

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1309-13
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	26 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0167

**SUBJECT: 25th May, 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 25th of May, 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 sunny
- Temperature: approximately 19°C
- Wind Direction: Northwest to West

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
25th May, 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 275m North of Ferry St. and Railway Rd. intersection	0800	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 20m Southwest of Ferry St. and Inglis St. intersection	0800	155	8	Northwest	Downwind	Worker activity	No observations seen to affect sampling integrity
3 20m Southwest of Ferry St. and Inglis St. intersection	0825	155	6	Northwest	Downwind	Worker activity	No observations seen to affect sampling integrity
4 275m North of Ferry St. and Railway Rd. intersection	0900	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 20m Southwest of Ferry St. and Inglis St. intersection	0900	155	24	Northwest	Downwind	Worker activity	No observations seen to affect sampling integrity
6 20m Southwest of Ferry St. and Inglis St. intersection	0915	155	12	Northwest	Downwind	Worker activity	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 275m North of Ferry St. and Railway Rd. intersection	1000	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 20m Southwest of Ferry St. and Inglis St. intersection	1000	155	11	Northwest	Downwind	No activity visible on site	No observations seen to affect sampling integrity
9 20m Southwest of Ferry St. and Inglis St. intersection	1020	155	19	Northwest	Downwind	Worker activity	No observations seen to affect sampling integrity
10 275m North of Ferry St. and Railway Rd. intersection	1100	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m Southwest of Ferry St. and Inglis St. intersection	1100	155	17	Northwest	Downwind	Worker activity	No observations seen to affect sampling integrity
12 20m Southwest of Ferry St. and Inglis St. intersection	1125	155	14	Northwest	Downwind	Worker activity	No observations seen to affect sampling integrity
13 275m North of Ferry St. and Railway Rd. intersection	1200	155	6	Northwest	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 20m Southwest of Ferry St. and Inglis St. intersection	1200	155	14	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 20m Southwest of Ferry St. and Inglis St. intersection	1230	155	11	Northwest	Downwind	Worker activity	No observations seen to affect sampling integrity
16 125m North of Ferry St. and Railway Rd. intersection	1300	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
17 20m Northwest of Inglis St. and Ferry St. intersection	1300	155	24	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
18 20m Northwest of Inglis St. and Ferry St. intersection	1335	155	18	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
19 125m North of Ferry St. and Railway Rd. intersection	1400	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
20 20m Northwest of Inglis St. and Ferry St. intersection	1400	155	21	West	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
21 20m Northwest of Inglis St. and Ferry St. intersection	1430	155	24	West	Downwind	Worker activity	No observations seen to affect sampling integrity
22 125m North of Ferry St. and Railway Rd. intersection	1500	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
23 20m Northwest of Inglis St. and Ferry St. intersection	1500	155	23	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 20m Northwest of Inglis St. and Ferry St. intersection	1515	155	18	West	Downwind	Worker activity	No observations seen to affect sampling integrity
25 125m North of Ferry St. and Railway Rd. intersection	1600	155	20	West	Upwind	Background	No observations seen to affect sampling integrity
26 20m Northwest of Inglis St. and Ferry St. intersection	1600	155	30	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
27 20m Northwest of Inglis St. and Ferry St. intersection	1645	155	13	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 ($\mu\text{g}/\text{m}^3$)
20m Southwest of Ferry St. and Inglis St. intersection	0800 to 0859	7	990
20m Southwest of Ferry St. and Inglis St. intersection	0900 to 0959	25	990
20m Southwest of Ferry St. and Inglis St. intersection	1000 to 1059	40	990
20m Southwest of Ferry St. and Inglis St. intersection	1100 to 1159	56	990
20m Southwest of Ferry St. and Inglis St. intersection	1200 to 1259	69	990
20m Northwest of Inglis St. and Ferry St. intersection	1300 to 1359	90	990
20m Northwest of Inglis St. and Ferry St. intersection	1400 to 1459	113	990
20m Northwest of Inglis St. and Ferry St. intersection	1500 to 1559	134	990
20m Northwest of Inglis St. and Ferry St. intersection	1600 to 1659	156	990

VOC Monitoring

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