

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-16
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	24 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0041

**SUBJECT: 23rd October, 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 23rd of October, 2008. Colin MacIsaac 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:

- Sunny with cloudy periods
- Temperature: approximately 7°C
- Wind Direction: East to Northeast

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 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:

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
23rd October, 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 30m N of Inglis and Spar Intersection	0800	155	6	East	Upwind	Background	No observations seen to affect sampling integrity
2 50m N of Ferry St. on railway fence line	0800	155	10	East	Downwind	Excavators in operation	No observations seen to effect sampling integrity
3 50m N of Ferry St. on railway fence line	0820	155	6	East	Downwind	Excavators in operation	No observations seen to effect sampling integrity
4 30m N of Inglis and Spar Intersection	0900	155	6	East	Upwind	Background	No observations seen to affect sampling integrity
5 50m N of Ferry St. on railway fence line	0900	155	6	East	Downwind	Excavators in operation	No observations seen to effect sampling integrity
6 50m N of Ferry St. on railway fence line	0920	155	5	East	Downwind	Excavators in operation	No observations seen to effect sampling integrity
7 30m N of Inglis and Spar Intersection	1000	155	4	East	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
8 50m N of Ferry St. on railway fence line	1000	155	6	East	Downwind	Excavators in operation	No observations seen to affect sampling integrity
9 30m S of Ferry St. on railway fence line	1045	155	6	East	Downwind	Excavators in operation	No observations seen to effect sampling integrity
10 50m N of Inglis and Spar Intersection	1100	155	5	Northeast	Upwind	Background	No observations seen to affect sampling integrity
11 30m S of Ferry St. on railway fence line	1100	155	6	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
12 30m S of Ferry St. on railway fence line	1120	155	6	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
13 50m N of Inglis and Spar Intersection	1200	155	4	Northeast	Upwind	Background	No observations seen to affect sampling integrity
14 30m S of Ferry St. on railway fence line	1200	155	6	Northeast	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 30m S of Ferry St. on railway fence line	1245	155	7	Northeast	Downwind	No activity observed on site	No observations seen to effect 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
16 50m N of Inglis and Spar Intersection	1300	155	6	Northeast	Upwind	Background	No observations seen to affect sampling integrity
17 30m S of Ferry St. on railway fence line	1300	155	6	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
18 30m S of Ferry St. on railway fence line	1320	155	7	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
19 50m N of Inglis and Sparr Intersection	1400	155	8	Northeast	Upwind	Background	No observations seen to affect sampling integrity
20 30m S of Ferry St. on railway fence line	1400	155	8	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
21 30m S of Ferry St. on railway fence line	1415	155	7	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
22 50m N of Inglis and Spar Intersection	1500	155	6	Northeast	Upwind	Background	No observations seen to affect sampling integrity
23 30m S of Ferry St. on railway fence line	1500	155	7	Northeast	Downwind	Excavators in operation	No observations seen to effect 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
24 30m S of Ferry St. on railway fence line	1545	155	6	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
25 50m N of Inglis and Spar Intersection	1600	155	8	Northeast	Upwind	Background	No observations seen to affect sampling integrity
26 30m S of Ferry St. on railway fence line	1600	155	7	Northeast	Downwind	Excavators in operation	No observations seen to effect sampling integrity
27 30m S of Ferry St. on railway fence line	1620	155	7	Northeast	Downwind	Excavators in operation	No observations seen to effect 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 N of Ferry St. and Railway fence line	0800 to 0859	8	990
50m N of Ferry St. and Railway fence line	0900 to 0959	14	990
50m N of Ferry St. and Railway fence line/30m S of Ferry St. railway fence line	1000 to 1059	20	990
30m S of Ferry St. and Railway fence line	1100 to 1159	26	990
30m S of Ferry St. and Railway fence line	1200 to 1259	33	990
30m S of Ferry St. and Railway fence line	1300 to 1359	40	990
30m S of Ferry St. and Railway fence line	1400 to 1459	47	990
30m S of Ferry St. and Railway fence line	1500 to 1559	54	990
30m S of Ferry St. and Railway fence line	1600 to 1659	61	990

VOC Monitoring

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