

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-17
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	27 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0042

**SUBJECT: 24th 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 24th 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:

- Mainly sunny
- Temperature: approximately 10°C
- Wind Direction: Northwest

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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Material Processing Facility
24th 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 Railway property, 100m North of Ferry Street	0800	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 70m E of Ferry St Bridge	0800	155	29	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
3 70m E of Ferry St Bridge	0845	155	16	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
4 Railway property, 100m North of Ferry Street	0900	155	18	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 50m E of Ferry St. Bridge	0900	155	18	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
6 50m E of Ferry St. Bridge	0930	155	13	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
7 Railway property, 200m North of Ferry Street	1000	155	108	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
8 50m E of Ferry St. Bridge	1000	155	12	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
9 70m E of Ferry St Bridge	1015	155	15	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
10 Railway property, 200m North of Ferry Street	1100	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 70m E of Ferry St Bridge	1100	155	9	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
12 70m E of Ferry St Bridge	1115	155	9	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
13 Railway property, 200m North of Ferry Street	1200	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 70m E of Ferry St Bridge	1200	155	8	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
15 70m E of Ferry St Bridge	1245	155	9	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
16 Railway property, 200m North of Ferry Street	1300	155	10	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
17 70m E of Ferry St Bridge	1300	155	12	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
18 Railway property, 200m North of Ferry Street	1400	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
19 70m E of Ferry St Bridge	1400	155	13	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
20 70m E of Ferry St Bridge	1445	155	13	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
21 Railway property, 200m North of Ferry Street	1500	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
22 70m E of Ferry St Bridge	1500	155	10	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
23 70m E of Ferry St Bridge	1545	155	16	Northwest	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
24 Railway property, 200m North of Ferry Street	1600	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
25 70m E of Ferry St Bridge	1600	155	17	Northwest	Downwind	Excavators in operation	No observations seen to effect sampling integrity
26 70m E of Ferry St Bridge	1630	155	11	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 ($\mu\text{g}/\text{m}^3$)
70m E of Ferry St Bridge	0800 to 0859	23	990
50m E of Ferry St Bridge	0900 to 0959	39	990
50m E of Ferry St Bridge/70m E of Ferry St Bridge	1000 to 1059	52	990
70m E of Ferry St Bridge	1100 to 1159	61	990
70m E of Ferry St Bridge	1200 to 1259	70	990
70m E of Ferry St Bridge	1300 to 1359	82	990
70m E of Ferry St Bridge	1400 to 1459	95	990
70m E of Ferry St Bridge	1500 to 1559	108	990
70m E of Ferry St Bridge	1600 to 1659	122	990

VOC Monitoring

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