

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1291-15
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	23 rd April, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0149

**SUBJECT: 22nd April, 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 22nd of April, 2009. Shaun Dove and Alison Giovannetti, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy
- Temperature: approximately 9°C
- Wind Direction: Southwest

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 Alison Giovannetti 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 April, 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 25m Northwest of fixed station on Intercolonial St.	0800	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 100m Northwest of Inglis St. and Spar Rd. intersection	0800	155	17	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
3 100m Northwest of Inglis St. and Spar Rd. intersection	0830	155	19	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 25m Northwest of fixed station on Intercolonial St.	0900	155	21	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m Northwest of Inglis St. and Spar Rd. intersection	0900	155	23	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 100m Northwest of Inglis St. and Spar Rd. intersection	0920	155	24	Southwest	Downwind	Excavators 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
7 25m Northwest of fixed station on Intercolonial St.	1000	155	23	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 100m Northwest of Inglis St. and Spar Rd. intersection	1000	155	25	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 100m Northwest of Inglis St. and Spar Rd. intersection	1030	155	26	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
10 25m Northwest of fixed station on Intercolonial St.	1100	155	25	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 100m Northwest of Inglis St. and Spar Rd. intersection	1100	155	26	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
12 100m Northwest of Inglis St. and Spar Rd. intersection	1120	155	26	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
13 25m Northwest of fixed station on Intercolonial St.	1200	155	28	Southwest	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 Northwest of Inglis St. and Spar Rd. intersection	1200	155	28	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 100m Northwest of Inglis St. and Spar Rd. intersection	1215	155	28	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 25m Northwest of fixed station on Intercolonial St.	1300	155	31	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 100m Northwest of Inglis St. and Spar Rd. intersection	1300	155	30	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 100m Northwest of Inglis St. and Spar Rd. intersection	1325	155	30	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
19 25m Northwest of fixed station on Intercolonial St.	1400	155	30	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 100m Northwest of Inglis St. and Spar Rd. intersection	1400	155	31	Southwest	Downwind	Excavators 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 100m Northwest of Inglis St. and Spar Rd. intersection	1420	155	31	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
22 25m Northwest of fixed station on Intercolonial St.	1500	155	32	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 100m Northwest of Inglis St. and Spar Rd. intersection	1500	155	31	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 100m Northwest of Inglis St. and Spar Rd. intersection	1540	155	30	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
25 25m Northwest of fixed station on Intercolonial St.	1600	155	30	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 100m Northwest of Inglis St. and Spar Rd. intersection	1600	155	29	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
27 100m Northwest of Inglis St. and Spar Rd. intersection	1645	155	28	Southwest	Downwind	No activity observed on site	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 Northwest of Inglis St. and Spar Rd. intersection	0800 to 0859	18	990
100m Northwest of Inglis St. and Spar Rd. intersection	0900 to 0959	42	990
100m Northwest of Inglis St. and Spar Rd. intersection	1000 to 1059	68	990
100m Northwest of Inglis St. and Spar Rd. intersection	1100 to 1159	94	990
100m Northwest of Inglis St. and Spar Rd. intersection	1200 to 1259	122	990
100m Northwest of Inglis St. and Spar Rd. intersection	1300 to 1359	152	990
100m Northwest of Inglis St. and Spar Rd. intersection	1400 to 1459	183	990
100m Northwest of Inglis St. and Spar Rd. intersection	1500 to 1559	214	990
100m Northwest of Inglis St. and Spar Rd. intersection	1600 to 1659	243	990

VOC Monitoring

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