

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1243-13
FROM	Dianne Theriault	SHIFT:	0730 to 1630
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	19 th December, 2008	STPA NO.	TP2-0075

**SUBJECT: 18th December, 2008, 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 18th of December, 2008. Colin MacIsaac 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:

- Cloudy with snow flurries
- Temperature: approximately -1°C
- Wind Direction: West to Northwest

Comments *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity, but was later put on standby at 1400 hours and cancelled for the day at 1630 hours due to ongoing precipitation. 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 Colin MacIsaac 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
18th December, 2008

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 75m North of Spar Road, Inglis Street intersection	0800	155	4	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
2 50m North of Ferry Street, Walker Street intersection	0830	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
3 75m North of Spar Road, Inglis Street intersection	0830	155	3	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 50m North of Ferry Street, Walker Street intersection	0900	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
5 75m North of Spar Road, Inglis Street intersection	0900	155	1	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 75m North of Spar Road, Inglis Street intersection	0945	155	7	West	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 70m West of Midland building on railway property	1000	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 20m North of Spar Road, Inglis Street intersection	1000	155	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 20m North of Spar Road, Inglis Street intersection	1045	155	3	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 70m West of Midland building on railway property	1100	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 20m North of Spar Road, Inglis Street intersection	1100	155	3	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 20m North of Spar Road, Inglis Street intersection	1145	155	2	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 70m West of Midland building on railway property	1200	155	3	Northwest	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 Spar Road, Inglis Street intersection	1200	155	2	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 20m North of Spar Road, Inglis Street intersection	1245	155	1	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 70m West of Midland building on railway property	1300	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 20m North of Spar Road, Inglis Street intersection	1300	155	2	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
18 20m North of Spar Road, Inglis Street intersection	1340	155	10	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 70m West of Midland building on railway property	1400	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 20m North of Spar Road, Inglis Street intersection	1400	155	6	Northwest	Downwind	Machines moving material	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 ($\mu\text{g}/\text{m}^3$)
75m North of Spar Road, Inglis Street intersection	0800 to 0859	4	990
75m North of Spar Road, Inglis Street intersection	0900 to 0959	8	990
20m North of Spar Road, Inglis Street intersection	1000 to 1059	11	990
20m North of Spar Road, Inglis Street intersection	1100 to 1159	14	990
20m North of Spar Road, Inglis Street intersection	1200 to 1259	16	990
20m North of Spar Road, Inglis Street intersection	1300 to 1359	22	990
20m North of Spar Road, Inglis Street intersection	1400 to 1459	28	990

VOC Monitoring

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