

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1194-18
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	25 th September, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0022

**SUBJECT: 25th September 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 25th of September, 2008. Alison Giovannetti 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:

- Clear skies
- Temperature: approximately 15°C
- Wind Direction: West to 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 Colin MacIsaac 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
25th September, 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 50m East of Midland along fence on Railway Road	0810	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
2 140m North of Spar Road and Inglis Street intersection	0810	155	14	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 60m East of North Pond main gate	0840	155	20	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
4 Ferry Street and Walker Street intersection	0900	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 60m East of North Pond main gate	0900	155	33	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
6 60m East of North Pond main gate	0945	155	12	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
7 Ferry Street and Walker Street intersection	1000	155	6	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 60m East of North Pond main gate	1000	155	7	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
9 60m East of North Pond main gate	1035	155	8	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
10 Ferry Street and Walker Street intersection	1100	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 60m East of North Pond main gate	1100	155	8	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
12 160m North of Spar Road, Inglis Street intersection	1124	155	5	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
13 Ferry Street and Walker Street intersection	1200	155	3	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 160m North of Spar Road, Inglis Street intersection	1200	155	10	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 160m North of Spar Road, Inglis Street intersection	1215	155	4	Southwest	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
16 Ferry Street and Walker Street intersection	1300	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 160m North of Spar Road, Inglis Street intersection	1300	155	13	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
18 160m North of Spar Road, Inglis Street intersection	1345	155	24	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
19 Ferry Street and Walker Street intersection	1400	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 120m North of Spar Road, Inglis Street intersection	1400	155	26	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
21 120m North of Spar Road, Inglis Street intersection	1445	155	10	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
22 Ferry Street and Walker Street intersection	1500	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 120m North of Spar Road, Inglis Street intersection	1500	155	6	Southwest	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 120m North of Spar Road, Inglis Street intersection	1530	155	13	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
25 Ferry Street and Walker Street intersection	1600	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 120m North of Spar Road, Inglis Street intersection	1600	155	10	Southwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
27 120m North of Spar Road, Inglis Street intersection	1645	155	6	Southwest	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 (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
140m North of Spar Road and Inglis Street intersection	0800 to 0859	17	990
60m East of North Pond main gate	0900 to 0959	40	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
60m East of North Pond main gate	1000 to 1059	48	990
60m East of North Pond main gate	1100 to 1159	55	990
160m North of Spar Road, Inglis Street intersection	1200 to 1259	62	990
160m North of Spar Road, Inglis Street intersection	1300 to 1359	81	990
120m North of Spar Road, Inglis Street intersection	1400 to 1459	99	990
120m North of Spar Road, Inglis Street intersection	1500 to 1559	109	990
120m North of Spar Road, Inglis Street intersection	1600 to 1659	117	990

VOC Monitoring

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