

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1194-16
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	24 th September, 2008	STPA NO.	TP2-0020

**SUBJECT: 23rd 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 23rd 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:

- Sunny with cloudy periods and showers
- Temperature: approximately 14°C
- Wind Direction: West to Northwest to West

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. Monitoring was put on standby between 1230 and 1330 due to precipitation. 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
23rd September, 2008

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
1 30m East of Midland along fence on Railway Road	0810	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
2 120m North of Spar Road, Inglis Street intersection	0810	155	9	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 120m North of Spar Road, Inglis Street intersection	0845	155	26	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
4 30m East of Midland along fence on Railway Road	0900	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
5 120m North of Spar Road, Inglis Street intersection	0900	155	22	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
6 40m North of Spar Road, Inglis Street intersection	0945	155	6	Northwest	Downwind	Two excavators operating	No observations seen to effect sampling integrity
7 30m East of Midland along fence on Railway Road	1000	155	6	West	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 120m North of Spar Road, Inglis Street intersection	1045	155	24	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
9 30m East of Midland along fence on Railway Road	1100	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
10 120m North of Spar Road, Inglis Street intersection	1100	155	14	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
11 120m North of Spar Road, Inglis Street intersection	1120	155	23	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
12 30m East of Midland along fence on Railway Road	1200	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
13 80m North of Spar Road, Inglis Street intersection	1200	155	24	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
14 30m East of Midland along fence on Railway Road	1330	155	6	West	Upwind	Background	No observations seen to effect sampling integrity
15 80m North of Spar Road, Inglis Street intersection	1340	155	7	West	Downwind	Two excavators operating	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 30m East of Midland along fence on Railway Road	1400	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
17 80m North of Spar Road, Inglis Street intersection	1400	155	9	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
18 80m North of Spar Road, Inglis Street intersection	1445	155	18	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
19 30m East of Midland along fence on Railway Road	1500	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
20 80m North of Spar Road, Inglis Street intersection	1500	155	7	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
21 80m North of Spar Road, Inglis Street intersection	1515	155	26	West	Downwind	Two excavators operating	No observations seen to effect sampling integrity
22 30m East of Midland along fence on Railway Road	1600	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
23 80m North of Spar Road, Inglis Street intersection	1600	155	7	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity

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
24 80m North of Spar Road, Inglis Street intersection	1645	155	12	West	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 ($\mu\text{g}/\text{m}^3$)
120m North of Spar Road, Inglis Street intersection	0800 to 0859	18	990
120m North of Spar Road, Inglis Street intersection	0900 to 0959	32	990
120m North of Spar Road, Inglis Street intersection	1000 to 1059	56	990
120m North of Spar Road, Inglis Street intersection	1100 to 1159	74	990
80m North of Spar Road, Inglis Street intersection	1200 to 1259	98	990
80m North of Spar Road, Inglis Street intersection	1300 to 1359	105	990
80m North of Spar Road, Inglis Street intersection	1400 to 1459	119	990
80m North of Spar Road, Inglis Street intersection	1500 to 1559	136	990
80m North of Spar Road, Inglis Street intersection	1600 to 1659	146	990

VOC Monitoring

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