

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1243-15
FROM	Dianne Theriault	SHIFT:	0730 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	23 rd December, 2008	STPA NO.	TP2-0077

**SUBJECT: 22nd 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 22nd of December, 2008. Tyler Rowe and Reg Peters, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, with snow flurries
- Temperature: approximately -5°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity, but was later put on standby from 0930 to 1015 hours, and 1500 to 1700 hours due to periods of precipitation. Air monitoring was performed during AECOM'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 Tyler Rowe 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
22nd 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 Inglis Street, 140m North of Spar Road	0800	155	17	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
2 Walker Street, 15m North of Ferry Street	0815	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 Inglis Street, 140m North of Spar Road	0835	155	19	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
4 Walker Street, 15m North of Ferry Street	0900	155	19	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis Street, 140m North of Spar Road	0900	155	19	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
6 Walker Street, 15m North of Ferry Street	1015	155	19	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
7 Inglis Street, 140m North of Spar Road	1015	155	16	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
8 Inglis Street, 140m North of Spar Road	1045	155	16	Southwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
9 Walker Street, 15m North of Ferry Street	1100	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
10 Inglis Street, 140m North of Spar Road	1100	155	15	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
11 Inglis Street, 140m North of Spar Road	1130	155	13	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
12 Walker Street, 15m North of Ferry Street	1200	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
13 Inglis Street, 140m North of Spar Road	1200	155	9	Southwest	Downwind	No activity observed on site	No observations seen to affect 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
14 Inglis Street, 140m North of Spar Road	1220	155	8	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 Walker Street, 15m North of Ferry Street	1300	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
16 Inglis Street, 140m North of Spar Road	1300	155	6	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
17 Inglis Street, 140m North of Spar Road	1320	155	6	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
18 Walker Street, 15m North of Ferry Street	1400	155	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
19 Inglis Street, 140m North of Spar Road	1400	155	5	Southwest	Downwind	Machine moving material	No observations seen to affect sampling integrity
20 Inglis Street, 140m North of Spar Road	1400	155	5	Southwest	Downwind	Machine 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
21 Inglis Street, 140m North of Spar Road	1445	155	6	Southwest	Downwind	Machine 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 ($\mu\text{g}/\text{m}^3$)
Inglis Street, 140m North of Spar Road	0800 to 0859	18	990
Inglis Street, 140m North of Spar Road	0900 to 0959	37	990
Inglis Street, 140m North of Spar Road	1000 to 1059	53	990
Inglis Street, 140m North of Spar Road	1100 to 1159	67	990
Inglis Street, 140m North of Spar Road	1200 to 1259	76	990
Inglis Street, 140m North of Spar Road	1300 to 1359	82	990
Inglis Street, 140m North of Spar Road	1400 to 1459	88	990

VOC Monitoring

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