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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1139-001
FROM	Grant Harrigan	**SHIFT:**	0630 to 1745
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	14th May, 2008		Terry Smith, ALL-TECH
		STPA NO.	**COB-039**

SUBJECT: 13th 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 PM_{10}) results for air monitoring performed on the 13th 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:
- Partly Cloudy
- Temperature: approximately 6°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 PM_{10} were below the established Site Action Level for this parameter of 155 µg/m^3.

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 and Colin MacIsaac. 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 PM_{10} Concentration Results
Sydney Tar Ponds Agency – Coke Ovens Brook
13th May, 2008

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 30m West from Coke Ovens Brook Trailer	0715	155	-4	Northeast	Upwind	Background	High Winds
2 100m Southwest of Gate at Spar Road adjacent to Fence	0715	155	11	Northeast	Downwind	Excavator Moving Material	High Winds
3 100m Southwest of Gate at Spar Road adjacent to Fence	0730	155	11	Northeast	Downwind	Excavator Moving Material	High Winds
4 30m West from Coke Ovens Brook Trailer	0800	155	7	Northeast	Upwind	Background	High Winds
5 100m Southwest of Gate at Spar Road adjacent to Fence	0800	155	12	Northeast	Downwind	Excavator Moving Material	High Winds
6 100m Southwest of Gate at Spar Road adjacent to Fence	0830	155	10	Northeast	Downwind	Excavator Moving Material	High Winds

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
7 30m West from Coke Ovens Brook Trailer	0900	155	-2	Northeast	Upwind	Background	High Winds
8 100m Southwest of Gate at Spar Road adjacent to Fence	0900	155	10	Northeast	Downwind	Excavator Moving Material	High Winds
9 100m Southwest of Gate at Spar Road adjacent to Fence	0920	155	13	Northeast	Downwind	Excavator Moving Material	High Winds
10 30m West from Coke Ovens Brook Trailer	1010	155	-2	Northeast	Upwind	Background	High Winds
11 100m Southwest of Gate at Spar Road adjacent to Fence	1000	155	8	Northeast	Downwind	Excavator Moving Material	High Winds
12 100m Southwest of Gate at Spar Road adjacent to Fence	1030	155	8	Northeast	Downwind	Excavator Moving Material	High Winds
13 30m West from Coke Ovens Brook Trailer	1100	155	-4	Northeast	Upwind	Background	High Winds

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
14 100m Southwest of Gate at Spar Road adjacent to Fence	1100	155	9	Northeast	Downwind	Excavator Moving Material	High Winds
15 100m Southwest of Gate at Spar Road adjacent to Fence	1145	155	12	Northeast	Downwind	Excavator Moving Material	High Winds
16 30m West from Coke Ovens Brook Trailer	1215	155	0	Northeast	Upwind	Background	High Winds
1 100m Southwest of Gate at Spar Road adjacent to Fence	1200	155	10	Northeast	Downwind	Excavator Moving Material	High Winds
18 100m Southwest of Gate at Spar Road adjacent to Fence	1225	155	10	Northeast	Downwind	Excavator Moving Material	High Winds
19 30m West from Coke Ovens Brook Trailer	1300	155	1	Northeast	Upwind	Background	High Winds
20 100m Southwest of Gate at Spar Road adjacent to Fence	1300	155	15	Northeast	Downwind	Excavator Moving Material	High Winds

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
21 100m Southwest of Gate at Spar Road adjacent to Fence	1345	155	13	Northeast	Downwind	Excavator Moving Material	High Winds
22 30m West from Coke Ovens Brook Trailer	1400	155	0	Northeast	Upwind	Background	High Winds
23 100m Southwest of Gate at Spar Road adjacent to Fence	1400	155	12	Northeast	Downwind	Excavator Moving Material	High Winds
24 100m Southwest of Gate at Spar Road adjacent to Fence	1415	155	15	Northeast	Downwind	Excavator Moving Material	High Winds
25 30m West from Coke Ovens Brook Trailer	1530	155	-1	Northeast	Upwind	Background	High Winds
26 100m Southwest of Gate at Spar Road adjacent to Fence	1500	155	16	Northeast	Downwind	Excavator Moving Material	High Winds
27 100m Southwest of Gate at Spar Road adjacent to Fence	1515	155	16	Northeast	Downwind	Excavator Moving Material	High Winds

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
28 30m West from Coke Ovens Brook Trailer	1600	155	0	Northeast	Upwind	Background	High Winds
29 120m North of Schwartz Furniture	1600	155	14	Northeast	Downwind	Excavator Moving Material	High Winds
30 120m North of Schwartz Furniture	1615	155	15	Northeast	Downwind	Excavator Moving Material	High Winds
31 30m West from Coke Ovens Brook Trailer	1700	155	0	Northeast	Upwind	Background	High Winds
30 120m North of Schwartz Furniture	1700	155	15	Northeast	Downwind	None	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 ($\mu g/m^3$)	Dust Budget Exceedance Value ($\mu g/m^3$)
100m Southwest of Gate at Spar Road adjacent to Fence	0700 to 0759	11	990
100m Southwest of Gate at Spar Road adjacent to Fence	0800 to 0859	22	990
100m Southwest of Gate at Spar Road adjacent to Fence	0900 to 0959	34	990
100m Southwest of Gate at Spar Road adjacent to Fence	1000 to 1059	42	990
100m Southwest of Gate at Spar Road adjacent to Fence	1100 to 1159	53	990
100m Southwest of Gate at Spar Road adjacent to Fence	1200 to 1259	63	990
100m Southwest of Gate at Spar Road adjacent to Fence	1300 to 1359	77	990
100m Southwest of Gate at Spar Road adjacent to Fence	1400 to 1459	91	990
100m Southwest of Gate at Spar Road adjacent to Fence	1500 to 1559	107	990
120m North of Schwartz Furniture	1600 to 1659	122	990
120m North of Schwartz Furniture	1700 to 1715	137	990

VOC Monitoring

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