

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1173-04
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	8 th August, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0029

**SUBJECT: 8th 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 8th of August, 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, showers
- Temperature: approximately 20°C
- Wind Direction: Southeast

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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – North Pond Pilot Study
8th August, 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 50m West of South Pond main gate	0805	155	11	Southeast	Upwind	Background	No observations seen to effect sampling integrity
2 100m Northwest of Walker Street and Ferry Street intersection	0805	155	12	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 100m Northwest of Walker Street and Ferry Street intersection	0830	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
4 50m West of South Pond main gate	0900	155	7	Southeast	Upwind	Background	No observations seen to effect sampling integrity
5 100m Northwest of Walker Street and Ferry Street intersection	0900	155	6	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
6 130m Northwest of Walker Street and Ferry Street intersection	0930	155	4	Southeast	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
7 50m West of South Pond main gate	1000	155	3	Southeast	Upwind	Background	No observations seen to effect sampling integrity
8 130m Northwest of Walker Street and Ferry Street intersection	1000	155	2	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
9 130m Northwest of Walker Street and Ferry Street intersection	1020	155	3	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
10 50m West of South Pond main gate	1100	155	6	Southeast	Upwind	Background	No observations seen to effect sampling integrity
11 130m Northwest of Walker Street and Ferry Street intersection	1100	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
12 130m Northwest of Walker Street and Ferry Street intersection	1140	155	4	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
13 50m West of South Pond main gate	1200	155	6	Southeast	Upwind	Background	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
14 130m Northwest of Walker Street and Ferry Street intersection	1200	155	4	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
15 130m Northwest of Walker Street and Ferry Street intersection	1230	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
16 50m West of South Pond main gate	1300	155	6	Southeast	Upwind	Background	No observations seen to effect sampling integrity
17 130m Northwest of Walker Street and Ferry Street intersection	1300	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
18 130m Northwest of Walker Street and Ferry Street intersection	1345	155	6	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
19 50m West of South Pond main gate	1400	155	6	Southeast	Upwind	Background	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
20 130m Northwest of Walker Street and Ferry Street intersection	1400	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
21 130m Northwest of Walker Street and Ferry Street intersection	1445	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
22 50m West of South Pond main gate	1500	155	5	Southeast	Upwind	Background	No observations seen to effect sampling integrity
23 130m Northwest of Walker Street and Ferry Street intersection	1500	155	4	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
24 130m Northwest of Walker Street and Ferry Street intersection	1540	155	3	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
25 50m West of South Pond main gate	1600	155	5	Southeast	Upwind	Background	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
26 130m Northwest of Walker Street and Ferry Street intersection	1600	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
27 130m Northwest of Walker Street and Ferry Street intersection	1645	155	3	Southeast	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 ($\mu\text{g}/\text{m}^3$)
100m Northwest of Walker Street and Ferry Street intersection	0800 to 0859	9	990
100m/130m Northwest of Walker Street and Ferry Street intersection	0900 to 0959	14	990
130m Northwest of Walker Street and Ferry Street intersection	1000 to 1059	17	990
130m Northwest of Walker Street and Ferry Street intersection	1100 to 1159	22	990
130m Northwest of Walker Street and Ferry Street intersection	1200 to 1259	27	990
130m Northwest of Walker Street and Ferry Street intersection	1300 to 1359	33	990
130m Northwest of Walker Street and Ferry Street intersection	1400 to 1459	38	990
130m Northwest of Walker Street and Ferry Street intersection	1500 to 1559	42	990
130m Northwest of Walker Street and Ferry Street intersection	1600 to 1659	46	990

VOC Monitoring

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