

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-01
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	3 rd September, 2008	STPA NO.	PS-0045

**SUBJECT: 2nd 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 2nd 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:

- Sunny with cloudy periods
- Temperature: approximately 20°C
- Wind Direction: East / Northeast

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.*

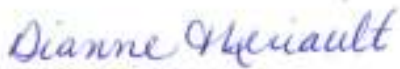
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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
2nd 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 Inglis Street, 25m North of Spar Road	0800	155	52	East	Upwind	Background	Instrument malfunction
2 70m North of Walker Street and Ferry Street Intersection	0800	155	14	East	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
3 70m North of Walker Street and Ferry Street Intersection	0825	155	12	East	Downwind	Crane operating	No observations seen to affect sampling integrity
4 Inglis Street, 25m North of Spar Road	0900	155	10	East	Upwind	Background	No observations seen to affect sampling integrity
5 70m North of Walker Street and Ferry Street Intersection	0900	155	11	East	Downwind	Crane operating	No observations seen to affect sampling integrity
6 70m North of Walker Street and Ferry Street Intersection	0940	155	12	East	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
7 Inglis Street, 25m North of Spar Road	1000	155	12	East	Upwind	Background	No observations seen to affect sampling integrity
8 70m North of Walker Street and Ferry Street Intersection	1000	155	14	East	Downwind	Crane operating	No observations seen to affect sampling integrity
9 70m North of Walker Street and Ferry Street Intersection	1020	155	18	East	Downwind	Crane operating	No observations seen to affect sampling integrity
10 Inglis Street, 25m North of Spar Road	1100	155	13	East	Upwind	Background	No observations seen to affect sampling integrity
11 70m North of Walker Street and Ferry Street Intersection	1100	155	15	East	Downwind	Crane operating	No observations seen to affect sampling integrity
12 70m North of Walker Street and Ferry Street Intersection	1135	155	12	East	Downwind	Crane operating	No observations seen to affect sampling integrity
13 Inglis Street, 50m North of Spar Road	1200	155	12	Northeast	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
14 50m North of Walker Street and Ferry Street Intersection	1200	155	14	Northeast	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
15 50m North of Walker Street and Ferry Street Intersection	1245	155	15	Northeast	Downwind	Crane operating	No observations seen to affect sampling integrity
16 Inglis Street, 50m North of Spar Road	1300	155	11	Northeast	Upwind	Background	No observations seen to affect sampling integrity
17 50m North of Walker Street and Ferry Street Intersection	1300	155	15	Northeast	Downwind	Crane operating	No observations seen to affect sampling integrity
18 50m North of Walker Street and Ferry Street Intersection	1345	155	27	Northeast	Downwind	Crane operating	No observations seen to affect sampling integrity
19 Inglis Street, 50m North of Spar Road	1400	155	25	Northeast	Upwind	Background	No observations seen to affect sampling integrity
20 50m North of Walker Street and Ferry Street Intersection	1400	155	20	Northeast	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
21 50m North of Walker Street and Ferry Street Intersection	1430	155	15	Northeast	Downwind	Crane operating	No observations seen to affect sampling integrity
22 Inglis Street, 50m North of Spar Road	1500	155	16	Northeast	Upwind	Background	No observations seen to affect sampling integrity
23 50m North of Walker Street and Ferry Street Intersection	1500	155	16	Northeast	Downwind	Crane operating	No observations seen to affect sampling integrity
24 50m North of Walker Street and Ferry Street Intersection	1520	155	29	Northeast	Downwind	Crane operating	No observations seen to affect sampling integrity
25 Inglis Street, 50m North of Spar Road	1600	155	18	Northeast	Upwind	Background	No observations seen to affect sampling integrity
26 50m North of Walker Street and Ferry Street Intersection	1600	155	18	Northeast	Downwind	Crane operating	No observations seen to affect sampling integrity
27 50m North of Walker Street and Ferry Street Intersection	1645	155	21	Northeast	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 ($\mu\text{g}/\text{m}^3$)
70m North of Walker Street and Ferry Street Intersection	0800 to 0859	13	990
70m North of Walker Street and Ferry Street Intersection	0900 to 0959	25	990
70m North of Walker Street and Ferry Street Intersection	1000 to 1059	41	990
70m North of Walker Street and Ferry Street Intersection	1100 to 1159	55	990
50m North of Walker Street and Ferry Street Intersection	1200 to 1259	70	990
50m North of Walker Street and Ferry Street Intersection	1300 to 1359	91	990
50m North of Walker Street and Ferry Street Intersection	1400 to 1459	109	990
50m North of Walker Street and Ferry Street Intersection	1500 to 1559	132	990
50m North of Walker Street and Ferry Street Intersection	1600 to 1659	152	990

VOC Monitoring

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