

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-15
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	16 th September, 2008	STPA NO.	PS-0059

**SUBJECT: 15th 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 15th 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:

- Mainly cloudy
- Temperature: approximately 20°C
- Wind Direction: Southwest

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
15th September, 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 Ferry Street, 20m West of Intercolonial Street	0800	155	21	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 20m North of North Pond main gate	0800	155	17	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 20m North of North Pond main gate	0835	155	20	Southwest	Downwind	Boom truck operating	No observations seen to effect sampling integrity
4 Ferry Street, 5m West of Intercolonial Street	0900	155	24	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m North of North Pond main gate	0900	155	28	Southwest	Downwind	Boom truck operating	No observations seen to effect sampling integrity
6 20m North of North Pond main gate	0915	155	41	Southwest	Downwind	Boom truck operating	Dust from site roads due to high winds
7 Ferry Street, 5m West of Intercolonial Street	1000	155	21	Southwest	Upwind	Background	No observations seen to affect 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 North of North Pond main gate	1000	155	32	Southwest	Downwind	Crane moving	No observations seen to effect sampling integrity
9 20m North of North Pond main gate	1020	155	31	Southwest	Downwind	Machinery moving	No observations seen to effect sampling integrity
10 Ferry Street, 5m West of Intercolonial Street	1100	155	21	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m North of North Pond main gate	1100	155	29	Southwest	Downwind	Machinery moving	No observations seen to effect sampling integrity
12 20m North of North Pond main gate	1115	155	38	Southwest	Downwind	Machinery moving	Dust from site roads due to high winds
13 Ferry Street, 5m West of Intercolonial Street	1200	155	26	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 20m North of North Pond main gate	1200	155	23	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 20m North of North Pond main gate	1235	155	26	Southwest	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
16 Ferry Street, 5m West of Intercolonial Street	1300	155	25	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 20m North of North Pond main gate	1300	155	32	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
18 20m North of North Pond main gate	1330	155	38	Southwest	Downwind	Crane operating	Dust from site roads due to high winds
19 Ferry Street, 5m West of Intercolonial Street	1400	155	29	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 20m North of North Pond main gate	1400	155	29	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
21 20m North of North Pond main gate	1415	155	24	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
22 Ferry Street, 5m West of Intercolonial Street	1500	155	30	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 20m North of North Pond main gate	1500	155	29	Southwest	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
24 20m North of North Pond main gate	1530	155	29	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
25 Ferry Street, 5m West of Intercolonial Street	1600	155	28	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 20m North of North Pond main gate	1600	155	24	Southwest	Downwind	Crane operating	No observations seen to effect sampling integrity
27 20m North of North Pond main gate	1645	155	23	Southwest	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	19	990
20m North of North Pond main gate	0900 to 0959	54	990
20m North of North Pond main gate	1000 to 1059	86	990
20m North of North Pond main gate	1100 to 1159	120	990
20m North of North Pond main gate	1200 to 1259	145	990
20m North of North Pond main gate	1300 to 1359	180	990
20m North of North Pond main gate	1400 to 1459	207	990
20m North of North Pond main gate	1500 to 1559	236	990
20m North of North Pond main gate	1600 to 1659	260	990

VOC Monitoring

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