

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1292-07
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	13 th April, 2009	STPA NO.	TP6D-0017

**SUBJECT: 9th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 9th of April, 2009. Shaun Dove and Reg Peters, 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 10°C
- Wind Direction: Southwest

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.*

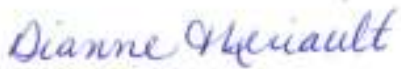
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Shaun Dove 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
9th April, 2009

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 200m West of Ferry Street Bridge	0700	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 120m Northwest of North Pond Main Gate	0700	155	14	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
3 120m Northwest of North Pond Main Gate	0730	155	15	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 200m West of Ferry Street Bridge	0800	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 120m Northwest of North Pond Main Gate	0800	155	16	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 120m Northwest of North Pond Main Gate	0845	155	13	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 200m West of Ferry Street Bridge	0900	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 120m Northwest of North Pond Main Gate	0900	155	13	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 120m Northwest of North Pond Main Gate	0940	155	11	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 200m West of Ferry Street Bridge	1000	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 120m Northwest of North Pond Main Gate	1000	155	10	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 120m Northwest of North Pond Main Gate	1015	155	11	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 200m West of Ferry Street Bridge	1100	155	15	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 120m Northwest of North Pond Main Gate	1100	155	12	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 120m Northwest of North Pond Main Gate	1140	155	13	Southwest	Downwind	Machines moving material.	No observations seen to affect sampling integrity
16 200m West of Ferry Street Bridge	1200	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 120m Northwest of North Pond Main Gate	1200	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 120m Northwest of North Pond Main Gate	1230	155	15	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 200m West of Ferry Street Bridge	1300	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 120m Northwest of North Pond Main Gate	1300	155	14	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
21 120m Northwest of North Pond Main Gate	1340	155	13	Southwest	Downwind	Machines Moving Material	No observations seen to affect sampling integrity
22 200m West of Ferry Street Bridge	1400	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 120m Northwest of North Pond Main Gate	1400	155	14	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
24 120m Northwest of North Pond Main Gate	1420	155	12	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
25 200m West of Ferry Street Bridge	1500	155	14	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 120m Northwest of North Pond Main Gate	1500	155	10	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
27 120m Northwest of North Pond Main Gate	1515	155	10	Southwest	Downwind	Machines moving material	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 200m West of Ferry Street Bridge	1600	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
29 120m Northwest of North Pond Main Gate	1600	155	12	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
30 120m Northwest of North Pond Main Gate	1630	155	13	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
31 200m West of Ferry Street Bridge	1700	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
32 120m Northwest of North Pond Main Gate	1700	155	13	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
33 120m Northwest of North Pond Main Gate	1745	155	13	Southwest	Downwind	Machines moving material	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 ($\mu\text{g}/\text{m}^3$)
120m Northwest of North Pond Main Gate	0700 to 0759	15	990
120m Northwest of North Pond Main Gate	0800 to 0859	30	990
120m Northwest of North Pond Main Gate	0900 to 0959	42	990
120m Northwest of North Pond Main Gate	1000 to 1059	53	990
120m Northwest of North Pond Main Gate	1100 to 1159	66	990
120m Northwest of North Pond Main Gate	1200 to 1259	80	990
120m Northwest of North Pond Main Gate	1300 to 1359	94	990
120m Northwest of North Pond Main Gate	1400 to 1459	107	990
120m Northwest of North Pond Main Gate	1500 to 1559	117	990
120m Northwest of North Pond Main Gate	1600 to 1659	130	990
120m Northwest of North Pond Main Gate	1700 to 1759	143	990

VOC Monitoring

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