

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1166-03
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	30 th July, 2008	STPA NO.	PS-0024

**SUBJECT: 30th July, 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 30th of July, 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:

- Foggy and overcast giving way to mainly sunny periods, then thunder and lightning followed by clearing skies
- Temperature: approximately 22°C
- Wind Direction: South / West / North

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. Monitoring was temporarily suspended from 1415 to 1545 due to a rain storm.*

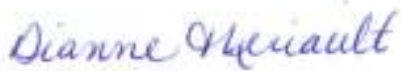
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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
30th July, 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 10m North of Intercolonial Street fixed station	0800	155	52	South	Upwind	Background	No observations seen to effect sampling integrity
2 100m Northwest of Inglis Street and Spar Road Intersection	0800	155	55	South	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 100m Northwest of Inglis Street and Spar Road Intersection	0830	155	49	South	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
4 10m North of Intercolonial Street fixed station	0900	155	53	South	Upwind	Background	No observations seen to effect sampling integrity
5 100m Northwest of Inglis Street and Spar Road Intersection	0900	155	49	South	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
6 30m Northwest of Inglis Street and Spar Road Intersection	0930	155	50	West	Downwind	Machine moving material	No observations seen to effect sampling integrity
7 Walker Street, 20m North of Ferry Street	1000	155	58	West	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
8 30m Northwest of Inglis Street and Spar Road Intersection	1000	155	49	West	Downwind	Machine moving material	No observations seen to effect sampling integrity
9 30m Northwest of Inglis Street and Spar Road Intersection	1045	155	50	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
10 Walker Street, 20m North of Ferry Street	1100	155	58	West	Upwind	Background	No observations seen to effect sampling integrity
11 30m Northwest of Inglis Street and Spar Road Intersection	1100	155	48	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
12 30m Northwest of Inglis Street and Spar Road Intersection	1130	155	43	West	Downwind	Crane operating	No observations seen to effect sampling integrity
13 Walker Street, 20m North of Ferry Street	1200	155	57	West	Upwind	Background	No observations seen to effect sampling integrity
14 30m Northwest of Inglis Street and Spar Road Intersection	1200	155	40	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
15 30m Northwest of Inglis Street and Spar Road Intersection	1245	155	38	West	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
16 Walker Street, 20m North of Ferry Street	1300	155	43	West	Upwind	Background	No observations seen to effect sampling integrity
17 30m Northwest of Inglis Street and Spar Road Intersection	1300	155	39	West	Downwind	Crane operating	No observations seen to effect sampling integrity
18 30m Northwest of Inglis Street and Spar Road Intersection	1330	155	39	West	Downwind	Crane operating	No observations seen to effect sampling integrity
19 Walker Street, 20m North of Ferry Street	1400	155	43	West	Upwind	Background	No observations seen to effect sampling integrity
20 30m Northwest of Inglis Street and Spar Road Intersection	1400	155	37	West	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
21 40m Southeast of Walker Street and Ferry Street intersection	1545	155	10	North	Downwind	Crane operating	No observations seen to effect sampling integrity
22 15m West of North Pond main gate	1600	155	19	West	Upwind	Background	No observations seen to effect sampling integrity
23 40m Southeast of Walker Street and Ferry Street intersection	1600	155	11	North	Downwind	Crane operating	No observations seen to effect sampling integrity

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
24 40m Southeast of Walker Street and Ferry Street intersection	1645	155	14	North	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 Inglis Street and Spar Road Intersection	0800 to 0859	52	990
100m / 30m Northwest of Inglis Street and Spar Road Intersection	0900 to 0959	102	990
30m Northwest of Inglis Street and Spar Road Intersection	1000 to 1059	151	990
30m Northwest of Inglis Street and Spar Road Intersection	1100 to 1159	197	990
30m Northwest of Inglis Street and Spar Road Intersection	1200 to 1259	236	990
30m Northwest of Inglis Street and Spar Road Intersection	1300 to 1359	275	990
30m Northwest of Inglis Street and Spar Road Intersection	1400 to 1459	312	990
40m Southeast of Walker Street and Ferry Street intersection	1500 to 1559	322	990
40m Southeast of Walker Street and Ferry Street intersection	1600 to 1659	335	990

VOC Monitoring

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