

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1053-01
FROM	Grant Harrigan	SHIFT:	0630 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	4 th January 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0034

**SUBJECT: 3rd 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 3rd of January, 2008. Tyler Rowe and Reggie Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:


- Overcast, flurries
- Temperature: -6°C
- Wind Direction: Northwest

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 well below the established Site Action Level for this parameter of 155 µg/m³.

This report has been prepared by Tyler Rowe and reviewed by Darren Lawless. 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
3rd January, 2008

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Location of Activity	Observations that may affect sample
1 40m East of Ferry Street bridge	0808	155	5	Northwest	Upwind	Background	No observations seen to effect sampling integrity
2 35m Southwest of STPA office	0915	155	5	Northwest	Downwind	Excavator digging	No observations seen to effect sampling integrity
3 40m East of Ferry Street bridge	0924	155	5	Northwest	Upwind	Background	No observations seen to effect sampling integrity
4 35m Southwest of STPA office	0938	155	6	Northwest	Downwind	Excavator digging	No observations seen to effect sampling integrity
5 35m Southwest of STPA office	1016	155	4	Northwest	Downwind	Excavator digging	No observations seen to effect sampling integrity
6 40m East of Ferry Street bridge	1020	155	-5	Northwest	Upwind	Background	Sampler unable to grab parcel of air due to high winds
7 35m Southwest of STPA office	1035	155	5	Northwest	Downwind	Excavator digging	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	Location of Activity	Observations that may affect sample
8 40m East of Ferry Street bridge	1116	155	-8	Northwest	Upwind	Background	Sampler unable to grab parcel of air due to high winds
9 35m Southwest of STPA office	1121	155	5	Northwest	Downwind	Excavator digging	No observations seen to effect sampling integrity
10 35m Southwest of STPA office	1138	155	3	Northwest	Downwind	Machines moving	No observations seen to effect sampling integrity
11 40m East of Ferry Street bridge	1213	155	2	Northwest	Upwind	Background	No observations seen to effect sampling integrity
12 35m Southwest of STPA office	1221	155	3	Northwest	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
13 35m Southwest of STPA office	1242	155	3	Northwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
14 40m East of Ferry Street bridge	1316	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
15 35m Southwest of STPA office	1320	155	3	Northwest	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	Location of Activity	Observations that may affect sample
16 35m Southwest of STPA office	1338	155	3	Northwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
17 40m East of Ferry Street bridge	1414	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
18 35m Southwest of STPA office	1417	155	4	Northwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
19 45m Southwest of STPA office	1435	155	4	Northwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
20 40m East of Ferry Street bridge	1515	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
21 45m Southwest of STPA office	1520	155	5	Northwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
22 45m Southwest of STPA office	1541	155	5	Northwest	Downwind	Machines moving material	No observations seen to effect sampling integrity
23 40m East of Ferry Street bridge	1615	155	2	Northwest	Upwind	Background	No observations seen to effect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Location of Activity	Observations that may affect sample
24 45m Southwest of STPA office	1617	155	4	Northwest	Downwind	Machines 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 ($\mu\text{g}/\text{m}^3$)
35m Southwest of STPA office	0915 to 0953	6	990
35m Southwest of STPA office	1016 to 1050	11	990
35m Southwest of STPA office	1121 to 1153	15	990
35m Southwest of STPA office	1221 to 1257	18	990
35m Southwest of STPA office	1320 to 1353	21	990
35m Southwest of STPA office	1417 to 1450	25	990
35m Southwest of STPA office	1520 to 1556	30	990
35m Southwest of STPA office	1617 to 1632	34	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.**