

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1225-09
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	15 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0053

**SUBJECT: 14th November, 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 14th of November, 2008. Jennifer Andrews, and Reggie 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 7°C
- Wind Direction: Southeast to South

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech's construction activities.*

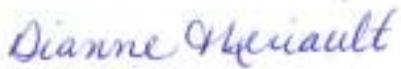
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Jennifer Andrews 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
14th November, 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
1 150 m Northwest of Ferry St. and Railway Rd. Intersection	0800	155	29	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
2 30 m North of Inglis and Sparr Rd. Intersection	0820	155	30	Southeast	Upwind	Background	No observations seen to affect sampling integrity
3 150 m Northwest of Ferry St. and Railway Rd. Intersection	0845	155	26	Southwest	Downwind	Machines moving materials	No observations seen to affect sampling integrity
4 30 m North of Inglis and Sparr Rd. Intersection	0900	155	19	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 150 m Northwest of Ferry St. and Railway Rd. Intersection	0900	155	59	Southeast	Downwind	Machines moving materials	Cement truck loading near by
6 150 m Northwest of Ferry St. and Railway Rd. Intersection	0920	155	22	Southeast	Downwind	Machines moving materials	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 30 m North of Inglis and Sparr Rd. Intersection	1000	155	13	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 150 m Northwest of Ferry St. and Railway Rd. Intersection	1000	155	6	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 150 m Northwest of Ferry St. and Railway Rd. Intersection	1025	155	4	Southeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
10 30 m North of Inglis and Sparr Rd. Intersection	1100	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 150 m Northwest of Ferry St. and Railway Rd. Intersection	1100	155	5	Southeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
12 150 m Northwest of Ferry St. and Railway Rd. Intersection	1130	155	5	Southeast	Downwind	Machines moving materials	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
13 30 m North of Inglis and Sparr Rd. Intersection	1200	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
14 150 m Northwest of Ferry St. and Railway Rd. Intersection	1200	155	6	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 150 m Northwest of Ferry St. and Railway Rd. Intersection	1240	155	6	Southeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
16 30 m North of Inglis and Sparr Rd. Intersection	1300	155	7	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 150 m Northwest of Ferry St. and Railway Rd. Intersection	1300	155	5	Southeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
18 150 m Northwest of Ferry St. and Railway Rd. Intersection	1325	155	5	Southeast	Downwind	Machines moving materials	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
19 30 m East of Ferry St. Bridge	1400	155	7	South	Upwind	Background	No observations seen to affect sampling integrity
20 15 m North of North Pond Main Gate	1400	155	8	South	Downwind	Machines moving materials	No observations seen to affect sampling integrity
21 15 m North of North Pond Main Gate	1415	155	6	South	Downwind	Machines moving materials	No observations seen to affect sampling integrity
22 30 m East of Ferry St. Bridge	1500	155	6	South	Upwind	Background	No observations seen to affect sampling integrity
23 5 m West of Inglis and Sparr Road Intersection	1500	155	5	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 5 m West of Inglis and Sparr Road Intersection	1540	155	6	South	Downwind	Machines moving materials	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
25 30 m East of Ferry St. Bridge	1600	155	8	South	Upwind	Background	No observations seen to affect sampling integrity
26 5 m West of Inglis and Sparr Road Intersection	1600	155	7	South	Downwind	Machines moving materials	No observations seen to affect sampling integrity
27 5 m West of Inglis and Sparr Road Intersection	1645	155	7	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 ($\mu\text{g}/\text{m}^3$)
150 m Northwest of Ferry St. and Railway Rd. Intersection	0800 to 0859	28	990
150 m Northwest of Ferry St. and Railway Rd. Intersection	0900 to 0959	69	990
150 m Northwest of Ferry St. and Railway Rd. Intersection	1000 to 1059	74	990
150 m Northwest of Ferry St. and Railway Rd. Intersection	1100 to 1159	80	990
150 m Northwest of Ferry St. and Railway Rd. Intersection	1200 to 1259	86	990
150 m Northwest of Ferry St. and Railway Rd. Intersection	1300 to 1359	91	990
5 m West of Inglis and Sparr Road Intersection	1400 to 1459	98	990
5 m West of Inglis and Sparr Road Intersection	1500 to 1559	104	990
5 m West of Inglis and Sparr Road Intersection	1600 to 1659	111	990

VOC Monitoring

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