

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1152-05
FROM	Peter Ibrahim	SHIFT:	0630 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	12 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0014

**SUBJECT: 11th June, 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 June, 2008. Colin MacIsaac and Peter Ibrahim of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast giving way to sunny periods
- Temperature: approximately 15°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0630 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 Peter Ibrahim and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Peter Ibrahim,
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 June, 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 35m Northeast of Acadian Lines terminal	0700	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 40m West of Inglis Street, next to North Pond gate	0700	155	14	Southwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 40m West of Inglis Street, next to North Pond gate	0745	155	12	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
4 35m Northeast of Acadian Lines terminal	0800	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
5 40m West of Inglis Street, next to North Pond gate	0800	155	9	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
6 40m West of Inglis Street, next to North Pond gate	0830	155	10	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
7 35m Northeast of Acadian Lines terminal	0900	155	3	Southwest	Upwind	Background	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
8 40m West of Inglis Street, next to North Pond gate	0900	155	8	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
9 40m West of Inglis Street, next to North Pond gate	0930	155	16	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
10 35m Northeast of Acadian Lines terminal	1000	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
11 40m West of Inglis Street, next to North Pond gate	1000	155	13	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
12 40m West of Inglis Street, next to North Pond gate	1015	155	14	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
13 35m Northeast of Acadian Lines terminal	1100	155	3	Southwest	Upwind	Background	No observations seen to effect sampling integrity
14 40m West of Inglis Street, next to North Pond gate	1100	155	15	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
15 40m West of Inglis Street, next to North Pond gate	1130	155	9	Southwest	Downwind	Trucks, excavators moving material	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 35m Northeast of Acadian Lines terminal	1200	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
17 40m West of Inglis Street, next to North Pond gate	1200	155	35	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
18 40m West of Inglis Street, next to North Pond gate	1240	155	25	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
19 35m Northeast of Acadian Lines terminal	1300	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
20 40m West of Inglis Street, next to North Pond gate	1300	155	56	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
21 40m West of Inglis Street, next to North Pond gate	1325	155	14	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
22 35m Northeast of Acadian Lines terminal	1400	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
23 40m West of Inglis Street, next to North Pond gate	1400	155	9	Southwest	Downwind	Trucks, excavators moving material	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
24 40m West of Inglis Street, next to North Pond gate	1430	155	13	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
25 35m Northeast of Acadian Lines terminal	1500	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
26 40m West of Inglis Street, next to North Pond gate	1500	155	33	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
27 40m West of Inglis Street, next to North Pond gate	1530	155	15	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
28 35m Northeast of Acadian Lines terminal	1600	155	4	Southwest	Upwind	Background	No observations seen to effect sampling integrity
29 40m West of Inglis Street, next to North Pond gate	1600	155	9	Southeast	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
30 40m West of Inglis Street, next to North Pond gate	1630	155	6	Southwest	Downwind	Trucks, excavators moving material	No observations seen to effect sampling integrity
31 35m Northeast of Acadian Lines terminal	1700	155	3	Southwest	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
32	1700	155	13	Southwest	Downwind	Trucks, excavators moving material	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 (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
40m West of Inglis Street, next to North Pond gate	0700 to 0759	13	990
40m West of Inglis Street, next to North Pond gate	0800 to 0859	23	990
40m West of Inglis Street, next to North Pond gate	0900 to 0959	35	990
40m West of Inglis Street, next to North Pond gate	1000 to 1059	49	990
40m West of Inglis Street, next to North Pond gate	1100 to 1159	61	990
40m West of Inglis Street, next to North Pond gate	1200 to 1259	91	990
40m West of Inglis Street, next to North Pond gate	1300 to 1359	126	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
40m West of Inglis Street, next to North Pond gate	1400 to 1459	137	990
40m West of Inglis Street, next to North Pond gate	1500 to 1559	161	990
40m West of Inglis Street, next to North Pond gate	1600 to 1659	169	990
40m West of Inglis Street, next to North Pond gate	1700 to 1759	182	990

VOC Monitoring

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