

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1114-12
FROM	Grant Harrigan	SHIFT:	0630 to 1800
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	15 th April, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0123

**SUBJECT: 14th April, 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 14th of April, 2008. Colin 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 4°C (data unavailable from Environment Canada)
- Wind Direction: West

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.*

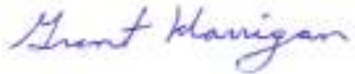
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Colin MacIsaac and reviewed by Grant Harrigan and 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Cooling Pond
14th April, 2008

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 60m Northwest of STPA building	0705	155	6	West	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
2 20m East of Intercolonial Street fixed station	0710	155	5	West	Upwind	Background	No observations seen to effect sampling integrity
3 60m Northwest of STPA building	0740	155	4	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
4 20m East of Intercolonial Street fixed station	0800	155	3	West	Upwind	Background	No observations seen to effect sampling integrity
5 30m Northwest of STPA building	0800	155	2	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
6 30m Southwest of STPA building	0845	155	4	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
7 20m East of Intercolonial Street fixed station	0900	155	2	West	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 30m Southwest of STPA building	0900	155	4	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
9 30m Southwest of STPA building	0925	155	4	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
10 20m East of Intercolonial Street fixed station	1000	155	3	West	Upwind	Background	Zero filter used for calibration
11 30m Southwest of STPA building	1000	155	4	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
12 30m Southwest of STPA building	1030	155	9	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
13 20m East of Intercolonial Street fixed station	1100	155	3	West	Upwind	Background	No observations seen to effect sampling integrity
14 30m Southwest of STPA building	1100	155	7	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
15 30m Southwest of STPA building	1130	155	50	West	Downwind	Excavators, payloaders moving material	Visible dust coming from activity site

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 20m East of Intercolonial Street fixed station	1200	155	2	West	Upwind	Background	No observations seen to effect sampling integrity
17 40m Southwest of STPA building	1200	155	17	West	Downwind	No activity observed on-Site	No observations seen to effect sampling integrity
18 40m Southwest of STPA building	1220	155	11	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
19 30m Southeast of Ferry Street, Walker Street intersection	1300	155	6	West	Upwind	Background	No observations seen to effect sampling integrity
20 40m Southwest of STPA building	1300	155	5	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
21 40m Southwest of STPA building	1335	155	18	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
22 30m Southeast of Ferry Street, Walker Street intersection	1400	155	16	West	Upwind	Background	No observations seen to effect sampling integrity
23 40m Southwest of STPA building	1400	155	25	West	Downwind	Excavators, payloaders 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	Description of Activity	Observations that may affect sample
24 40m Southwest of STPA building	1425	155	9	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
25 30m Southeast of Ferry Street, Walker Street intersection	1500	155	7	West	Upwind	Background	No observations seen to effect sampling integrity
26 40m Southwest of STPA building	1500	155	23	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
27 40m Southwest of STPA building	1530	155	28	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
28 30m Southeast of Ferry Street, Walker Street intersection	1600	155	9	West	Upwind	Background	No observations seen to effect sampling integrity
29 40m Southwest of STPA building	1600	155	65	West	Downwind	Excavators, payloaders moving material	Visible dust coming from activity site
30 40m Southwest of STPA building	1635	155	20	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
31 30m Southeast of Ferry Street, Walker Street intersection	1700	155	8	West	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
32 40m Southwest of STPA building	1700	155	6	West	Downwind	Excavators, payloaders moving material	No observations seen to effect sampling integrity
33 40m Southwest of STPA building	1715	155	11	West	Downwind	Excavators, payloaders 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 (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
60m Northwest of STPA building	0700 to 0759	5	990
30m Northwest of STPA building	0800 to 0859	8	990
30m Southwest of STPA building	0900 to 0959	12	990
30m Southwest of STPA building	1000 to 1059	19	990
30m Southwest of STPA building	1100 to 1159	48	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
40m Southwest of STPA building	1200 to 1259	62	990
40m Southwest of STPA building	1300 to 1359	74	990
40m Southwest of STPA building	1400 to 1459	91	990
40m Southwest of STPA building	1500 to 1559	117	990
40m Southwest of STPA building	1600 to 1659	160	990
40m Southwest of STPA building	1700 to 1759	169	990

VOC Monitoring

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