

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-19
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.	TP2-0044

**SUBJECT: 30th 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 30th 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:

- 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 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
30th October, 2008

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
1 15m S of TP2 gate.	0805	155	9	Southwest	Downwind	Excavation	No observations seen to affect sampling integrity
2 25m S of Ferry and Intercolonial St. intersection	0810	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 15m S of TP2 gate.	0830	155	9	Southwest	Downwind	Excavation	No observations seen to affect sampling integrity
4 25m S of Ferry and Intercolonial St. intersection	0900	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 15m S of TP2 gate.	0900	155	10	Southwest	Downwind	Excavation	No observations seen to affect sampling integrity
6 15m S of TP2 gate.	0940	155	7	Southwest	Downwind	Excavation	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 40m N of Ferry St. and Railroad intersection	1000	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
8 30m N of Inglis St. and Sparr Rd intersection	1000	155	9	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 30m N of Inglis St. and Sparr Rd intersection	1025	155	8	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
10 40m N of Ferry St. and Railroad intersection	1100	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
11 30m N of Inglis St. and Sparr Rd intersection	1100	155	7	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
12 30m N of Inglis St. and Sparr Rd intersection	1130	155	6	West	Downwind	Excavation, haul trucks loading 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 40m N of Ferry St. and Railroad intersection	1200	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
14 30m N of Inglis St. and Sparr Rd intersection	1200	155	4	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 30m N of Inglis St. and Sparr Rd intersection	1235	155	4	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
16 40m N of Ferry St. and Railroad intersection	1300	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
17 30m N of Inglis St. and Sparr Rd intersection	1300	155	8	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
18 30m N of Inglis St. and Sparr Rd intersection	1325	155	7	West	Downwind	Excavation, haul trucks loading 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 40m N of Ferry St. and Railroad intersection	1400	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
20 30m N of Inglis St. and Sparr Rd intersection	1400	155	10	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
21 30m N of Inglis St. and Sparr Rd intersection	1435	155	6	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
22 40m N of Ferry St. and Railroad intersection	1500	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
23 30m N of Inglis St. and Sparr Rd intersection	1500	155	6	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
24 30m N of Inglis St. and Sparr Rd intersection	1520	155	7	West	Downwind	Excavation, haul trucks loading 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 40m N of Ferry St. and Railroad intersection	1600	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
26 30m N of Inglis St. and Sparr Rd intersection	1600	155	6	West	Downwind	Excavation, haul trucks loading material	No observations seen to affect sampling integrity
27 30m N of Inglis St. and Sparr Rd intersection	1630	155	6	West	Downwind	Excavation, haul trucks loading 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 entrance to TP2 site.	0800 to 0859	9	990
15m S of entrance to TP2 site.	0900 to 0959	18	990
30m N of Inglis St.and Sparr Rd intersection	1000 to 1059	27	990
30m N of Inglis St.and Sparr Rd intersection	1100 to 1159	34	990
30m N of Inglis St.and Sparr Rd intersection	1200 to 1259	38	990
30m N of Inglis St.and Sparr Rd intersection	1300 to 1359	46	990
30m N of Inglis St.and Sparr Rd intersection	1400 to 1459	54	990
30m N of Inglis St.and Sparr Rd intersection	1500 to 1559	61	990
30m N of Inglis St.and Sparr Rd intersection	1600 to 1659	67	990

VOC Monitoring

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