

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1225-14
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	25 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0058

**SUBJECT: 24th 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 24th of November, 2008. Tyler Rowe and Jennifer Andrews of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, flurries
- Temperature: approximately 2°C
- Wind Direction: West

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 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
24th 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 Railway property, 100m North of Ferry Street	0800	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
2 15m North of Inglis Street, Spar Road intersection	0800	155	8	West	Downwind	Machines operating	No observations seen to effect sampling integrity
3 15m North of Inglis Street, Spar Road intersection	0820	155	5	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
4 Railway property, 100m North of Ferry Street	0900	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
5 15m North of Inglis Street, Spar Road intersection	0900	155	6	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
6 15m North of Inglis Street, Spar Road intersection	0920	155	13	West	Downwind	Machines operating	No observations seen to effect sampling integrity
7 Railway property, 100m North of Ferry Street	1000	155	14	West	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 15m North of Inglis Street, Spar Road intersection	1000	155	6	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 15m North of Inglis Street, Spar Road intersection	1015	155	7	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
10 Railway property, 100m North of Ferry Street	1100	155	10	West	Upwind	Background	No observations seen to effect sampling integrity
11 15m North of Inglis Street, Spar Road intersection	1100	155	7	West	Downwind	Machines operating	No observations seen to effect sampling integrity
12 15m North of Inglis Street, Spar Road intersection	1115	155	6	West	Downwind	Machines operating	No observations seen to effect sampling integrity
13 Railway property, 100m North of Ferry Street	1200	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
14 15m North of Inglis Street, Spar Road intersection	1200	155	6	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 15m North of Inglis Street, Spar Road intersection	1215	155	4	West	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 Railway property, 100m North of Ferry Street	1300	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
17 15m North of Inglis Street, Spar Road intersection	1300	155	6	West	Downwind	Machines operating	No observations seen to effect sampling integrity
18 15m North of Inglis Street, Spar Road intersection	1315	155	8	West	Downwind	Machines operating	No observations seen to effect sampling integrity
19 Railway property, 100m North of Ferry Street	1400	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
20 15m North of Inglis Street, Spar Road intersection	1400	155	7	West	Downwind	Machines operating	No observations seen to effect sampling integrity
21 15m North of Inglis Street, Spar Road intersection	1415	155	4	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
22 Railway property, 100m North of Ferry Street	1500	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
23 15m North of Inglis Street, Spar Road intersection	1500	155	9	West	Downwind	Machines operating	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 15m North of Inglis Street, Spar Road intersection	1515	155	6	West	Downwind	Machines operating	No observations seen to effect sampling integrity
25 Railway property, 100m North of Ferry Street	1600	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
26 15m North of Inglis Street, Spar Road intersection	1600	155	6	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
27 15m North of Inglis Street, Spar Road intersection	1645	155	4	West	Downwind	No activity observed on site	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 ($\mu\text{g}/\text{m}^3$)
15m North of Inglis Street, Spar Road intersection	0800 to 0859	7	990
15m North of Inglis Street, Spar Road intersection	0900 to 0959	16	990
15m North of Inglis Street, Spar Road intersection	1000 to 1059	22	990
15m North of Inglis Street, Spar Road intersection	1100 to 1159	29	990
15m North of Inglis Street, Spar Road intersection	1200 to 1259	34	990
15m North of Inglis Street, Spar Road intersection	1300 to 1359	41	990
15m North of Inglis Street, Spar Road intersection	1400 to 1459	47	990
15m North of Inglis Street, Spar Road intersection	1500 to 1559	55	990
15m North of Inglis Street, Spar Road intersection	1600 to 1659	60	990

VOC Monitoring

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