

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-10
FROM	Dianne Theriault	SHIFT:	0730 to 1815
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	16 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0035

**SUBJECT: 15th October, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Material Processing Facility
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 15th of October, 2008. Kelly Morrison and Nigel McLean 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 12°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 Kelly Morrison 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 – Material Processing Facility
15th 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 15m S of TP2 entrance gate	0810	155	15	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
2 20m SE of Ferry and Intercolonial intersection	0820	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 15m S of TP2 entrance gate	0830	155	15	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 20m N of Ferry and Walker St. Intersection	0900	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
5 40m S of TP2 entrance gate	0900	155	14	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 40m S of TP2 entrance gate	0930	155	14	West	Downwind	Excavators moving material	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
7 20m N of Ferry and Walker St. Intersection	1000	155	14	West	Upwind	Background	No observations seen to affect sampling integrity
8 40m S of TP2 entrance gate	1000	155	16	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
9 40m S of TP2 entrance gate	1025	155	15	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
10 20m N of Ferry and Walker St. Intersection	1100	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
11 40m S of TP2 entrance gate	1100	155	13	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
12 40m S of TP2 entrance gate	1115	155	17	West	Downwind	Excavators moving material	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
13 20m N of Ferry and Walker St. Intersection	1200	155	19	West	Upwind	Background	No observations seen to affect sampling integrity
14 40m S of TP2 entrance gate	1200	155	15	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
15 40m S of TP2 entrance gate	1240	155	18	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
16 20m N of Ferry and Walker St. Intersection	1300	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
17 70m S of TP2 entrance gate	1300	155	11	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 70m S of TP2 entrance gate	1325	155	17	West	Downwind	Excavators 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
19 20m N of Ferry and Walker St. Intersection	1400	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
20 70m S of TP2 entrance gate	1400	155	21	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
21 70m S of TP2 entrance gate	1425	155	10	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
22 20m N of Ferry and Walker St. Intersection	1500	155	22	West	Upwind	Background	No observations seen to affect sampling integrity
23 70m S of TP2 entrance gate	1500	155	7	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
24 70m S of TP2 entrance gate	1520	155	22	West	Downwind	Excavators 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
25 20m N of Ferry and Walker St. Intersection	1600	155	22	West	Upwind	Background	No observations seen to affect sampling integrity
26 70m S of TP2 entrance gate	1620	155	10	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
27 70m S of TP2 entrance gate	1635	155	13	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
28 20m N of Ferry and Walker St. Intersection	1700	155	21	West	Upwind	Background	No observations seen to affect sampling integrity
29 70m S of TP2 entrance gate	1700	155	14	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
30 70m S of TP2 entrance gate	1720	155	10	West	Downwind	Excavators moving material	No observations seen to affect 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 TP2 entrance gate	0800 to 0859	15	990
40m S of TP2 entrance gate	0900 to 0959	29	990
40m S of TP2 entrance gate	1000 to 1059	45	990
40m S of TP2 entrance gate	1100 to 1159	60	990
40m S of TP2 entrance gate	1200 to 1259	77	990
70m S of TP2 entrance gate	1300 to 1359	92	990
70m S of TP2 entrance gate	1400 to 1459	108	990
70m S of TP2 entrance gate	1500 to 1559	123	990
70m S of TP2 entrance gate	1600 to 1659	135	990
70m S of TP2 entrance gate	1700 to 1759	147	990

VOC Monitoring

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