

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1309-03
FROM	Dianne Theriault	SHIFT:	0900 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	8 th May, 2009	STPA NO.	TP2-0157

**SUBJECT: 7th May, 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 7th of May, 2009. Dave Reeves and Jeff King of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, rain
- Temperature: approximately 8°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0900 hours and sampling began as soon as there was site activity, but was later put on standby at 1530 hours and cancelled for the day at 1730 due to ongoing 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 Jeff King 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
7th May, 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 Railway property, 200m North of Ferry St.	0930	155	2	West	Upwind	Background	No observations seen to affect sampling integrity
2 50m North of Inglis St. and Spar Rd. intersection	0930	155	7	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
3 50m North of Inglis St. and Spar Rd. intersection	0945	155	10	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
4 Railway property, 200m North of Ferry St.	1000	155	1	West	Upwind	Background	No observations seen to affect sampling integrity
5 50m North of Inglis St. and Spar Rd. intersection	1000	155	5	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
6 50m North of Inglis St. and Spar Rd. intersection	1040	155	1	West	Downwind	Excavator operating, concrete being poured	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 Railway property, 200m North of Ferry St.	1100	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
8 50m North of Inglis St. and Spar Rd. intersection	1100	155	4	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
9 50m North of Inglis St. and Spar Rd. intersection	1130	155	4	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
10 Railway property, 200m North of Ferry St.	1200	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
11 50m North of Inglis St. and Spar Rd. intersection	1200	155	12	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
12 50m North of Inglis St. and Spar Rd. intersection	1230	155	3	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
13 Railway property, 200m North of Ferry St.	1300	155	4	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
14 50m North of Inglis St. and Spar Rd. intersection	1300	155	4	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
15 50m North of Inglis St. and Spar Rd. intersection	1330	155	3	West	Downwind	Excavator operating, concrete being poured	No observations seen to affect sampling integrity
16 Railway property, 200m North of Ferry St.	1400	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
17 50m North of Inglis St. and Spar Rd. intersection	1400	155	4	West	Downwind	Excavator operating, roofing, concrete being poured	No observations seen to affect sampling integrity
18 50m North of Inglis St. and Spar Rd. intersection	1440	155	6	West	Downwind	Excavator operating, roofing, concrete being poured	No observations seen to affect sampling integrity
19 Railway property, 200m North of Ferry St.	1500	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
20 50m North of Inglis St. and Spar Rd. intersection	1510	155	5	West	Downwind	Excavator operating, roofing, concrete being poured	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 ($\mu\text{g}/\text{m}^3$)
50m North of Inglis St. and Spar Rd. intersection	0900 to 0959	9	990
50m North of Inglis St. and Spar Rd. intersection	1000 to 1059	12	990
50m North of Inglis St. and Spar Rd. intersection	1100 to 1159	16	990
50m North of Inglis St. and Spar Rd. intersection	1200 to 1259	24	990
50m North of Inglis St. and Spar Rd. intersection	1300 to 1359	28	990
50m North of Inglis St. and Spar Rd. intersection	1400 to 1459	33	990
50m North of Inglis St. and Spar Rd. intersection	1500 to 1559	38	990

VOC Monitoring

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