

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-21
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	24 th September, 2008	STPA NO.	PS-0065

**SUBJECT: 23rd 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 23rd of September, 2008. Alison Giovannetti and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Sunny with cloudy periods and showers
- Temperature: approximately 14°C
- Wind Direction: West to Northwest to West

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. Monitoring was put on standby between 1230 and 1330 due to precipitation. 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 Alison Giovannetti 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
23rd 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 50m E of Midland along fence on Railway Rd.	0800	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
2 10m N of Inglis and Sparr Intersection	0800	155	7	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 10m N of Inglis and Sparr Intersection	0830	155	17	West	Downwind	Crane operating	No observations seen to affect sampling integrity
4 50m E of Midland along fence on Railway Rd.	0900	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
5 10m N of Inglis and Sparr Intersection	0900	155	35	West	Downwind	Crane operating	Dust from site roads
6 50m NE of Ferry St. Bridge	0930	155	7	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
7 50m E of Midland along fence on Railway Rd.	1000	155	6	West	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 10m N of Inglis and Sparr Intersection	1000	155	8	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 10m N of Inglis and Sparr Intersection	1030	155	14	West	Downwind	Crane operating	No observations seen to affect sampling integrity
10 50m E of Midland along fence on Railway Rd.	1100	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
11 10m N of Inglis and Sparr Intersection	1100	155	19	West	Downwind	Crane operating	No observations seen to affect sampling integrity
12 10m N of Inglis and Sparr Intersection	1120	155	20	West	Downwind	Crane operating	No observations seen to affect sampling integrity
13 50m E of Midland along fence on Railway Rd.	1200	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
14 10m N of Inglis and Sparr Intersection	1200	155	16	West	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 10m N of Inglis and Sparr Intersection	1330	155	6	West	Downwind	Background	No observations seen to affect sampling integrity
16 10m N of Inglis and Sparr Intersection	1330	155	7	West	Downwind	Crane operating	No observations seen to affect sampling integrity
17 50m E of Midland along fence on Railway Rd.	1400	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
18 10m N of Inglis and Sparr Intersection	1400	155	9	West	Downwind	Crane operating	No observations seen to affect sampling integrity
19 10m N of Inglis and Sparr Intersection	1425	155	15	West	Downwind	Crane Operating	No observations seen to affect sampling integrity
20 50m E of Midland along fence on Railway Rd.	1500	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
21 10m N of Inglis and Sparr Intersection	1500	155	7	West	Downwind	Crane Operating	No observations seen to affect sampling integrity
22 10m N of Inglis and Sparr Intersection	1520	155	24	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
23 50m E of Midland along fence on Railway Rd.	1600	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
24 10m N of Inglis and Sparr Intersection	1600	155	6	West	Downwind	Crane operating	No observations seen to affect sampling integrity
25 10m N of Inglis and Sparr Intersection	1645	155	19	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 Inglis Street and Spar Road intersection	0800 to 0859	12	990
20m North of Inglis Street and Spar Road intersection	0900 to 0959	33	990
100m North of Inglis Street and Spar Road intersection	1000 to 1059	45	990
20m North of Inglis Street and Spar Road intersection	1100 to 1159	65	990
20m North of Inglis Street and Spar Road intersection	1200 to 1259	81	990
40m East of Ferry Street bridge	1300 to 1359	88	990
40m East of Ferry Street bridge	1400 to 1459	100	990
40m South of railway and Ferry Street intersection	1500 to 1559	116	990
40m South of railway and Ferry Street intersection	1600 to 1659	129	990

VOC Monitoring

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