

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1173-16
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	27 th August, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0041

**SUBJECT: 26th August, 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 26th of August, 2008. Reg Peters 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:

- Overcast
- Temperature: approximately 20°C
- Wind Direction: Southwest to 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 Donald MacIsaac 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
26th August, 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 20m North of North Pond Main Gate	0800	155	23	Southwest	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
2 20m South of Walker and Ferry Street Intersection	0810	155	28	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 20m North of North Pond Main Gate	0825	155	21	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
4 20m South of Walker and Ferry Street Intersection	0900	155	27	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m North of North Pond Main Gate	0900	155	26	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
6 20m North of North Pond Main Gate	0945	155	24	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
7 20m South of Walker and Ferry Street Intersection	1000	155	26	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	22	Southwest	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
9 20m North of North Pond Main Gate	1015	155	25	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
10 20m South of Walker and Ferry Street Intersection	1100	155	33	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m North of North Pond Main Gate	1100	155	27	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
12 20m North of North Pond Main Gate	1145	155	23	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
13 20m South of Walker and Ferry Street Intersection	1200	155	23	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 20m North of North Pond Main Gate	1200	155	19	Southwest	Downwind	No activity observed on-site	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
15 20m North of North Pond Main Gate	1230	155	17	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
16 20m South of Walker and Ferry Street Intersection	1300	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 20m North of North Pond Main Gate	1300	155	14	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
18 20m North of North Pond Main Gate	1345	155	15	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
19 60m East of North Pond Gate	1400	155	15	West	Downwind	Crane operating	No observations seen to affect sampling integrity
20 25m North of Walker and Ferry Street Intersection	1440	155	18	West	Upwind	Background	No observations seen to affect sampling integrity
21 60m East of North Pond Gate	1440	155	15	West	Downwind	Crane operating	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
22 25m North of Walker and Ferry Street Intersection	1500	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
23 60m East of North Pond Gate	1500	155	16	West	Downwind	Crane operating	No observations seen to affect sampling integrity
24 60m East of North Pond Gate	1540	155	16	West	Downwind	Crane operating	No observations seen to affect sampling integrity
25 25m North of Walker and Ferry Street Intersection	1600	155	18	West	Upwind	Background	No observations seen to affect sampling integrity
26 60m East of North Pond Gate	1600	155	17	West	Downwind	Crane operating	No observations seen to affect sampling integrity
27 60m East of North Pond Gate	1645	155	17	West	Downwind	No activity observed on-site	No observations seen to affect 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	22	990
20m North of North Pond Main Gate	0900 to 0959	47	990
20m North of North Pond Main Gate	1000 to 1059	71	990
20m North of North Pond Main Gate	1100 to 1159	96	990
20m North of North Pond Main Gate	1200 to 1259	114	990
20m North of North Pond Main Gate	1300 to 1359	129	990
60m East of North Pond Gate	1400 to 1459	144	990
60m East of North Pond Gate	1500 to 1559	160	990
60m East of North Pond Gate	1600 to 1659	177	990

VOC Monitoring

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