

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1329-07
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	10 th June, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0175

**SUBJECT: 9th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Material Processing Facility
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 9th of June, 2009. Shaun Dove and Alison Giovannetti of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:
- Mainly cloudy
- Temperature: approximately 9°C
- Wind Direction: North

Comments: *ALL-TECH was on-Site at 0730 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 – Material Processing Facility
9th June, 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 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	0800	155	14	North	Upwind	Background	No observations seen to affect sampling integrity
2 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	0800	155	17	North	Downwind	Worker activity	No observations seen to affect sampling integrity
3 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	0820	155	6	North	Downwind	Zoom boom and cement truck operating	No observations seen to affect sampling integrity
4 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	0900	155	13	North	Upwind	Background	No observations seen to affect sampling integrity
5 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	0900	155	7	North	Downwind	Zoom boom and cement truck operating	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
6 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	0915	155	7	North	Downwind	Zoom boom and cement truck operating	No observations seen to affect sampling integrity
7 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	1000	155	11	North	Upwind	Background	No observations seen to affect sampling integrity
8 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1000	155	4	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1025	155	7	North	Downwind	Mini excavator moving material	No observations seen to affect sampling integrity
10 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	1100	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
11 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1100	155	5	North	Downwind	Worker activity	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
12 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1115	155	6	North	Downwind	Worker activity	No observations seen to affect sampling integrity
13 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	1200	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
14 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1200	155	6	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1220	155	6	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	1300	155	14	North	Upwind	Background	No observations seen to affect sampling integrity
17 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1300	155	5	North	Downwind	Zoom boom operating	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
18 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1330	155	4	North	Downwind	Zoom boom operating	No observations seen to affect sampling integrity
19 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	1400	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
20 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1400	155	5	North	Downwind	Zoom boom operating	No observations seen to affect sampling integrity
21 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1415	155	8	North	Downwind	Zoom boom operating	No observations seen to affect sampling integrity
22 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	1500	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
23 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1500	155	7	North	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
24 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1535	155	7	North	Downwind	Cement truck operating	No observations seen to affect sampling integrity
25 75m North of TP2 main entrance (N 46° 09.012' W 060° 11.374')	1600	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
26 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1600	155	9	North	Downwind	Cement truck operating	No observations seen to affect sampling integrity
27 50m Northwest of Acadian Lines bus terminal (N 46° 08.519' W 060° 11.164')	1640	155	10	North	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 ($\mu\text{g}/\text{m}^3$)
50m Northwest of Acadian Lines bus terminal	0800 to 0859	12	990
50m Northwest of Acadian Lines bus terminal	0900 to 0959	19	990
50m Northwest of Acadian Lines bus terminal	1000 to 1059	25	990
50m Northwest of Acadian Lines bus terminal	1100 to 1159	31	990
50m Northwest of Acadian Lines bus terminal	1200 to 1259	37	990
50m Northwest of Acadian Lines bus terminal	1300 to 1359	42	990
50m Northwest of Acadian Lines bus terminal	1400 to 1459	49	990
50m Northwest of Acadian Lines bus terminal	1500 to 1559	56	990
50m Northwest of Acadian Lines bus terminal	1600 to 1659	66	990

VOC Monitoring

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

