

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1225-17
FROM	Dianne Theriault	SHIFT:	1030 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	28 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0061

**SUBJECT: 27th 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 27th of November, 2008. Tyler Rowe and Colin MacIsaac of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Rain in the morning, then mainly cloudy
- Temperature: approximately 9°C
- Wind Direction: Northwest

Comments: *ALL-TECH was on standby until 1030 when weather conditions were within instrument specifications. 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
27th November, 2008

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
1 Railway property, 200m North of Ferry Street	1130	155	1	Northwest	Upwind	Background	No observations seen to effect sampling integrity
2 50m West of Inglis Street, Spar Road intersection	1130	155	3	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
3 50m West of Inglis Street, Spar Road intersection	1145	155	4	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
4 Railway property, 200m North of Ferry Street	1200	155	2	Northwest	Upwind	Background	No observations seen to effect sampling integrity
5 50m West of Inglis Street, Spar Road intersection	1200	155	3	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
6 50m West of Inglis Street, Spar Road intersection	1245	155	4	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
7 Railway property, 200m North of Ferry Street	1300	155	2	Northwest	Upwind	Background	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
8 50m West of Inglis Street, Spar Road intersection	1300	155	3	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
9 Inglis Street, 20m North of Spar Road	1340	155	4	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
10 Railway property, 200m North of Ferry Street	1400	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
11 Inglis Street, 20m North of Spar Road	1400	155	6	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
12 Inglis Street, 20m North of Spar Road	1430	155	8	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
13 Railway property, 200m North of Ferry Street	1500	155	22	Northwest	Upwind	Background	Truck creating dry cement dust in area
14 Inglis Street, 20m North of Spar Road	1500	155	8	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
15 Inglis Street, 20m North of Spar Road	1515	155	16	Northwest	Downwind	Excavators moving material	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, 70m North of Ferry Street	1600	155	71	Northwest	Upwind	Background	Truck creating dry cement dust in area
17 Inglis Street, 20m North of Spar Road	1600	155	22	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
18 Inglis Street, 20m North of Spar Road	1645	155	16	Northwest	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 ($\mu\text{g}/\text{m}^3$)
50m West of Inglis Street, Spar Road intersection	1100 to 1159	4	990
50m West of Inglis Street, Spar Road intersection	1200 to 1259	8	990
50m West of Inglis Street, Spar Road intersection / Inglis Street, 20m North of Spar Road	1300 to 1359	12	990
Inglis Street, 20m North of Spar Road	1400 to 1459	19	990
Inglis Street, 20m North of Spar Road	1500 to 1559	31	990
Inglis Street, 20m North of Spar Road	1600 to 1659	50	990

VOC Monitoring

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