

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1223-01
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	31 st October, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0155

**SUBJECT: 30th October, 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 30th of October, 2008. Colin MacIsaac, Dianne Theriault and Alison Giovannetti 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 10°C
- Wind Direction: Southwest to West

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 Colin 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
30th October, 2008

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
1 30m East of intersection of Dodd and Pitt	0810	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 50m North of STPA Building	0810	155	9	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
3 50m North of STPA Building	0830	155	9	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
4 30m East of intersection of Dodd and Pitt	0900	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 50m North of STPA Building	0900	155	8	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
6 50m North of STPA Building	0940	155	6	Southwest	Downwind	Excavator moving material	No observations seen to effect sampling integrity
7 100m Southwest of Intercolonial fixed station	1000	155	9	West	Upwind	Background	No observations seen to affect 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 40m East of STPA Building	1000	155	6	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
9 40m East of STPA Building	1045	155	12	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
10 100m Southwest of Intercolonial fixed station	1100	155	8	West	Upwind	Background	No observations seen to effect sampling integrity
11 40m East of STPA Building	1100	155	6	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
12 40m East of STPA Building	1130	155	14	West	Downwind	Excavator moving material	No observations seen to affect sampling integrity
13 100m Southwest of Intercolonial fixed station	1200	155	7	West	Upwind	Background	No observations seen to effect sampling integrity
14 40 East of STPA Building	1200	155	6	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 40m East of STPA Building	1240	155	9	West	Downwind	Excavator moving material	No observations seen to affect 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 100m Southwest of Intercolonial fixed station	1300	155	2	West	Upwind	Background	No observations seen to effect sampling integrity
17 40m East of STPA Building	1300	155	10	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
18 40m East of STPA Building	1330	155	8	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
19 80m South of Ferry Street, Intercolonial Street intersection	1400	155	4	West	Upwind	Background	No observations seen to effect sampling integrity
20 40m East of STPA Building	1400	155	5	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
21 40m East of STPA Building	1445	155	4	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
22 80m South of Ferry Street, Intercolonial Street intersection	1500	155	4	West	Upwind	Background	No observations seen to effect sampling integrity
23 40m East of STPA Building	1500	155	4	West	Downwind	Excavator 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 East of STPA Building	1545	155	6	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
25 80m South of Ferry Street, Intercolonial Street intersection	1600	155	3	West	Upwind	Background	No observations seen to effect sampling integrity
26 40m East of STPA Building	1600	155	5	West	Downwind	Excavator moving material	No observations seen to effect sampling integrity
27 40m East of STPA Building	1630	155	5	West	Downwind	Excavator 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 ($\mu\text{g}/\text{m}^3$)
50m North of STPA Building	0800 to 0859	9	990
50m North of STPA Building	0900 to 0959	16	990
40m East of STPA Building	1000 to 1059	22	990
40m East of STPA Building	1100 to 1159	32	990
40m East of STPA Building	1200 to 1259	40	990
40m East of STPA Building	1300 to 1359	49	990
40m East of STPA Building	1400 to 1459	54	990
40m East of STPA Building	1500 to 1559	59	990
40m East of STPA Building	1600 to 1659	64	990

VOC Monitoring

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