

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1054-03
FROM	Grant Harrigan	SHIFT:	0630 to 1600
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	14 th January, 2008		Terry Smith, ALL-TECH
		STPA NO.	COB-0015

**SUBJECT: 11th January, 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 11th of January, 2008. Colin MacIsaac and Trevor Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:


- Clear in the morning changing to cloud cover in the afternoon.
- Temperature: 1°C
- Wind Direction: Northwest to Northeast

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was Site activity. Air monitoring was performed during Municipal construction activities.*

All downwind and upwind measurements of PM₁₀ were well below the established Site Action Level for this parameter of 155 µg/m³.

This report has been prepared by Grant Harrigan and reviewed by Dianne Theriault. 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:

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 pjlow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@craworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Coke Ovens Brook
11th January, 2008

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Activity Description	Observations that may affect sample
1 15m Northeast of Nova Towing on Vulcan Avenue	0710	155	8	Southwest	Upwind	Background	No observations seen to effect sampling integrity
2 Spar Road outside Coke Ovens Brook gate	0717	155	7	Southwest	Downwind	Excavation of material	No observations seen to effect sampling integrity
3 Spar Road outside Coke Ovens Brook gate	0735	155	9	Northwest	Downwind	Excavation of material	No observations seen to effect sampling integrity
4 5m East of Jonathan Skeet Memorial ball field	0810	155	22	Northwest	Upwind	Background	No observations seen to effect sampling integrity
5 65m South of Spar Road West of landfill	0815	155	11	Northwest	Downwind	No observable activity	No observations seen to effect sampling integrity
6 65m South of Spar Road West of landfill	0832	155	21	Northwest	Downwind	Breaking of rock material, excavation and surveying	No observations seen to effect sampling integrity
7 5m East of Jonathan Skeet Memorial ball field	0910	155	1	Northwest	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	Activity Description	Observations that may affect sample
8 65m South of Spar Road West of landfill	0942	155	12	West	Downwind	Excavation of material and surveying	No observations seen to effect sampling integrity
9 65m South of Spar Road West of landfill	0957	155	9	West	Downwind	Excavation of material and surveying	No observations seen to effect sampling integrity
10 30m West of Metro Sanitation LTD gates on Fredrick Street	1010	155	-2	Northwest	Upwind	Background	No observations seen to effect sampling integrity
11 65m South of Spar Road West of landfill	1018	155	7	West	Downwind	Excavation of material	No observations seen to effect sampling integrity
12 65m South of Spar Road West of landfill	1036	155	10	Northwest	Downwind	Excavation of material	No observations seen to effect sampling integrity
13 30m West of Metro Sanitation LTD gates on Fredrick Street	1110	155	9	Northwest	Upwind	Background	No observations seen to effect sampling integrity
14 65m South of Spar Road West of landfill	1110	155	6	Northwest	Downwind	Excavation of material	No observations seen to effect sampling integrity
15 65m South of Spar Road West of landfill	1125	155	8	North	Downwind	Excavation of 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	Activity Description	Observations that may affect sample
16 30m West of Metro Sanitation LTD gates on Fredrick Street	1210	155	11	Northwest	Upwind	Background	No observations seen to effect sampling integrity
17 65m South of Spar Road West of landfill	1210	155	7	North	Downwind	Excavation of material	No observations seen to effect sampling integrity
18 65m South of Spar Road West of landfill	1225	155	7	North	Downwind	Excavation of material	No observations seen to effect sampling integrity
19 30m West of Metro Sanitation LTD gates on Fredrick Street	1310	155	12	Northwest	Upwind	Background	No observations seen to effect sampling integrity
20 65m South of Spar Road West of landfill	1310	155	8	Northeast	Downwind	Excavation of material	No observations seen to effect sampling integrity
21 65m South of Spar Road West of landfill	1325	155	9	Northeast	Downwind	Excavation of material	No observations seen to effect sampling integrity
22 Spar Road next to Coke Ovens Brook gate	1410	155	38	Northeast	Upwind	Background	Traffic/train went by causing debris to be blown around
23 150m South West of Spar Road East of landfill	1410	155	7	East	Downwind	Excavation of 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	Activity Description	Observations that may affect sample
24 150m South West of Spar Road East of landfill	1425	155	8	East	Downwind	Excavation of material	No observations seen to effect sampling integrity
25 Spar Road next to Coke Ovens Brook gate	1510	155	29	Northeast	Upwind	Background	Traffic causing debris to be blown off road
26 150m South West of Spar Road East of landfill	1510	155	10	Northeast	Downwind	Excavation of material	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 ($\mu\text{g}/\text{m}^3$)
Spar Road outside Coke Ovens Brook gate	0717 to 0750	8	990
65m South of Spar Road West of landfill	0815 to 0847	24	990
65m South of Spar Road West of landfill	0942 to 1012	34	990
65m South of Spar Road West of landfill	1018 to 1051	43	990
65m South of Spar Road West of landfill	1110 to 1140	50	990
65m South of Spar Road West of landfill	1210 to 1240	57	990
65m South of Spar Road West of landfill	1310 to 1340	66	990
150m South West of Spar Road East of landfill	1410 to 1440	74	990
150m South West of Spar Road East of landfill	1510 to 1525	84	990

VOC Monitoring

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

***P.I.D. was used for all samples and was below detection level.**