

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1244-07
FROM	Dianne Theriault	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	9 th December, 2008	STPA NO.	COCW-0022

**SUBJECT: 8th December, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 8th of December, 2008. Colin MacIsaac 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, snow
- Temperature: approximately 0°C
- Wind Direction: Southwest to West

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. Sampling was put on standby due to snow at 0830, and resumed at 1100. Air monitoring was performed during EarthTech'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 Colin MacIsaac 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 – Coke Ovens Vertical Cutoff Walls
8th December, 2008

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 90m South of Spar Road, Spar Extension intersection	0700	155	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 100m South of Lingan Road and Spar Road intersection	0700	155	8	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
3 100m South of Lingan Road and Spar Road intersection	0720	155	5	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 90m South of Spar Road, Spar Extension intersection	0800	155	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m South of Lingan Road and Spar Road intersection	0800	155	4	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
6 100m South of Lingan Road and Spar Road intersection	0820	155	2	Southwest	Downwind	Machines moving material	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 70m South of Spar Road, Spar Extension intersection	1100	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
8 60m South of Lingan Road and Spar Road intersection	1100	155	6	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 60m South of Lingan Road and Spar Road intersection	1140	155	6	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 70m South of Spar Road, Spar Extension intersection	1200	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
11 60m South of Lingan Road and Spar Road intersection	1200	155	8	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 60m South of Lingan Road and Spar Road intersection	1245	155	8	West	Downwind	Machines moving material	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 70m South of Spar Road, Spar Extension intersection	1300	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
14 60m South of Lingan Road and Spar Road intersection	1300	155	10	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 60m South of Lingan Road and Spar Road intersection	1325	155	8	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 70m South of Spar Road, Spar Extension intersection	1400	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
17 60m South of Lingan Road and Spar Road intersection	1400	155	7	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
18 60m South of Lingan Road and Spar Road intersection	1425	155	8	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 70m South of Spar Road, Spar Extension intersection	1500	155	7	West	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
20 60m South of Lingan Road and Spar Road intersection	1500	155	10	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
21 60m South of Lingan Road and Spar Road intersection	1535	155	8	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
22 70m South of Spar Road, Spar Extension intersection	1600	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
23 60m South of Lingan Road and Spar Road intersection	1600	155	8	West	Downwind	Machines moving material	No observations seen to affect sampling integrity
24 60m South of Lingan Road and Spar Road intersection	1645	155	8	West	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 South of Lingan Road and Spar Road intersection	0700 to 0759	7	990
100m South of Lingan Road and Spar Road intersection	0800 to 0859	10	990
60m South of Lingan Road and Spar Road intersection	1100 to 1159	16	990
60m South of Lingan Road and Spar Road intersection	1200 to 1259	24	990
60m South of Lingan Road and Spar Road intersection	1300 to 1359	33	990
60m South of Lingan Road and Spar Road intersection	1400 to 1459	41	990
60m South of Lingan Road and Spar Road intersection	1500 to 1559	50	990
60m South of Lingan Road and Spar Road intersection	1600 to 1659	58	990

VOC Monitoring

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