

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-16
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	17 th September, 2008	STPA NO.	PS-0060

**SUBJECT: 16th 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 16th of September, 2008. Colin MacIsaac 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:

- Sunny with cloudy periods
- Temperature: approximately 20°C
- Wind Direction: Northwest

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 Colin 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
16th 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 20m East of Ferry Street Bridge	0800	155	7	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
2 50m East of Midland building	0815	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
3 20m East of Ferry Street Bridge	0840	155	13	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
4 50m East of Midland building	0900	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m East of Ferry Street Bridge	0900	155	4	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
6 20m East of Ferry Street Bridge	0915	155	8	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
7 50m East of Midland building	1000	155	12	Northwest	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 East of Ferry Street Bridge	1000	155	5	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 20m East of Ferry Street Bridge	1020	155	7	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
10 50m East of Midland building	1100	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m East of Ferry Street Bridge	1100	155	13	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
12 20m East of Ferry Street Bridge	1145	155	12	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
13 50m East of Midland building	1200	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 20m East of Ferry Street Bridge	1200	155	10	Northwest	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 East of Ferry Street Bridge	1245	155	12	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
16 50m East of Midland building	1300	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 20m East of Ferry Street Bridge	1300	155	12	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
18 20m East of Ferry Street Bridge	1315	155	11	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
19 50m East of Midland building	1400	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 20m East of Ferry Street Bridge	1400	155	11	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
21 20m East of Ferry Street Bridge	1440	155	16	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
22 50m East of Midland building	1500	155	7	Northwest	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
23 20m East of Ferry Street Bridge	1500	155	11	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
24 20m East of Ferry Street Bridge	1520	155	11	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
25 50m East of Midland building	1600	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 20m East of Ferry Street Bridge	1600	155	11	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
27 20m East of Ferry Street Bridge	1645	155	10	Northwest	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 East of Ferry Street Bridge	0800 to 0859	10	990
20m East of Ferry Street Bridge	0900 to 0959	16	990
20m East of Ferry Street Bridge	1000 to 1059	24	990
20m East of Ferry Street Bridge	1100 to 1159	37	990
20m East of Ferry Street Bridge	1200 to 1259	48	990
20m East of Ferry Street Bridge	1300 to 1359	60	990
20m East of Ferry Street Bridge	1400 to 1459	74	990
20m East of Ferry Street Bridge	1500 to 1559	85	990
20m East of Ferry Street Bridge	1600 to 1659	96	990

VOC Monitoring

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