

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1243-10
FROM	Dianne Theriault	SHIFT:	0730 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	16 th December, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0072

**SUBJECT: 15th December, 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 15th of December, 2008. Grant Harrigan 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 cloudy
- Temperature: approx. 5°C
- Wind Direction: Southwest

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.*

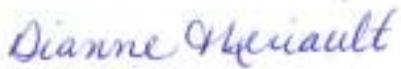
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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
15th December, 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 20m E of Ferry & Intercolonial Intersection	0800	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 200m N of Inglis & Spar Intersection	0800	155	13	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
3 200m N of Inglis & Spar Intersection	0820	155	12	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
4 20m E of Ferry & Intercolonial Intersection	0900	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 200m N of Inglis & Spar Intersection	0900	155	14	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
6 200m N of Inglis & Spar Intersection	0950	155	15	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
7 20m E of Ferry & Intercolonial Intersection	1000	155	17	Southwest	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 200m N of Inglis & Spar Intersection	1000	155	15	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
9 200m N of Inglis & Spar Intersection	1041	155	15	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
10 20m E of Ferry & Intercolonial Intersection	1100	155	22	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 200m N of Inglis & Spar Intersection	1100	155	17	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
12 200m N of Inglis & Spar Intersection	1115	155	17	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
13 20m E of Ferry & Intercolonial Intersection	1200	155	22	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 200m N of Inglis & Spar Intersection	1245	155	17	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
15 20m E of Ferry & Intercolonial Intersection	1300	155	24	Southwest	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 200m N of Inglis & Spar Intersection	1300	155	17	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
17 200m N of Inglis & Spar Intersection	1345	155	22	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
18 20m E of Ferry & Intercolonial Intersection	1400	155	27	Southwest	Upwind	Background	No observations seen to affect sampling integrity
19 200m N of Inglis & Spar Intersection	1400	155	50	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
20 200m N of Inglis & Spar Intersection	1418	155	25	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
21 20m E of Ferry & Intercolonial Intersection	1500	155	26	Southwest	Upwind	Background	No observations seen to affect sampling integrity
22 200m N of Inglis & Spar Intersection	1500	155	24	Southwest	Downwind	Excavator and crane in operation	No observations seen to effect sampling integrity
23 200m N of Inglis & Spar Intersection	1545	155	18	Southwest	Downwind	Excavator and crane 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 20m E of Ferry & Intercolonial Intersection	1600	155	27	Southwest	Upwind	Background	No observations seen to affect sampling integrity
25 200m N of Inglis & Spar Intersection	1600	155	20	Southwest	Downwind	Excavator and crane in operation	No observations seen to affect sampling integrity
26 200m N of Inglis & Spar Intersection	1645	155	23	Southwest	Downwind	Excavator and crane in operation	No observations seen to affect sampling integrity
27 20m E of Ferry & Intercolonial Intersection	1700	155	25	Southwest	Upwind	Background	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 ($\mu\text{g}/\text{m}^3$)
200m N of Inglis & Spar Intersection	0800 to 0859	13	990
200m N of Inglis & Spar Intersection	0900 to 0959	27	990
200m N of Inglis & Spar Intersection	1000 to 1059	42	990
200m N of Inglis & Spar Intersection	1100 to 1159	59	990
200m N of Inglis & Spar Intersection	1200 to 1259	76	990
200m N of Inglis & Spar Intersection	1300 to 1359	96	990
200m N of Inglis & Spar Intersection	1400 to 1459	134	990
200m N of Inglis & Spar Intersection	1500 to 1559	155	990
200m N of Inglis & Spar Intersection	1600 to 1659	177	990
200m N of Inglis & Spar Intersection	1700 to 1759	202	990

VOC Monitoring

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