

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-36
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	1 st June, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-NP-0074

**SUBJECT: 29th 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 29th of May, 2009. Alison Giovannetti and Shaun Dove 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 11°C
- Wind Direction: West to Southwest to Southeast to South

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 Alison Giovannetti 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
29th 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 150m Northeast of railway building	0700	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
2 20m South of new truck scale (N 46°09.016' W 060°11.383')	0700	155	9	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
3 20m South of new truck scale (N 46°09.016' W 060°11.383')	0730	155	12	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 200m NE of Railway building	0800	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m Southwest of new truck scale (N 46°09.266' W 060°11.656')	0800	155	37	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 100m Southwest of new truck scale (N 46°09.266' W 060°11.656')	0825	155	9	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
7 30m West of Inglis St. and Ferry St. intersection	0900	155	6	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 100m West of railway building (N 46°08.974' W 060°11.814')	0900	155	6	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 100m West of railway building (N 46°08.974' W 060°11.814')	0920	155	12	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 30m West of Inglis St. and Ferry St. intersection	1000	155	5	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 100m West of railway building (N 46°08.974' W 060°11.814')	1000	155	4	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 100m West of railway building (N 46°08.974' W 060°11.814')	1025	155	11	Southeast	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 10m East of fixed station on Intercolonial St.	1100	155	6	South	Upwind	Background	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
14 100m South of new truck scale (N 46°09.255' W 060°11.632')	1100	155	33	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 100m South of new truck scale (N 46°09.255' W 060°11.632')	1120	155	6	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 10m East of fixed station on Intercolonial St.	1200	155	5	South	Upwind	Background	No observations seen to affect sampling integrity
17 100m South of new truck scale (N 46°09.255' W 060°11.632')	1200	155	17	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 100m South of new truck scale (N 46°09.255' W 060°11.632')	1225	155	28	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 10m East of fixed station on Intercolonial St.	1300	155	8	South	Upwind	Background	No observations seen to affect sampling integrity
20 100m South of new truck scale (N 46°09.255' W 060°11.632')	1300	155	7	South	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
21 100m South of new truck scale (N 46°09.255' W 060°11.632')	1315	155	7	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
22 10m East of fixed station on Intercolonial St.	1400	155	7	South	Upwind	Background	No observations seen to affect sampling integrity
23 100m South of new truck scale (N 46°09.255' W 060°11.632')	1400	155	9	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
24 100m South of new truck scale (N 46°09.255' W 060°11.632')	1430	155	9	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
25 10m East of fixed station on Intercolonial St.	1500	155	6	South	Upwind	Background	No observations seen to affect sampling integrity
26 100m South of new truck scale (N 46°09.255' W 060°11.632')	1500	155	14	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
27 100m South of new truck scale (N 46°09.255' W 060°11.632')	1535	155	19	South	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 10m East of fixed station on Intercolonial St.	1600	155	9	South	Upwind	Background	No observations seen to affect sampling integrity
29 100m South of new truck scale (N 46°09.255' W 060°11.632')	1600	155	26	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
30 100m South of new truck scale (N 46°09.255' W 060°11.632')	1615	155	11	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
31 10m East of fixed station on Intercolonial St.	1700	155	6	South	Upwind	Background	No observations seen to affect sampling integrity
32 100m South of new truck scale (N 46°09.255' W 060°11.632')	1700	155	30	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
33 100m South of new truck scale (N 46°09.255' W 060°11.632')	1740	155	7	South	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 ($\mu\text{g}/\text{m}^3$)
20m South of new truck scale	0700 to 0759	11	990
100m Southwest of new truck scale	0800 to 0859	34	990
100m West of railway building	0900 to 0959	43	990
100m West of railway building	1000 to 1059	51	990
100m South of new truck scale	1100 to 1159	71	990
100m South of new truck scale	1200 to 1259	94	990
100m South of new truck scale	1300 to 1359	101	990
100m South of new truck scale	1400 to 1459	110	990
100m South of new truck scale	1500 to 1559	127	990
100m South of new truck scale	1600 to 1659	146	990
100m South of new truck scale	1700 to 1759	165	990

VOC Monitoring

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