

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1207-01
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	2 nd October, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0072

**SUBJECT: 1st 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 1st of October, 2008. Reg Peters 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:

- Sunny with cloudy periods
- Temperature: approximately 16°C
- Wind Direction: Southwest to Northwest

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.*

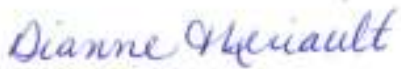
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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
1st 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 2m N of fixed station on Intercolonial St.	0800	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 15m S of Inglis and Sparr Intersection	0800	155	5	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 15m S of Inglis and Sparr Intersection	0830	155	8	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
4 10m N of Ferry St. And Walker St. Intersection	0900	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 100m NW of STPA building	0900	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
6 100m NW of STPA building	0915	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
7 10m N of Ferry St. And Walker St. Intersection	1000	155	3	Northwest	Upwind	Background	No observations seen to affect 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 100m NW of STPA building	1000	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
9 100m NW of STPA building	1030	155	4	Northwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
10 10m N of Ferry St. And Walker St. Intersection	1100	155	6	Northwest	Upwind	Background	No observations seen to effect sampling integrity
11 100m NW of STPA building	1100	155	5	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
12 100m NW of STPA building	1130	155	6	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
13 10m N of Ferry St. And Walker St. Intersection	1200	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
14 100m NW of STPA building	1200	155	6	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 100m NW of STPA building	1235	155	3	Northwest	Downwind	Crane operating	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 10m N of Ferry St. And Walker St. Intersection	1300	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
17 100m NW of STPA building	1300	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
18 100m NW of STPA building	1325	155	3	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
19 10m N of Ferry St. And Walker St. Intersection	1400	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
20 100m NW of STPA building	1400	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
21 100m NW of STPA building	1420	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
22 10m N of Ferry St. And Walker St. Intersection	1500	155	25	Northwest	Upwind	Background	No observations seen to effect sampling integrity
23 100m NW of STPA building	1500	155	4	Northwest	Downwind	Crane 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 100m NW of STPA building	1535	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
25 10m N of Ferry St. And Walker St. Intersection	1600	155	4	Northwest	Upwind	Background	No observations seen to effect sampling integrity
26 100m NW of STPA building	1600	155	4	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
27 100m NW of STPA building	1640	155	7	Northwest	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 ($\mu\text{g}/\text{m}^3$)
15m S of Inglis and Sparr Intersection	0800 to 0859	7	990
100m Northwest of STPA building	0900 to 0959	10	990
100m Northwest of STPA building	1000 to 1059	14	990
100m Northwest of STPA building	1100 to 1159	20	990
100m Northwest of STPA building	1200 to 1259	25	990
100m Northwest of STPA building	1300 to 1359	28	990
100m Northwest of STPA building	1400 to 1459	32	990
100m Northwest of STPA building	1500 to 1559	36	990
100m Northwest of STPA building	1600 to 1659	42	990

VOC Monitoring

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