

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1139-02
FROM	Grant Harrigan	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	15 th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	COB-0040

**SUBJECT: 14th May 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Brook
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 14th of May, 2008. Donald 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:

- Overcast
- Temperature: approximately 5°C
- Wind Direction: Northeast

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 Donald MacIsaac and reviewed by Peter Ibrahim. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, 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 Brook
14th May, 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 30m West of Spar Road Gate	0715	155	16	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 100m Northeast of Coke Oven Brook Security trailer	0715	155	12	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
3 100m Northeast of Coke Oven Brook Security trailer	0730	155	11	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
4 120m Southwest of Spar Road Gate	0815	155	12	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 100m Northeast of Coke Oven Brook Complex	0800	155	12	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
6 100m Northeast of Coke Oven Brook Security trailer	0845	155	11	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
7 120m Southwest of Spar Road Gate	0915	155	12	Northeast	Upwind	Background	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
8 100m Northeast of Coke Oven Brook Security trailer	0905	155	11	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
9 100m Northeast of Coke Oven Brook Security trailer	0945	155	11	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
10 120m Southwest of Spar Road Gate	1000	155	11	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 100m Northeast of Coke Oven Brook Security trailer	1000	155	10	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
12 100m Northeast of Coke Oven Brook Security trailer	1020	155	11	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
13 120m Southwest of Spar Road Gate	1100	155	11	Northeast	Upwind	Background	No observations seen to effect sampling integrity
14 100m Northeast of Coke Oven Brook Security trailer	1100	155	10	Northeast	Downwind	Machines moving materials	No observations seen to effect sampling integrity
15 100m Northeast of Coke Oven Brook Security trailer	1140	155	11	Northeast	Downwind	Machines moving materials	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
16 120m Southwest of Spar Road Gate	1200	155	13	Northeast	Upwind	Background	No observations seen to effect sampling integrity
17 100m Northeast of Coke Oven Brook Security trailer	1200	155	10	Northeast	Downwind	None	High Winds
18 30m Southwest of Coke Oven Bridge 30m North of Teak St	1245	155	8	Northeast	Downwind	Machines moving materials	High Winds
19 30m West of Spar Road Gate	1315	155	9	Northeast	Upwind	Background	High Winds
20 30m Southwest of Coke Oven Bridge 30m North of Teak St	1300	155	7	Northeast	Downwind	Machines moving materials	High Winds
21 30m Southwest of Coke Oven Bridge 30m North of Teak St	1330	155	9	Northeast	Downwind	Machines moving materials	High Winds
22 30m West of Spar Road Gate	1400	155	9	Northeast	Upwind	Background	High Winds
23 30m Southwest of Coke Oven Bridge 30m North of Teak St	1400	155	7	Northeast	Downwind	Machines moving materials	High Winds

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
24 30m Southwest of Coke Oven Bridge 30m North of Teak St	1435	155	7	Northeast	Downwind	Machines moving materials	High Winds
25 30m West of Spar Road Gate	1500	155	8	Northeast	Upwind	Background	High Winds
26 30m Southwest of Coke Oven Bridge 30m North of Teak St	1500	155	8	Northeast	Downwind	Machines moving materials	High Winds
27 30m Southwest of Coke Oven Bridge 30m North of Teak St	1530	155	7	Northeast	Downwind	Machines moving materials	High Winds
28 30m West of Spar Road Gate	1620	155	9	Northeast	Upwind	Background	High Winds
29 30m Southwest of Coke Oven Bridge 30m North of Teak St	1600	155	7	Northeast	Downwind	Machines moving materials	High Winds
30 30m Southwest of Coke Oven Bridge 30m North of Teak St	1645	155	8	Northeast	Downwind	Background	High Winds

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 Northeast of Coke Oven Brook Security trailer	0700 to 0759	12	990
100m Northeast of Coke Oven Brook Security trailer	0800 to 0859	23	990
100m Northeast of Coke Oven Brook Security trailer	0900 to 0959	34	990
100m Northeast of Coke Oven Brook Security trailer	1000 to 1059	45	990
100m Northeast of Coke Oven Brook Security trailer	1100 to 1159	56	990
100m Northeast of Coke Oven Brook Security trailer /30m Southwest of Coke Oven Bridge 30m North of Teak St	1200 to 1259	65	990
30m Southwest of Coke Oven Bridge 30m North of Teak St	1300 to 1359	73	990
30m Southwest of Coke Oven Bridge 30m North of Teak St	1400 to 1459	80	990
30m Southwest of Coke Oven Bridge 30m North of Teak St	1500 to 1559	88	990
30m Southwest of Coke Oven Bridge 30m North of Teak St	1600 to 1659	96	990

VOC Monitoring

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