

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1053-13
FROM	Grant Harrigan	SHIFT:	0630 to 1845
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	17 th January, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0046

**SUBJECT: 16th January, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 16th of January, 2008. Ryan Butts and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities for the Cooling Pond.

Weather conditions on the day of sampling:

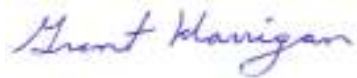
- Overcast with light precipitation
- Temperature: -1.4°C
- Wind Direction: Northeast

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was Site activity. Air monitoring was performed during EarthTech 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 – Cooling Pond
16th 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 60m North of STPA office building	0708	155	∅	Northeast	Upwind	Background	Sampler unable to grab a parcel of air due to high winds
2 150m South of Intercolonial Street fixed monitoring station	0719	155	5	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
3 40m North of Acadian Lines bus terminal	0746	155	9	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
4 60m North of STPA office building	0804	155	3	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 40m North of Acadian Lines bus terminal	0822	155	6	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
6 40m North of Acadian Lines bus terminal	0839	155	6	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
7 60m North of STPA office building	0903	155	1	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	Activity Description	Observations that may affect sample
8 30m North of Acadian Lines bus terminal	0921	155	6	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
9 30m North of Acadian Lines bus terminal	0943	155	6	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
10 60m North of STPA office building	1008	155	1	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 30m North of Acadian Lines bus terminal	1021	155	9	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
12 30m North of Acadian Lines bus terminal	1038	155	11	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
13 60m North of STPA office building	1101	155	1	Northeast	Upwind	Background	No observations seen to effect sampling integrity
14 30m North of Acadian Lines bus terminal	1122	155	9	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
15 30m North of Acadian Lines bus terminal	1138	155	19	Northeast	Downwind	Excavators 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	Activity Description	Observations that may affect sample
16 70m North of STPA office building	1207	155	4	Northeast	Upwind	Background	No observations seen to effect sampling integrity
17 30m Northwest of Acadian Lines bus terminal	1224	155	8	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
18 30m Northwest of Acadian Lines bus terminal	1241	155	7	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
19 70m North of STPA office building	1309	155	3	Northeast	Upwind	Background	No observations seen to effect sampling integrity
20 30m Northwest of Acadian Lines bus terminal	1315	155	8	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
21 30m Northwest of Acadian Lines bus terminal	1335	155	7	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
22 70m North of STPA office building	1407	155	5	Northeast	Upwind	Background	No observations seen to effect sampling integrity
23 30m Northwest of Acadian Lines bus terminal	1423	155	12	Northeast	Downwind	Excavators 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	Activity Description	Observations that may affect sample
24 30m Northwest of Acadian Lines bus terminal	1441	155	12	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
25 70m North of STPA office building	1505	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
26 30m Northwest of Acadian Lines bus terminal	1521	155	15	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
27 30m Northwest of Acadian Lines bus terminal	1537	155	14	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
28 70m North of STPA office building	1600	155	6	Northeast	Upwind	Background	No observations seen to effect sampling integrity
29 60m Southwest of Inglis Street & Terminal Road	1622	155	19	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
30 90m Southwest of Inglis Street & Terminal Road	1640	155	20	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
31 70m North of STPA office building	1702	155	7	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	Activity Description	Observations that may affect sample
32 90m Southwest of Inglis Street & Terminal Road	1718	155	15	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
33 90m Southwest of Inglis Street & Terminal Road	1734	155	15	Northeast	Downwind	Excavators moving material	No observations seen to effect sampling integrity
34 70m North of STPA office building	1800	155	8	Northeast	Upwind	Background	No observations seen to effect sampling integrity
35 90m Southwest of Inglis Street & Terminal Road	1800	155	14	Northeast	Downwind	Excavators moving 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 ($\mu\text{g}/\text{m}^3$)
150m South of Intercolonial Street fixed monitoring station/ 40m North of Acadian Lines bus terminal	0715 to 0756	7	990
40m North of Acadian Lines bus terminal	0815 to 0847	13	990
30m North of Acadian Lines bus terminal	0915 to 0950	19	990
30m North of Acadian Lines bus terminal	1015 to 1048	29	990
30m North of Acadian Lines bus terminal	1115 to 1147	43	990
30m Northwest of Acadian Lines bus terminal	1215 to 1250	51	990
30m Northwest of Acadian Lines bus terminal	1310 to 1345	59	990
30m Northwest of Acadian Lines bus terminal	1416 to 1450	71	990
30m Northwest of Acadian Lines bus terminal	1515 to 1547	86	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
60m Southwest of Inglis Street & Terminal Road/ 90m Southwest of Inglis Street & Terminal Road	1615 to 1648	106	990
90m Southwest of Inglis Street & Terminal Road	1715 to 1745	121	990
90m Southwest of Inglis Street & Terminal Road	1800 to 1815	135	990

VOC Monitoring

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

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