

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1257-04
FROM	Dianne Theriault	SHIFT:	1100 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	9 th January, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0082

**SUBJECT: 8th January, 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 8th of January, 2009. Jennifer Andrews 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:

- Cloudy with strong winds
- Temperature: approximately 5°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 1100 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 Jennifer Andrews 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
8th January, 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 120m North of Inglis and Spar Rd. intersection	1130	155	19	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
2 75m South of Inglis and Intercolonial St. intersection	1145	155	23	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 120m North of Inglis and Spar Rd. intersection	1145	155	13	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
4 75m South of Inglis and Intercolonial St. intersection	1200	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 120m North of Inglis and Spar Rd. intersection	1200	155	11	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 120m North of Inglis and Spar Rd. intersection	1245	155	10	Southwest	Downwind	Machines Moving Materials	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 75m South of Inglis and Intercolonial St. intersection	1300	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 120m North of Inglis and Spar Rd. intersection	1300	155	8	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
9 120m North of Inglis and Spar Rd. intersection	1345	155	1	Southwest	Downwind	Machines Moving Materials	Recalibrated Dust Track
10 75m South of Inglis and Intercolonial St. intersection	1400	155	1	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 120m North of Inglis and Spar Rd. intersection	1400	155	2	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
12 120m North of Inglis and Spar Rd. intersection	1430	155	3	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
13 75m South of Inglis and Intercolonial St. intersection	1500	155	3	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
14 120m North of Inglis and Spar Rd. intersection	1500	155	3	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
15 120m North of Inglis and Spar Rd. intersection	1540	155	4	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
16 75m South of Inglis and Intercolonial St. intersection	1600	155	3	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 120m North of Inglis and Spar Rd. intersection	1600	155	4	Southwest	Downwind	Machines Moving Materials	No observations seen to affect sampling integrity
18 120m North of Inglis and Spar Rd. intersection	1645	155	4	Southwest	Downwind	Machines Moving Materials	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 ($\mu\text{g}/\text{m}^3$)
120m North of Inglis and Spar Rd. intersection	1100 to 1159	16	990
120m North of Inglis and Spar Rd. intersection	1200 to 1259	27	990
120m North of Inglis and Spar Rd. intersection	1300 to 1359	31	990
120m North of Inglis and Spar Rd. intersection	1400 to 1459	34	990
120m North of Inglis and Spar Rd. intersection	1500 to 1559	38	990
120m North of Inglis and Spar Rd. intersection	1600 to 1659	42	990

VOC Monitoring

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