

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1234-11
FROM	Dianne Theriault	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	27 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	COCW-0011

**SUBJECT: 26th 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 26th of November, 2008. Colin MacIsaac and Jennifer Andrews of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast with showers developing later in the day
- Temperature: approximately 6°C
- Wind Direction: Southeast

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. Air monitoring was put on standby between 1600 and 1700 due to precipitation.*

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
26th November, 2008

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 80m East of Victoria Bridge	0700	155	7	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 5m South of Spar Road, Spar Road Extension intersection	0700	155	7	Southeast	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 5m South of Spar Road, Spar Road Extension intersection	0715	155	10	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
4 80m East of Victoria Bridge	0800	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 5m South of Spar Road, Spar Road Extension intersection	0800	155	12	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
6 5m South of Spar Road, Spar Road Extension intersection	0845	155	11	Southeast	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 East of Victoria Bridge	0900	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 5m South of Spar Road, Spar Road Extension intersection	0900	155	11	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
9 5m South of Spar Road, Spar Road Extension intersection	0915	155	13	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
10 80m East of Victoria Bridge	1000	155	14	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 5m South of Spar Road, Spar Road Extension intersection	1000	155	14	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
12 5m South of Spar Road, Spar Road Extension intersection	1025	155	18	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
13 80m East of Victoria Bridge	1100	155	12	Southeast	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 5m South of Spar Road, Spar Road Extension intersection	1100	155	15	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
15 5m South of Spar Road, Spar Road Extension intersection	1120	155	14	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
16 80m East of Victoria Bridge	1200	155	14	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 5m South of Spar Road, Spar Road Extension intersection	1200	155	15	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
18 5m South of Spar Road, Spar Road Extension intersection	1240	155	17	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
19 80m East of Victoria Bridge	1300	155	17	Southeast	Upwind	Background	No observations seen to affect sampling integrity
20 5m South of Spar Road, Spar Road Extension intersection	1300	155	18	Southeast	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
21 5m South of Spar Road, Spar Road Extension intersection	1315	155	20	Southeast	Downwind	Machines moving material	No observations seen to effect sampling integrity
22 80m East of Victoria Bridge	1400	155	21	Southeast	Upwind	Background	No observations seen to effect sampling integrity
23 5m South of Spar Road, Spar Road Extension intersection	1400	155	24	Southeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
24 5m South of Spar Road, Spar Road Extension intersection	1415	155	25	Southeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
25 80m East of Victoria Bridge	1500	155	22	Southeast	Upwind	Background	No observations seen to effect sampling integrity
26 5m South of Spar Road, Spar Road Extension intersection	1500	155	24	Southeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
27 5m South of Spar Road, Spar Road Extension intersection	1545	155	27	Southeast	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 ($\mu\text{g}/\text{m}^3$)
5m South of Spar Road, Spar Road Extension intersection	0700 to 0759	9	990
5m South of Spar Road, Spar Road Extension intersection	0800 to 0859	21	990
5m South of Spar Road, Spar Road Extension intersection	0900 to 0959	33	990
5m South of Spar Road, Spar Road Extension intersection	1000 to 1059	49	990
5m South of Spar Road, Spar Road Extension intersection	1100 to 1159	64	990
5m South of Spar Road, Spar Road Extension intersection	1200 to 1259	80	990
5m South of Spar Road, Spar Road Extension intersection	1300 to 1359	99	990
5m South of Spar Road, Spar Road Extension intersection	1400 to 1459	124	990
5m South of Spar Road, Spar Road Extension intersection	1500 to 1559	149	990

VOC Monitoring

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