

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1165-03
FROM	Dianne Theriault	SHIFT:	0730 to 1700
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	18 th July, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0153

**SUBJECT: 17th July, 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 17th of July, 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:

- Mainly sunny
- Temperature: approximately 24°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech's construction activities.*

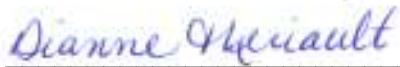
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Donald MacIsaac and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Dianne Theriault, 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
17th July, 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 35m Northeast of Bus Terminal	0800	155	11	SW	UW	Background	No observations seen to effect sampling integrity
2 30m Northwest of Northwest Corner of STPA Building	0800	155	9	SW	DW	No activity observed on-site	No observations seen to effect sampling integrity
3 30m Northwest of Northwest Corner of STPA Building	0825	155	9	SW	DW	No activity observed on-site	No observations seen to effect sampling integrity
4 35m Northeast of Bus Terminal	0900	155	9	SW	UW	Background	No observations seen to effect sampling integrity
5 30m Northwest of Northwest Corner of STPA Building	0900	155	10	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
6 30m West of Northwest Corner of STPA Building	0930	155	9	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
7 35m Northeast of Bus Terminal	1000	155	11	SW	UW	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	Description of Activity	Observations that may affect sample
8 30m West of Northwest Corner of STPA Building	1000	155	19	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
9 30m West of Northwest Corner of STPA Building	1030	155	13	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
10 30m West of Northwest Corner of STPA Building	1100	155	16	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
11 35m Northeast of Bus Terminal	1105	155	10	SW	UW	Background	No observations seen to effect sampling integrity
12 30m West of Northwest Corner of STPA Building	1135	155	22	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
13 35m Northeast of Bus Terminal	1200	155	12	SW	UW	Background	No observations seen to effect sampling integrity
14 30m West of Northwest Corner of STPA Building	1200	155	17	SW	DW	No activity observed on-site	No observations seen to effect sampling integrity
15 30m West of Northwest Corner of STPA Building	1245	155	18	SW	DW	No activity observed on-site	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
16 35m Northeast of Bus Terminal	1300	155	10	SW	UW	Background	No observations seen to effect sampling integrity
17 30m West of Northwest Corner of STPA Building	1300	155	22	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
18 30m West of Northwest Corner of STPA Building	1345	155	15	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
19 35m Northeast of Bus Terminal	1400	155	7	SW	UW	Background	No observations seen to effect sampling integrity
20 30m West of Northwest Corner of STPA Building	1400	155	15	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
21 30m West of Northwest Corner of STPA Building	1415	155	24	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
22 35m Northeast of Bus Terminal	1500	155	10	SW	UW	Background	No observations seen to effect sampling integrity
23 30m West of Northwest Corner of STPA Building	1500	155	24	SW	DW	Excavator Operating	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 30m West of Northwest Corner of STPA Building	1515	155	21	SW	DW	Excavator Operating	No observations seen to effect sampling integrity
25 35m Northeast of Bus Terminal	1600	155	9	SW	UW	Background	No observations seen to effect sampling integrity
26 30m West of Northwest Corner of STPA Building	1600	155	17	SW	DW	No activity observed on-site	No observations seen to effect sampling integrity
27 30m West of Northwest Corner of STPA Building	1615	155	22	SW	DW	No activity observed on-site	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 ($\mu\text{g}/\text{m}^3$)
30m Northwest of Northwest Corner of STPA Building	0800 - 0859	9	990
30m Northwest of Northwest Corner of STPA Building/ 30m West of Northwest Corner of STPA Building	0900- 0959	19	990
30m West of Northwest Corner of STPA Building	1000 - 1059	35	990
30m West of Northwest Corner of STPA Building	1100 - 1159	54	990
30m West of Northwest Corner of STPA Building	1200 - 1259	72	990
30m West of Northwest Corner of STPA Building	1300 - 1359	91	990
30m West of Northwest Corner of STPA Building	1400 - 1459	111	990
30m West of Northwest Corner of STPA Building	1500 - 1559	134	990
30m West of Northwest Corner of STPA Building	1600 - 1659	154	990

VOC Monitoring

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