

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-35
FROM	Dianne Theriault	SHIFT:	0630 to 1345
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	1 st June, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-CO-0073

**SUBJECT: 29th May, 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 29th of May, 2009. Jennifer Andrews 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:

- Mainly sunny
- Temperature: approximately 11°C
- Wind Direction: West to Southwest to Southeast to South

Comments: *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity, but was later cancelled at 1300 hours due to no on 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 – Access Roads, Coke Ovens
29th 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 5m Southeast of Spar Rd. and Ferry St. intersection	0700	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
2 10m West of coke ovens brook main gate (N46° 09.143' W060° 09.796)	0700	155	8	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 10m West of coke ovens brook main gate (N46° 09.143' W060° 09.796)	0730	155	7	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 50m Northwest of Cape Breton St. and Victoria Rd. intersection	0800	155	23	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 300m East of Lingan Rd. and Fredrick St. intersection (N46° 09.129' W060° 09.430)	0800	155	7	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 280m East of Lingan Rd. and Fredrick St. intersection (N46° 09.129' W060° 09.435)	0840	155	6	Southeast	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 90m Northeast of Salvation Army on Victoria Rd.	0900	155	5	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 280m East of Lingan Rd. and Fredrick St. intersection (N46° 09.129' W060° 09.435)	0900	155	6	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 280m East of Lingan Rd. and Fredrick St. intersection (N46° 09.129' W060° 09.435)	0920	155	6	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
10 150m East of Vulcan Ave. and Victoria Rd. intersection	1000	155	4	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 280m East of Lingan Rd. and Fredrick St. intersection (N46° 09.129' W060° 09.435)	1000	155	5	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 280m East of Lingan Rd. and Fredrick St. intersection (N46° 09.129' W060° 09.435)	1025	155	5	Southeast	Downwind	No activity observed on site	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
13 10m Southeast of Cape Breton St. and Victoria Rd. intersection	1100	155	7	South	Upwind	Background	No observations seen to affect sampling integrity
14 330m East of Lingan Rd. and Fredrick St. intersection (N46° 09.134' W060° 10.402)	1100	155	5	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 330m East of Lingan Rd. and Fredrick St. intersection (N46° 09.134' W060° 10.402)	1135	155	4	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
16 10m Southeast of Cape Breton St. and Victoria Rd. intersection	1200	155	10	South	Upwind	Background	No observations seen to affect sampling integrity
17 330m East of Lingan Rd. and Fredrick St. intersection (N46° 09.134' W060° 10.402)	1200	155	4	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 330m East of Lingan Rd. and Fredrick St. intersection (N46° 09.134' W060° 10.402)	1225	155	5	South	Downwind	No activity observed on site	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 330m East of Lingan Rd. and Fredrick St. intersection (N46° 09.134' W060° 10.402)	1300	155	6	South	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 ($\mu\text{g}/\text{m}^3$)
10m West of coke ovens brook main gate	0700 to 0759	8	990
300m / 280m East of Lingan Rd. and Fredrick St. intersection	0800 to 0859	15	990
280m East of Lingan Rd. and Fredrick St. intersection	0900 to 0959	21	990
280m East of Lingan Rd. and Fredrick St. intersection	1000 to 1059	26	990
330m East of Lingan Rd. and Fredrick St. intersection	1100 to 1159	31	990
330m East of Lingan Rd. and Fredrick St. intersection	1200 to 1259	36	990
330m East of Lingan Rd. and Fredrick St. intersection	1300 to 1359	41	990

VOC Monitoring

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