

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1309-07
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	14 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0161

**SUBJECT: 13th 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 13th 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 16°C
- Wind Direction: Southwest to North to South

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
13th 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 60m South of Ferry St. and Railway Rd. intersection	0800	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 50m Southeast of TP2 main entrance	0800	155	13	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
3 50m Southeast of TP2 main entrance	0825	155	28	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
4 60m South of Ferry St. and Railway Rd. intersection	0900	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 50m Southeast of TP2 main entrance	0900	155	21	Southwest	Downwind	Worker activity	No observations seen to affect sampling integrity
6 50m Southeast of TP2 main entrance	0930	155	70	Southwest	Downwind	Worker activity	Dust from street traffic

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 230m Northwest of TP2 security trailer off Inglis St.	1000	155	9	North	Upwind	Background	No observations seen to affect sampling integrity
8 20m North of Acadian Lines bus terminal	1000	155	8	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
9 20m North of Acadian Lines bus terminal	1015	155	9	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
10 230m Northwest of TP2 security trailer off Inglis St.	1100	155	10	North	Upwind	Background	No observations seen to affect sampling integrity
11 20m North of Acadian Lines bus terminal	1100	155	10	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
12 20m North of Acadian Lines bus terminal	1120	155	12	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
13 230m Northwest of TP2 security trailer off Inglis St.	1200	155	10	North	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 20m North of Acadian Lines bus terminal	1200	155	11	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
15 20m North of Acadian Lines bus terminal	1220	155	11	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
16 230m Northwest of TP2 security trailer off Inglis St.	1300	155	10	North	Upwind	Background	No observations seen to affect sampling integrity
17 20m North of Acadian Lines bus terminal	1300	155	12	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
18 20m North of Acadian Lines bus terminal	1325	155	12	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
19 230m Northwest of TP2 security trailer off Inglis St.	1400	155	20	North	Upwind	Background	No observations seen to affect sampling integrity
20 20m North of Acadian Lines bus terminal	1400	155	13	North	Downwind	Activity not visible from sampling location	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 North of Acadian Lines bus terminal	1420	155	13	North	Downwind	Activity not visible from sampling location	No observations seen to affect sampling integrity
22 50m Northwest of Terminal Rd. and Inglis St. intersection	1500	155	12	South	Upwind	Background	No observations seen to affect sampling integrity
23 50m Northwest of TP2 main entrance	1500	155	12	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 50m Northwest of TP2 main entrance	1525	155	27	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
25 50m Northwest of Terminal Rd. and Inglis St. intersection	1600	155	11	South	Upwind	Background	No observations seen to affect sampling integrity
26 50m Northwest of TP2 main entrance	1600	155	50	South	Downwind	Machines moving material	No observations seen to affect sampling integrity
27 50m Northwest of TP2 main entrance	1640	155	36	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 ($\mu\text{g}/\text{m}^3$)
50m Southeast of TP2 main entrance	0800 to 0859	21	990
50m Southeast of TP2 main entrance	0900 to 0959	67	990
20m North of Acadian Lines bus terminal	1000 to 1059	76	990
20m North of Acadian Lines bus terminal	1100 to 1159	87	990
20m North of Acadian Lines bus terminal	1200 to 1259	98	990
20m North of Acadian Lines bus terminal	1300 to 1359	110	990
20m North of Acadian Lines bus terminal	1400 to 1459	123	990
50m Northwest of TP2 main entrance	1500 to 1559	143	990
50m Northwest of TP2 main entrance	1600 to 1659	187	990

VOC Monitoring

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