

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1226-05
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	10 th November, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0095

**SUBJECT: 7th November, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 7th of November, 2008. Tyler Rowe 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:

- Cloudy with periods of fog
- Temperature: approximately 15°C
- Wind Direction: West to North

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.*

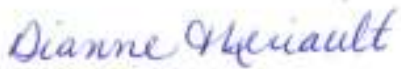
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Alison Giovannetti 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 – South Pond Pilot Study
7th November, 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 80m South of Ferry and Intercolonial Street intersection	0800	155	18	West	Upwind	Background	No observations seen to affect sampling integrity
2 40m East of South Pond main gate	0800	155	15	West	Downwind	Crane loading flatbed	No observations seen to effect sampling integrity
3 40m East of South Pond main gate	0840	155	22	West	Downwind	Crane loading flatbed	No observations seen to effect sampling integrity
4 80m South of Ferry and Intercolonial Street intersection	0900	155	18	West	Upwind	Background	No observations seen to affect sampling integrity
5 40m East of South Pond main gate	0900	155	18	West	Downwind	Crane loading flatbed	No observations seen to effect sampling integrity
6 40m East of South Pond main gate	0915	155	16	West	Downwind	Crane loading flatbed	No observations seen to effect sampling integrity
7 80m South of Ferry and Intercolonial Street intersection	1000	155	18	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 South Pond main gate	1000	155	14	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
9 40m East of South Pond main gate	1025	155	13	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
10 80m South of Ferry and Intercolonial Street intersection	1100	155	19	West	Upwind	Background	No observations seen to affect sampling integrity
11 40m East of South Pond main gate	1100	155	16	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
12 40m East of South Pond main gate	1145	155	29	West	Downwind	Workers using hand tools	No observations seen to effect sampling integrity
13 80m South of Ferry and Intercolonial Street intersection	1200	155	32	West	Upwind	Background	No observations seen to affect sampling integrity
14 40m East of South Pond main gate	1200	155	33	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 40m East of South Pond main gate	1215	155	30	West	Downwind	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 100m West of Ferry and Inglis Street intersection	1300	155	34	North	Upwind	Background	No observations seen to affect sampling integrity
17 30m North East of Dr's Office on Terminal Road	1330	155	44	North	Downwind	Activity not visible from sampling location	No observations seen to effect sampling integrity
18 30m North East of Dr's Office on Terminal Road	1345	155	27	North	Downwind	Activity not visible from sampling location	No observations seen to effect sampling integrity
19 100m West of Ferry and Inglis Street intersection	1400	155	33	North	Upwind	Background	No observations seen to affect sampling integrity
20 30m North East of Dr's Office on Terminal Road	1400	155	33	North	Downwind	Activity not visible from sampling location	No observations seen to effect sampling integrity
21 30m North East of Dr's Office on Terminal Road	1440	155	28	North	Downwind	Activity not visible from sampling location	No observations seen to effect sampling integrity
22 100m West of Ferry and Inglis Street intersection	1500	155	32	North	Upwind	Background	No observations seen to affect sampling integrity
23 30m North East of Dr's Office on Terminal Road	1500	155	17	North	Downwind	Activity not visible from sampling location	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 North East of Dr's Office on Terminal Road	1515	155	20	North	Downwind	Activity not visible from sampling location	No observations seen to effect sampling integrity
25 100m West of Ferry and Inglis Street intersection	1600	155	29	North	Upwind	Background	No observations seen to affect sampling integrity
26 30m North East of Dr's Office on Terminal Road	1600	155	25	North	Downwind	Activity not visible from sampling location	No observations seen to effect sampling integrity
27 30m North East of Dr's Office on Terminal Road	1645	155	25	North	Downwind	Activity not visible from sampling location	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 ($\mu\text{g}/\text{m}^3$)
40m East of South Pond main gate	0800 to 0859	19	990
40m East of South Pond main gate	0900 to 0959	36	990
40m East of South Pond main gate	1000 to 1059	50	990
40m East of South Pond main gate	1100 to 1159	73	990
40m East of South Pond main gate	1200 to 1259	105	990
30m North East of Dr's Office on Terminal Road	1300 to 1359	141	990
30m North East of Dr's Office on Terminal Road	1400 to 1459	172	990
30m North East of Dr's Office on Terminal Road	1500 to 1559	191	990
30m North East of Dr's Office on Terminal Road	1600 to 1659	216	990

VOC Monitoring

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