

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1289-02
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	26 th March, 2009	STPA NO.	CO2-0002

**SUBJECT: 25th March, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency –Tar Cell
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 25th of March, 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:

- Mainly cloudy
- Temperature: approximately -1°C
- Wind Direction: Northeast

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.*

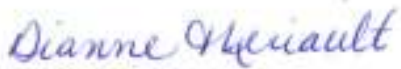
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 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 – Tar Cell
25th 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
1 100 M SE of Spar Rd and Spar Rd Extension Intersection	0800	155	10	Northeast	Downwind	Machine moving material	No observations seen to affect sampling integrity
2 100 M SE of Spar Rd and Spar Rd Extension Intersection	0825	155	10	Northeast	Downwind	Machine moving material	No observations seen to affect sampling integrity
3 15 M SE of Fredrick St and Lingan Rd Intersection	0900	155	9	Northeast	Upwind	Background	No observations seen to affect sampling integrity
4 100 M SE of Spar Rd and Spar Rd Extension Intersection	0900	155	9	Northeast	Downwind	Machine moving material	No observations seen to affect sampling integrity
5 100 M SE of Spar Rd and Spar Rd Extension Intersection	0945	155	9	Northeast	Downwind	Machine moving material	No observations seen to affect sampling integrity
6 15 M SE of Fredrick St and Lingan Rd intersection	1000	155	53	Northeast	Upwind	Background	Traffic

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
7 100 M SE of Spar Rd and Spar Rd Extension Intersection	1000	155	9	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
8 100 M SE of Spar Rd and Spar Rd Extension Intersection	1040	155	13	Northeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
9 15 M SE of Fredrick St and Lingan Rd intersection	1100	155	11	Northeast	Upwind	Background	No observations seen to affect sampling integrity
10 100 M SE of Spar Rd and Spar Rd Extension Intersection	1100	155	15	Northeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
11 100 M SE of Spar Rd and Spar Rd Extension Intersection	1125	155	12	Northeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
12 15 M SE of Fredrick St and Lingan Rd intersection	1200	155	9	Northeast	Upwind	Background	No observations seen to affect sampling integrity
13 100 M SE of Spar Rd and Spar Rd Extension Intersection	1200	155	10	Northeast	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
14 100 M SE of Spar Rd and Spar Rd Extension Intersection	1245	155	10	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 15 M SE of Fredrick St and Lingan Rd intersection	1300	155	9	Northeast	Upwind	Background	No observations seen to affect sampling integrity
16 100 M SE of Spar Rd and Spar Rd Extension Intersection	1300	155	10	Northeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
17 100 M SE of Spar Rd and Spar Rd Extension Intersection	1345	155	9	Northeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
18 15 M SE of Fredrick St and Lingan Rd intersection	1400	155	9	Northeast	Upwind	Background	No observations seen to affect sampling integrity
19 100 M SE of Spar Rd and Spar Rd Extension Intersection	1400	155	9	Northeast	Downwind	Machines moving materials	No observations seen to affect sampling integrity
20 100 M SE of Spar Rd and Spar Rd Extension Intersection	1430	155	11	Northeast	Downwind	Machines moving materials	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 15 M SE of Fredrick St and Lingan Rd intersection	1500	155	11	Northeast	Upwind	Background	No observations seen to affect sampling integrity
22 100 M SE of Spar Rd and Spar Rd Extension Intersection	1500	155	17	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
23 100 M SE of Spar Rd and Spar Rd Extension Intersection	1545	155	13	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 15 M SE of Fredrick St and Lingan Rd intersection	1600	155	12	Northeast	Upwind	Background	No observations seen to affect sampling integrity
25 100 M SE of Spar Rd and Spar Rd Extension Intersection	1600	155	16	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
26 100 M SE of Spar Rd and Spar Rd Extension Intersection	1645	155	19	Northeast	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 ($\mu\text{g}/\text{m}^3$)
100 M SE of Spar Rd and Spar Rd Extension Intersection	0800 to 0859	10	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	0900 to 0959	19	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	1000 to 1059	30	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	1100 to 1159	44	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	1200 to 1259	54	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	1300 to 1359	64	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	1400 to 1459	74	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	1500 to 1559	89	990
100 M SE of Spar Rd and Spar Rd Extension Intersection	1600 to 1659	107	990

VOC Monitoring

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