

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-08
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	14 th October, 2008		Terry Smith, ALL-TECH
		STPA NO.	TP2-0033

**SUBJECT: 10th 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 10th of October, 2008. Alison Giovannetti and Nigel MacLean of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast
- Temperature: approximately 15°C
- Wind Direction: West 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 – Material Processing Facility
10th 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 30m N of Ferry and Inglis Intersection	0810	155	17	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
2 20m N of Ferry and Walker St. Intersection	0810	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
3 30m N of Ferry and Inglis Intersection	0835	155	18	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 20m N of Ferry and Walker St. Intersection	0900	155	16	West	Upwind	Background	No observations seen to affect sampling integrity
5 30m N of Ferry and Inglis Intersection	0900	155	16	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 30m N of Ferry and Inglis Intersection	0920	155	15	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
7 20m N of Ferry and Walker St. Intersection	1000	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
8 30m N of Ferry and Inglis Intersection	1000	155	13	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
9 30m N of Ferry and Inglis Intersection	1020	155	13	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
10 50m E of Midland building along Railway Rd.	1100	155	16	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m N of Ferry and Inglis Intersection	1100	155	12	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
12 30m N of Ferry and Inglis Intersection	1120	155	13	Northwest	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 50m E of Midland building along Railway Rd.	1200	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 Corner of Inglis and Spar Intersection	1200	155	11	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
15 Corner of Inglis and Spar Intersection	1245	155	13	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
16 50m E of Midland building on Railway Rd	1300	155	13	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 Corner of Inglis and Spar Intersection	1300	155	13	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 Corner of Inglis and Spar Intersection	1345	155	10	Northwest	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 50m E of Midland building along Railway Rd.	1400	155	11	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 Spar Rd. 30m E of Water Tower	1400	155	18	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
21 Spar Rd. 30m E of Water Tower	1420	155	24	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
22 50m E of Midland building along Railway Rd.	1500	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 Spar Rd. 30m E of Water Tower	1500	155	14	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
24 Spar Rd. 30m E of Water Tower	1525	155	37	Northwest	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 50m E of Midland Building on Railway Rd.	1600	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 Spar Rd. 30m E of Water Tower	1600	155	32	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
27 Spar Rd. 30m E of Water Tower	1630	155	30	Northwest	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 ($\mu\text{g}/\text{m}^3$)
30m N of Inglis and Spar Intersection	0800 to 0859	18	990
30m N of Inglis and Spar Intersection	0900 to 0959	34	990
30m N of Inglis and Spar Intersection	1000 to 1059	47	990
30m N of Inglis and Spar Intersection	1100 to 1159	60	990
Corner of Inglis and Spar Intersection	1200 to 1259	72	990
Corner of Inglis and Spar Intersection	1300 to 1359	83	990
Corner of Inglis and Spar Intersection	1400 to 1459	104	990
Spar Rd 30m E of Water Tower	1500 to 1559	129	990
Spar Rd 30m E of Water Tower	1600 to 1659	160	990

VOC Monitoring

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