

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1173-05
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	12 th August, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0030

**SUBJECT: 11th 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 11th 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
- Temperature: approximately 22°C
- Wind Direction: Northeast / Southeast / East

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.*

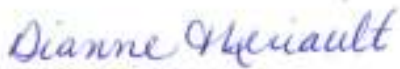
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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
11th August, 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 East of North Pond main gate	0800	155	7	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 30m Southeast of Walker Street and Ferry Street intersection	0800	155	8	Northeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 30m Southeast of Walker Street and Ferry Street intersection	0845	155	6	Northeast	Downwind	Crane operating	No observations seen to effect sampling integrity
4 10m East of North Pond main gate	0900	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 30m Southeast of Walker Street and Ferry Street intersection	0900	155	5	Northeast	Downwind	Crane operating	No observations seen to effect sampling integrity
6 30m Southeast of Walker Street and Ferry Street intersection	0945	155	13	Northeast	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 10m East of North Pond main gate	1000	155	7	Northeast	Upwind	Background	No observations seen to effect sampling integrity
8 30m Southeast of Walker Street and Ferry Street intersection	1000	155	8	Northeast	Downwind	Crane operating	No observations seen to effect sampling integrity
9 100m South of Railway Maintenance Building	1045	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
10 50m East of South Pond main gate	1100	155	6	Southeast	Upwind	Background	No observations seen to effect sampling integrity
11 100m South of Railway Maintenance Building	1100	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
12 100m South of Railway Maintenance Building	1140	155	5	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
13 50m East 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 100m South of Railway Maintenance Building	1200	155	6	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
15 100m South of Railway Maintenance Building	1215	155	5	Southeast	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
16 50m East of South Pond main gate	1300	155	9	Southeast	Upwind	Background	No observations seen to effect sampling integrity
17 100m South of Railway Maintenance Building	1300	155	6	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
18 100m South of Railway Maintenance Building	1340	155	7	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
19 50m East of South Pond main gate	1400	155	10	Southeast	Upwind	Background	No observations seen to effect sampling integrity
20 100m South of Railway Maintenance Building	1400	155	10	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
21 100m South of Railway Maintenance Building	1430	155	8	Southeast	Downwind	Crane operating	No observations seen to effect sampling integrity
22 5m East of North Pond fence, 30m North of Spar Rd.	1500	155	10	East	Upwind	Background	No observations seen to effect sampling integrity
23 60m North of Walker Street and Ferry Street intersection	1500	155	8	East	Downwind	Crane operating	No observations seen to effect sampling integrity
24 60m North of Walker Street and Ferry Street intersection	1515	155	8	East	Downwind	Crane operating	No observations seen to effect sampling integrity
25 5m East of North Pond fence, 30m North of Spar Rd.	1600	155	24	East	Upwind	Background	No observations seen to effect sampling integrity
26 60m North of Walker Street and Ferry Street intersection	1600	155	14	East	Downwind	Crane operating	No observations seen to effect sampling integrity
27 60m North of Walker Street and Ferry Street intersection	1645	155	25	East	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 ($\mu\text{g}/\text{m}^3$)
30m Southeast of Walker Street and Ferry Street intersection	0800 to 0859	7	990
30m Southeast of Walker Street and Ferry Street intersection	0900 to 0959	16	990
30m Southeast of Walker Street and Ferry Street intersection/100m South of Railway Maintenance Building	1000 to 1059	23	990
100m South of Railway Maintenance Building	1100 to 1159	28	990
100m South of Railway Maintenance Building	1200 to 1259	34	990
100m South of Railway Maintenance Building	1300 to 1359	41	990
100m South of Railway Maintenance Building	1400 to 1459	50	990
60m North of Walker Street and Ferry Street intersection	1500 to 1559	58	990
60m North of Walker Street and Ferry Street intersection	1600 to 1659	78	990

VOC Monitoring

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