

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1269-08
FROM	Dianne Theriault	SHIFT:	0900 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	13 th February, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0106

**SUBJECT: 13th 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 13th of February, 2009. 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:

- Mainly cloudy
- Temperature: approximately -1°C
- Wind Direction: Northwest

Comments: *ALL-TECH's air monitoring was delayed due to precipitation and high humidity, and began at 1100 hours when weather conditions were within instrument specifications. Air monitoring was performed during AECOM's construction activities.*

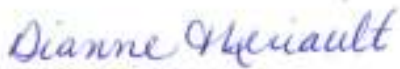
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Material Processing Facility
13th 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 5m West of Inglis Street, Spar Road intersection	1100	155	7	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
2 70m Southeast of Railway building	1130	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
3 5m West of Inglis Street, Spar Road intersection	1145	155	1	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
4 70m Southeast of Railway building	1200	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 5m West of Inglis Street, Spar Road intersection	1200	155	1	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 5m West of Inglis Street, Spar Road intersection	1240	155	12	Northwest	Downwind	Machine 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 Southeast of Railway building	1300	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 5m West of Inglis Street, Spar Road intersection	1300	155	7	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
9 5m West of Inglis Street, Spar Road intersection	1320	155	6	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
10 70m Southeast of Railway building	1400	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 5m West of Inglis Street, Spar Road intersection	1400	155	2	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
12 5m West of Inglis Street, Spar Road intersection	1420	155	2	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
13 70m Southeast of Railway building	1500	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 5m West of Inglis Street, Spar Road intersection	1500	155	2	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
15 5m West of Inglis Street, Spar Road intersection	1530	155	1	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
16 70m Southeast of Railway building	1600	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 5m West of Inglis Street, Spar Road intersection	1600	155	2	Northwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
18 5m West of Inglis Street, Spar Road intersection	1645	155	2	Northwest	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 ($\mu\text{g}/\text{m}^3$)
Standby (Background value of $33 \mu\text{g}/\text{m}^3$)	0800 to 0859	33	990
Standby (Background value of $33 \mu\text{g}/\text{m}^3$)	0900 to 0959	66	990
Standby (Background value of $33 \mu\text{g}/\text{m}^3$)	1000 to 1059	99	990
5m West of Inglis Street, Spar Road intersection	1100 to 1159	132	990
5m West of Inglis Street, Spar Road intersection	1200 to 1259	136	990
5m West of Inglis Street, Spar Road intersection	1300 to 1359	143	990
5m West of Inglis Street, Spar Road intersection	1400 to 1459	149	990
5m West of Inglis Street, Spar Road intersection	1500 to 1559	151	990
5m West of Inglis Street, Spar Road intersection	1600 to 1659	153	990

VOC Monitoring

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