

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-05
FROM	Dianne Theriault	SHIFT:	0630 to 1800
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	5 th May, 2009	STPA NO.	TP6D-NP-0043

**SUBJECT: 4th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, North Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 4th of May, 2009. Shaun Dove and Dwayne Timmons of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly sunny
- Temperature: approximately 18°C
- Wind Direction: Southwest to West

Comments: *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity. Air monitoring was performed during AECOM'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 Dwayne Timmons 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 – Access Roads, North Pond
4th May, 2009

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 60m Southeast of Walker St. and Ferry St. intersection	0700	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 200m North of North Pond main gate	0700	155	8	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
3 200m North of North Pond main gate	0720	155	9	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 60m Southeast of Walker St. and Ferry St. intersection	0800	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 200m North of North Pond main gate	0800	155	10	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 200m North of North Pond main gate	0815	155	11	Southwest	Downwind	Machines moving material	No observations seen to affect 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
7 60m Southeast of Walker St. and Ferry St. intersection	0900	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 200m North of North Pond main gate	0900	155	11	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 200m North of North Pond main gate	0940	155	12	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 60m Southeast of Walker St. and Ferry St. intersection	1000	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 200m North of North Pond main gate	1000	155	14	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 200m North of North Pond main gate	1020	155	14	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 60m Southeast of Walker St. and Ferry St. intersection	1100	155	11	Southwest	Upwind	Background	No observations seen to affect 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
14 200m North of North Pond main gate	1100	155	19	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 200m North of North Pond main gate	1115	155	23	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 60m Southeast of Walker St. and Ferry St. intersection	1200	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 200m North of North Pond main gate	1200	155	15	Southwest	Downwind	Steamroller operating	No observations seen to affect sampling integrity
18 200m North of North Pond main gate	1240	155	41	Southwest	Downwind	Steamroller operating	No observations seen to affect sampling integrity
19 60m Southeast of Walker St. and Ferry St. intersection	1300	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 200m North of North Pond main gate	1300	155	20	Southwest	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
21 200m North of North Pond main gate	1335	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
22 90m East of the Midland depot	1400	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
23 50m North of North Pond main gate	1400	155	27	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 50m North of North Pond main gate	1445	155	39	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
25 90m East of the Midland depot	1500	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
26 50m North of North Pond main gate	1500	155	33	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
27 50m North of North Pond main gate	1545	155	15	West	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
28 90m East of the Midland depot	1600	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
29 50m North of North Pond main gate	1600	155	15	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
30 50m North of North Pond main gate	1635	155	15	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
31 90m East of the Midland depot	1700	155	16	West	Upwind	Background	No observations seen to affect sampling integrity
32 50m North of North Pond main gate	1700	155	14	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
33 50m North of North Pond main gate	1715	155	14	West	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 ($\mu\text{g}/\text{m}^3$)
200m North of North Pond main gate	0700 to 0759	9	990
200m North of North Pond main gate	0800 to 0859	20	990
200m North of North Pond main gate	0900 to 0959	31	990
200m North of North Pond main gate	1000 to 1059	45	990
200m North of North Pond main gate	1100 to 1159	66	990
200m North of North Pond main gate	1200 to 1259	95	990
200m North of North Pond main gate	1300 to 1359	112	990
200m North of North Pond main gate	1400 to 1459	145	990
200m North of North Pond main gate	1500 to 1559	169	990
200m North of North Pond main gate	1600 to 1659	184	990
200m North of North Pond main gate	1700 to 1759	198	990

VOC Monitoring

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