

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1234-10
FROM	Dianne Theriault	SHIFT:	0630 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	26 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	COCW-0010

**SUBJECT: 25th November, 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 25th of November, 2008. Tyler Rowe 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 Sunny
- Temperature: approximately 0°C
- Wind Direction: East to West to North

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. 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 Tyler Rowe 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin MacPherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Coke Ovens Vertical Cutoff Walls
25th November, 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 80m Southwest of Spar Road, Lingan Road intersection	0700	155	16	East	Upwind	Background	No observations seen to affect sampling integrity
2 90m Southeast of corner of Spar Road, Spar Road Extension	0700	155	19	East	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 90m Southeast of corner of Spar Road, Spar Road Extension	0745	155	21	East	Downwind	Machines moving material	No observations seen to effect sampling integrity
4 80m Southwest of Spar Road, Lingan Road intersection	0800	155	43	East	Upwind	Background	No observations seen to affect sampling integrity
5 90m Southeast of corner of Spar Road, Spar Road Extension	0800	155	31	East	Downwind	Machines moving material	No observations seen to effect sampling integrity
6 90m Southeast of corner of Spar Road, Spar Road Extension	0830	155	36	East	Downwind	Machines moving material	No observations seen to effect 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 80m Southwest of Spar Road, Lingan Road intersection	0900	155	40	East	Upwind	Background	No observations seen to affect sampling integrity
8 90m Southeast of corner of Spar Road, Spar Road Extension	0900	155	38	East	Downwind	Machines moving material	No observations seen to effect sampling integrity
9 90m Southeast of corner of Spar Road, Spar Road Extension	0920	155	29	East	Downwind	Machines moving material	No observations seen to effect sampling integrity
10 15m West of Victoria road bridge	1000	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
11 90m Southwest of corner of Spar Road, Lingan Road	1000	155	35	West	Downwind	Machines moving material	No observations seen to effect sampling integrity
12 90m Southwest of corner of Spar Road, Lingan Road	1025	155	8	West	Downwind	Machines moving material	No observations seen to effect sampling integrity
13 15m West of Victoria road bridge	1100	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
14 90m Southwest of corner of Spar Road, Lingan Road	1100	155	5	West	Downwind	Machines moving material	No observations seen to effect sampling integrity
15 90m Southwest of corner of Spar Road, Lingan Road	1145	155	6	West	Downwind	Machines moving material	No observations seen to effect sampling integrity
16 15m West of Victoria road bridge	1200	155	5	West	Upwind	Background	No observations seen to affect sampling integrity
17 90m Southwest of corner of Spar Road, Lingan Road	1200	155	7	West	Downwind	Machines moving material	No observations seen to effect sampling integrity
18 90m Southwest of corner of Spar Road, Lingan Road	1245	155	8	West	Downwind	Machines moving material	No observations seen to effect sampling integrity
19 15m West of Victoria road bridge	1300	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
20 90m Southwest of corner of Spar Road, Lingan Road	1300	155	7	West	Downwind	Machines moving material	No observations seen to effect sampling integrity
21 90m Southwest of corner of Spar Road, Lingan Road	1345	155	10	West	Downwind	Machines moving material	No observations seen to effect 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
22 5m East of Curry's Lane fixed station	1400	155	42	North	Upwind	Background	Backyard fire upwind
23 20m East of Victoria Road bridge adjacent to train tracks	1400	155	4	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
24 20m East of Victoria Road bridge adjacent to train tracks	1420	155	4	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
25 5m East of Curry's Lane fixed station	1500	155	47	North	Upwind	Background	Backyard fire upwind
26 20m East of Victoria Road bridge adjacent to train tracks	1500	155	4	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
27 20m East of Victoria Road bridge adjacent to train tracks	1520	155	4	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
28 5m East of Curry's Lane fixed station	1600	155	8	North	Upwind	Background	No observations seen to affect sampling integrity
29 20m East of Victoria Road bridge adjacent to train tracks	1600	155	3	North	Downwind	Excavator operating	No observations seen to effect 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
30 20m East of Victoria Road bridge adjacent to train tracks	1645	155	5	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
31 5m East of Curry's Lane fixed station	1700	155	64	North	Upwind	Background	Backyard fire upwind
32 20m East of Victoria Road bridge adjacent to train tracks	1700	155	6	North	Downwind	Excavator operating	No observations seen to effect 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 ($\mu\text{g}/\text{m}^3$)
90m Southeast of corner of Spar Road, Spar Road Extension	0700 to 0759	20	990
90m Southeast of corner of Spar Road, Spar Road Extension	0800 to 0859	54	990
90m Southeast of corner of Spar Road, Spar Road Extension	0900 to 0959	88	990
90m Southwest of corner of Spar Road, Lingan Road	1000 to 1059	110	990
90m Southwest of corner of Spar Road, Lingan Road	1100 to 1159	116	990
90m Southwest of corner of Spar Road, Lingan Road	1200 to 1259	124	990
90m Southwest of corner of Spar Road, Lingan Road	1300 to 1359	133	990
20m East of Victoria Road bridge adjacent to train tracks	1400 to 1459	137	990
20m East of Victoria Road bridge adjacent to train tracks	1500 to 1559	141	990
20m East of Victoria Road bridge adjacent to train tracks	1600 to 1659	145	990
20m East of Victoria Road bridge adjacent to train tracks	1700 to 1759	151	990

VOC Monitoring

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