

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-04
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	7 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0029

**SUBJECT: 6th 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 6th of October, 2008. Grant Harrigan and Colin MacIassac of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, sunny periods, showers
- Temperature: approximately 12°C
- Wind Direction: West to 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 Grant Harrigan 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
6th 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 200m North of Ferry Street on Railroad Tracks	0810	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
2 140m North of Ferry Street and Inglis Street Intersection	0810	155	7	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
3 140m North of Ferry Street and Inglis Street Intersection	0845	155	7	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 200m N of Ferry St. on railroad tracks	0900	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
5 140m North of Ferry Street and Inglis Street Intersection	0900	155	5	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 30m North of Ferry Street and Inglis Street Intersection	0940	155	8	Northwest	Downwind	Excavators moving material	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
7 200m North of Ferry Street and Railroad Tracks	1000	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m North of Ferry Street and Inglis Street Intersection	1000	155	5	Northwest	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
9 30m North of Ferry Street and Inglis Street Intersection	1040	155	25	Northwest	Downwind	Excavators moving material	Dust blown up by traffic on nearby Road
10 200m North of Ferry Street and Railroad Tracks	1100	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m North of Ferry Street and Inglis Street Intersection	1100	155	12	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
12 30m North of Ferry Street and Inglis Street Intersection	1130	155	11	Northwest	Downwind	Excavators moving material	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
13 200m North of Ferry Street and Railroad Tracks	1200	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 30m North of Ferry Street and Inglis Street Intersection	1200	155	10	Northwest	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
15 30m North of Ferry Street and Inglis Street Intersection	1245	155	9	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
16 200m North of Ferry Street and Railroad Tracks	1300	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 30m North of Ferry Street and Inglis Street Intersection	1300	155	5	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 30m North of Ferry Street and Inglis Street Intersection	1330	155	9	Northwest	Downwind	Excavators moving material	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
19 200m North of Ferry Street and Railroad Tracks	1400	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 30m North of Ferry Street and Inglis Street Intersection	1400	155	7	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
21 30m North of Ferry Street and Inglis Street Intersection	1440	155	12	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
22 200m North of Ferry Street and Railroad Tracks	1500	155	2	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 30m North of Ferry Street and Inglis Street Intersection	1500	155	7	Northwest	Downwind	No activity observed on-site	No observations seen to affect sampling integrity
24 30m North of Ferry Street and Inglis Street Intersection	1545	155	9	Northwest	Downwind	Excavators moving material	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
25 200m North of Ferry Street and Railroad Tracks	1600	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 30m North of Ferry Street and Inglis Street Intersection	1600	155	7	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
27 30m North of Ferry Street and Inglis Street Intersection	1621	155	4	Northwest	Downwind	No activity observed on-site	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 ($\mu\text{g}/\text{m}^3$)
140m North of Ferry Street and Inglis Street Intersection	0800 to 0859	7	990
30m/140m North of Ferry Street and Inglis Street Intersection	0900 to 0959	14	990
30m North of Ferry Street and Inglis Street Intersection	1000 to 1059	29	990
30m North of Ferry Street and Inglis Street Intersection	1100 to 1159	42	990
30m North of Ferry Street and Inglis Street Intersection	1200 to 1259	52	990
30m North of Ferry Street and Inglis Street Intersection	1300 to 1359	59	990
30m North of Ferry Street and Inglis Street Intersection	1400 to 1459	69	990
30m North of Ferry Street and Inglis Street Intersection	1500 to 1559	76	990
30m North of Ferry Street and Inglis Street Intersection	1600 to 1659	81	990

VOC Monitoring

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