

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1207-15
FROM	Dianne Theriault	SHIFT:	0630 to 1930
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	22 nd October, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0086

**SUBJECT: 22nd October, 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 22nd of October, 2008. Reg Peters and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast, showers
- Temperature: approximately 7°C
- Wind Direction: East

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. Monitoring was put in stand-by mode between 1030 and 1400 due to precipitation.*

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 Tyler Rowe 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
22nd 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 60m East of South Pond main gate	0700	155	4	East	Upwind	Background	No observations seen to affect sampling integrity
2 Railway property, 30m South of Ferry Street	0700	155	11	East	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 Railway property, 30m South of Ferry Street	0745	155	4	East	Downwind	No activity observed on site	No observations seen to effect sampling integrity
4 60m East of South Pond main gate	0800	155	3	East	Upwind	Background	No observations seen to affect sampling integrity
5 Railway property, 30m South of Ferry Street	0800	155	4	East	Downwind	No activity observed on site	No observations seen to effect sampling integrity
6 Railway property, 30m South of Ferry Street	0840	155	4	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
7 60m East of South Pond main gate	0900	155	4	East	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 Railway property, 30m South of Ferry Street	0900	155	4	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
9 Railway property, 30m South of Ferry Street	0945	155	6	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
10 60m East of South Pond main gate	1000	155	5	East	Upwind	Background	No observations seen to affect sampling integrity
11 Railway property, 30m South of Ferry Street	1000	155	9	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
12 60m East of South Pond main gate	1400	155	11	East	Upwind	Background	No observations seen to affect sampling integrity
13 Railway property, 30m South of Ferry Street	1400	155	11	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
14 Railway property, 30m South of Ferry Street	1420	155	17	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
15 60m East of South Pond main gate	1500	155	17	East	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
16 Railway property, 30m South of Ferry Street	1500	155	17	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
17 Railway property, 30m South of Ferry Street	1515	155	16	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
18 60m East of South Pond main gate	1600	155	9	East	Upwind	Background	No observations seen to affect sampling integrity
19 Railway property, 30m South of Ferry Street	1600	155	16	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
20 Railway property, 30m South of Ferry Street	1645	155	13	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
21 60m East of South Pond main gate	1700	155	9	East	Upwind	Background	No observations seen to affect sampling integrity
22 Railway property, 30m South of Ferry Street	1700	155	21	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
23 Railway property, 30m South of Ferry Street	1740	155	14	East	Downwind	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 60m East of South Pond main gate	1800	155	8	East	Upwind	Background	No observations seen to affect sampling integrity
25 Railway property, 30m South of Ferry Street	1800	155	9	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
26 Railway property, 30m South of Ferry Street	1845	155	9	East	Downwind	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 ($\mu\text{g}/\text{m}^3$)
Railway property, 30m South of Ferry Street	0700 to 0759	8	990
Railway property, 30m South of Ferry Street	0800 to 0859	12	990
Railway property, 30m South of Ferry Street	0900 to 0959	17	990
Railway property, 30m South of Ferry Street	1000 to 1059	26	990
Railway property, 30m South of Ferry Street	1400 to 1459	40	990
Railway property, 30m South of Ferry Street	1500 to 1559	57	990
Railway property, 30m South of Ferry Street	1600 to 1659	72	990
Railway property, 30m South of Ferry Street	1700 to 1759	90	990
Railway property, 30m South of Ferry Street	1800 to 1859	99	990

VOC Monitoring

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