

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1279-17
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	30 th March, 2009	STPA NO.	TP2-0133

**SUBJECT: 27th March, 2009, 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 27th of March, 2009. Shaun Dove and Trevor Rowe, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly sunny
- Temperature: approximately 4°C
- Wind Direction: North

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. 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 Shaun Dove 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
27th March, 2009

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 100m North of TP2 Site	0800	155	12	North	Upwind	Background	No observations seen to affect sampling integrity
2 100m North West of Inglis Street And Terminal Road Intersection	0800	155	12	North	Downwind	Worker activity	No observations seen to affect sampling integrity
3 100m North West of Inglis Street And Terminal Road Intersection	0830	155	6	North	Downwind	Worker activity	No observations seen to affect sampling integrity
4 Inglis Street 100m North of TP2 Site	0900	155	5	North	Upwind	Background	No observations seen to affect sampling integrity
5 100m North West of Inglis Street And Terminal Road Intersection	0900	155	6	North	Downwind	Worker activity	No observations seen to affect sampling integrity
6 100m North West of Inglis Street And Terminal Road Intersection	0930	155	10	North	Downwind	Worker activity	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
7 Inglis Street 100m North of TP2 Site	1000	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
8 100m North West of Inglis Street And Terminal Road Intersection	1000	155	3	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 100m North West of Inglis Street And Terminal Road Intersection	1020	155	2	North	Downwind	Worker activity	No observations seen to affect sampling integrity
10 Inglis Street 100m North of TP2 Site	1100	155	1	North	Upwind	Background	No observations seen to affect sampling integrity
11 100m North West of Inglis Street And Terminal Road Intersection	1100	155	3	North	Downwind	Worker activity	No observations seen to affect sampling integrity
12 100m North West of Inglis Street And Terminal Road Intersection	1140	155	4	North	Downwind	Worker activity	No observations seen to affect sampling integrity
13 Inglis Street 100m North of TP2 Site	1200	155	1	North	Upwind	Background	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 100m North West of Inglis Street And Terminal Road Intersection	1200	155	2	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 100m North West of Inglis Street And Terminal Road Intersection	1240	155	3	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 Inglis Street 100m North of TP2 Site	1300	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
17 100m North West of Inglis Street And Terminal Road Intersection	1300	155	3	North	Downwind	Worker activity	No observations seen to affect sampling integrity
18 100m North West of Inglis Street And Terminal Road Intersection	1325	155	3	North	Downwind	Worker activity	No observations seen to affect sampling integrity
19 Inglis Street 100m North of TP2 Site	1400	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
20 100m North West of Inglis Street And Terminal Road Intersection	1400	155	3	North	Downwind	Worker activity	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 100m North West of Inglis Street And Terminal Road Intersection	1430	155	3	North	Downwind	Worker activity	No observations seen to affect sampling integrity
22 Inglis Street 100m North of TP2 Site	1500	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
23 100m North West of Inglis Street And Terminal Road Intersection	1500	155	3	North	Downwind	Worker activity	No observations seen to affect sampling integrity
24 100m North West of Inglis Street And Terminal Road Intersection	1530	155	6	North	Downwind	Worker activity	No observations seen to affect sampling integrity
25 Inglis Street 100m North of TP2 Site	1600	155	0	North	Upwind	Background	No observations seen to affect sampling integrity
26 100m North West of Inglis Street And Terminal Road Intersection	1600	155	3	North	Downwind	Worker activity	No observations seen to affect sampling integrity
27 100m North West of Inglis Street And Terminal Road Intersection	1645	155	3	North	Downwind	Worker activity	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 ($\mu\text{g}/\text{m}^3$)
100m North West of Inglis Street And Terminal Road Intersection	0800 to 0859	9	990
100m North West of Inglis Street And Terminal Road Intersection	0900 to 0959	17	990
100m North West of Inglis Street And Terminal Road Intersection	1000 to 1059	20	990
100m North West of Inglis Street And Terminal Road Intersection	1100 to 1159	24	990
100m North West of Inglis Street And Terminal Road Intersection	1200 to 1259	27	990
100m North West of Inglis Street And Terminal Road Intersection	1300 to 1359	30	990
100m North West of Inglis Street And Terminal Road Intersection	1400 to 1459	33	990
100m North West of Inglis Street And Terminal Road Intersection	1500 to 1559	38	990
100m North West of Inglis Street And Terminal Road Intersection	1600 to 1659	41	990

VOC Monitoring

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