

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-06
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	8 th October, 2008	STPA NO.	TP2-0031

**SUBJECT: 8th 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 8th of October, 2008. Grant Harrigan and Colin MacLssac of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy with showers
- Temperature: approximately 9°C
- Wind Direction: Northwest to North

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
8th 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 and Railroad Tracks	0813	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m North of Ferry Street and Inglis Street Intersection	0813	155	5	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
3 30m North of Ferry Street and Inglis Street Intersection	0845	155	6	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 200m North of Ferry Street and Railroad Tracks	0900	155	5	North	Upwind	Background	No observations seen to affect sampling integrity
5 140m West of Ferry Street and Inglis Street Intersection	0900	155	4	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 140m West of Ferry Street and Inglis Street Intersection	0945	155	10	North	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	6	North	Upwind	Background	No observations seen to affect sampling integrity
8 140m West of Ferry Street and Inglis Street Intersection	1000	155	6	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
9 140m West of Ferry Street and Inglis Street Intersection	1040	155	6	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
10 200m North of Ferry Street and Railroad Tracks	1100	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
11 140m West of Ferry Street and Inglis Street Intersection	1100	155	6	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
12 60m East of Ferry Street Bridge	1145	155	7	North	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	5	North	Upwind	Background	No observations seen to affect sampling integrity
14 60m East of Ferry Street Bridge	1200	155	6	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
15 60m East of Ferry Street Bridge	1215	155	6	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
16 200m North of Ferry Street and Railroad Tracks	1300	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
17 50m East of Ferry Street Bridge	1300	155	9	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 50m East of Ferry Street Bridge	1345	155	16	North	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	5	North	Upwind	Background	No observations seen to affect sampling integrity
20 50m East of Ferry Street Bridge	1400	155	12	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
21 50m East of Ferry Street Bridge	1430	155	16	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
22 200m North of Ferry Street and Railroad Tracks	1500	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
23 50m East of Ferry Street Bridge	1500	155	10	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
24 50m East of Ferry Street Bridge	1530	155	18	North	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	7	North	Upwind	Background	No observations seen to affect sampling integrity
26 50m East of Ferry Street Bridge	1600	155	9	North	Downwind	Excavators moving material	No observations seen to affect sampling integrity
27 50m East of Ferry Street Bridge	1620	155	7	North	Downwind	Excavators moving material	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 ($\mu\text{g}/\text{m}^3$)
30m North of Ferry Street and Inglis Street Intersection	0800 to 0859	6	990
140m West of Ferry Street and Inglis Street Intersection	0900 to 0959	14	990
140m West of Ferry Street and Inglis Street Intersection	1000 to 1059	20	990
140m West of Ferry Street and Inglis Street Intersection/ 60m East of Ferry Street Bridge	1100 to 1159	27	990
60m East of Ferry Street Bridge	1200 to 1259	35	990
60m East of Ferry Street Bridge	1300 to 1359	56	990
60m East of Ferry Street Bridge	1400 to 1459	70	990
60m East of Ferry Street Bridge	1500 to 1559	84	990
60m East of Ferry Street Bridge	1600 to 1659	98	990

VOC Monitoring

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