

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1269-09
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	16 th February, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0107

**SUBJECT: 16th February, 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 16th of February, 2009. Tyler Rowe 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 -2°C
- Wind Direction: Northeast

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.*

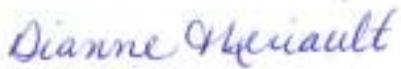
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Tyler Rowe 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
16th February, 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 Inglis Street, 150m North of Spar Road	0800	155	5	Northeast	Upwind	Background	No observations seen to affect sampling integrity
2 Railway property, 100m South of Ferry Street	0800	155	4	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 Railway property, 100m South of Ferry Street	0830	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
4 Inglis Street, 150m North of Spar Road	0900	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
5 Railway property, 100m South of Ferry Street	0900	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
6 Railway property, 100m South of Ferry Street	0920	155	1	Northeast	Downwind	Machines moving	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 Inglis Street, 150m North of Spar Road	1000	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
8 Railway property, 100m South of Ferry Street	1000	155	1	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 Railway property, 100m South of Ferry Street	1035	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
10 Inglis Street, 150m North of Spar Road	1100	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
11 Railway property, 100m South of Ferry Street	1100	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
12 Railway property, 100m South of Ferry Street	1140	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
13 Inglis Street, 150m North of Spar Road	1200	155	1	Northeast	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 Ferry Street, 90m West of bridge	1200	155	1	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 Ferry Street, 90m West of bridge	1245	155	1	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 Inglis Street, 150m North of Spar Road	1300	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
17 Ferry Street, 90m West of bridge	1300	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
18 Ferry Street, 90m West of bridge	1345	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
19 Inglis Street, 150m North of Spar Road	1400	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
20 Ferry Street, 90m West of bridge	1400	155	1	Northeast	Downwind	Machines moving	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 Ferry Street, 90m West of bridge	1435	155	1	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
22 Inglis Street, 150m North of Spar Road	1500	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
23 Ferry Street, 90m West of bridge	1500	155	2	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
24 Ferry Street, 90m West of bridge	1520	155	2	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
25 Inglis Street, 150m North of Spar Road	1600	155	1	Northeast	Upwind	Background	No observations seen to affect sampling integrity
26 Ferry Street, 90m West of bridge	1600	155	2	Northeast	Downwind	Machines moving	No observations seen to affect sampling integrity
27 Ferry Street, 90m West of bridge	1645	155	2	Northeast	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 ($\mu\text{g}/\text{m}^3$)
Railway property, 100m South of Ferry Street	0800 to 0859	3	990
Railway property, 100m South of Ferry Street	0900 to 0959	4	990
Railway property, 100m South of Ferry Street	1000 to 1059	5	990
Railway property, 100m South of Ferry Street	1100 to 1159	6	990
Ferry Street, 90m West of bridge	1200 to 1259	7	990
Ferry Street, 90m West of bridge	1300 to 1359	8	990
Ferry Street, 90m West of bridge	1400 to 1459	9	990
Ferry Street, 90m West of bridge	1500 to 1559	11	990
Ferry Street, 90m West of bridge	1600 to 1659	13	990

VOC Monitoring

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