

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1331-01
FROM	Dianne Theriault	SHIFT:	0900 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	2 nd June, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-CO-0075

**SUBJECT: 1st June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, Coke Ovens
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 1st of June, 2009. Nigel MacLean and Dwayne Timmons of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Rain, mainly sunny
- Temperature: approximately 16°C
- Wind Direction: Southwest

Comments *Air monitoring was delayed until 0900 hours due to precipitation, and began at 1100 hours when weather conditions were within instruments specifications. 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 Nigel MacLean 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 – Access Roads, Coke Ovens
1st June, 2009

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
1 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1100	155	10	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
2 115m North of Victoria Rd. and Cape Breton St. intersection	1120	155	28	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1140	155	9	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
4 25m East of Victoria Rd. and Cape Breton St. intersection	1200	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1200	155	7	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1220	155	6	Southwest	Downwind	No activity observed on site	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 25m East of Victoria Rd. and Cape Breton St. intersection	1300	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1300	155	6	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
9 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1345	155	5	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
10 25m East of Victoria Rd. and Cape Breton St. intersection	1400	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1400	155	6	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
12 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1425	155	5	Southwest	Downwind	Grader in operation	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
13 25m East of Victoria Rd. and Cape Breton St. intersection	1500	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1500	155	6	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1530	155	10	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
16 25m East of Victoria Rd. and Cape Breton St. intersection	1600	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1600	155	7	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
18 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1640	155	6	Southwest	Downwind	Grader in operation	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
19 25m East of Victoria Rd. and Cape Breton St. intersection	1700	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1700	155	6	Southwest	Downwind	Grader in operation	No observations seen to affect sampling integrity
21 540m East of Frederick St. and Lingan Rd. intersection (N46° 09.170' W060° 10.187)	1745	155	8	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 ($\mu\text{g}/\text{m}^3$)
540m East of Frederick St. and Lingan Rd. intersection	1100 to 1159	10	990
540m East of Frederick St. and Lingan Rd. intersection	1200 to 1259	17	990
540m East of Frederick St. and Lingan Rd. intersection	1300 to 1359	23	990
540m East of Frederick St. and Lingan Rd. intersection	1400 to 1459	29	990
540m East of Frederick St. and Lingan Rd. intersection	1500 to 1559	37	990
540m East of Frederick St. and Lingan Rd. intersection	1600 to 1659	44	990
540m East of Frederick St. and Lingan Rd. intersection	1700 to 1759	51	990

VOC Monitoring

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