0800	155	19	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 20m North of North Pond main gate	0800	155	18	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 20m North of North Pond main gate	0835	155	16	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
4 40m Southwest of Walker Street and Ferry Street intersection	0900	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m North of North Pond main gate	0900	155	14	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
6 20m North of North Pond main gate	0930	155	12	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
7 40m Southwest of Walker Street and Ferry Street intersection	1000	155	10	Southwest	Upwind	Background	No observations seen to affect 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
8 20m North of North Pond main gate	1000	155	12	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
9 20m North of North Pond main gate	1015	155	13	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
10 40m Southwest of Walker Street and Ferry Street intersection	1100	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m North of North Pond main gate	1100	155	7	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
12 20m North of North Pond main gate	1135	155	15	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
13 40m Southwest of Walker Street and Ferry Street intersection	1200	155	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 20m North of North Pond main gate	1200	155	7	Southwest	Downwind	No activity observed on-site	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
15 20m North of North Pond main gate	1245	155	15	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
16 Walker Street, 20m North of Ferry Street	1300	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
17 5m North of North Pond main gate	1300	155	16	West	Downwind	Crane operating	No observations seen to effect sampling integrity
18 5m North of North Pond main gate	1340	155	11	West	Downwind	Crane operating	No observations seen to effect sampling integrity
19 Walker Street, 50m North of Ferry Street	1400	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
20 20m Southeast of Spar Road and Inglis Street intersection	1400	155	18	West	Downwind	Crane operating	No observations seen to effect sampling integrity
21 20m Southeast of Spar Road and Inglis Street intersection	1445	155	19	West	Downwind	Crane operating	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
22 Walker Street, 50m North of Ferry Street	1500	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
23 20m Southeast of Spar Road and Inglis Street intersection	1500	155	17	West	Downwind	Crane operating	No observations seen to effect sampling integrity
24 20m Southeast of Spar Road and Inglis Street intersection	1530	155	14	West	Downwind	Crane operating	No observations seen to effect sampling integrity
25 Walker Street, 50m North of Ferry Street	1600	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
26 20m Southeast of Spar Road and Inglis Street intersection	1600	155	13	West	Downwind	Crane operating	No observations seen to effect sampling integrity
27 20m Southeast of Spar Road and Inglis Street intersection	1645	155	14	West	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 ($\mu\text{g}/\text{m}^3$)
20m North of North Pond main gate	0800 to 0859	17	990
20m North of North Pond main gate	0900 to 0959	30	990
20m North of North Pond main gate	1000 to 1059	43	990
20m North of North Pond main gate	1100 to 1159	54	990
20m North of North Pond main gate	1200 to 1259	65	990
5m North of North Pond main gate	1300 to 1359	79	990
20m Southeast of Spar Road and Inglis Street intersection	1400 to 1459	98	990
20m Southeast of Spar Road and Inglis Street intersection	1500 to 1559	114	990
20m Southeast of Spar Road and Inglis Street intersection	1600 to 1659	128	990

VOC Monitoring

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