

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1208-07
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	10 th October, 2008	STPA NO.	TP2-0032

**SUBJECT: 9th 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 9th of October, 2008. Alison Giovannetti and Colin MacIassac, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, sunny periods, shower late in the day
- Temperature: approximately 10°C
- Wind Direction: Southeast / Southwest

Comments: *ALL-TECH was on-Site at 0730 and sampling began at 0800. 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 Kelly Morrison. 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
9th 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 70m NE of Midland building Railway fence line	0800	155	10	East	Downwind	Excavators moving material	No observations seen to affect sampling integrity
2 30m N of Ferry and Inglis Intersection	0830	155	18	East	Upwind	Background	No observations seen to affect sampling integrity
3 70m NE of Midland building Railway fence line	0845	155	13	East	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 15m SE of Ferry and Walker St. Intersection (rockpile)	0900	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 160m N of Inglis/Ferry St. Intersection	0900	155	14	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 160m N of Inglis/Ferry St. Intersection	0945	155	13	Southwest	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 15m SE of Ferry and Walker St. Intersection (rockpile)	1000	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 160m N of Inglis/Ferry St. Intersection	1000	155	11	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
9 160m N of Inglis/Ferry St. Intersection	1015	155	13	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
10 15m SE of Ferry and Walker St. Intersection (rockpile)	1100	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 160m N of Inglis/Ferry St. Intersection	1100	155	15	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
13 160m N of Inglis/Ferry St. Intersection	1120	155	10	Southwest	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 15m SE of Ferry and Walker St. Intersection (rockpile)	1200	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 140m N of Inglis and Ferry Intersection	1200	155	15	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
15 140m N of Inglis and Ferry Intersection	1245	155	12	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
16 15m SE of Ferry and Walker St. Intersection (rockpile)	1300	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 140m N of Inglis and Ferry Intersection	1300	155	15	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 140m N of Inglis and Ferry Intersection	1345	155	14	Southwest	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 15m SE of Ferry and Walker St. Intersection (rockpile)	1400	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 140m N of Inglis and Ferry Intersection	1400	155	33	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
21 140m N of Inglis and Ferry Intersection	1430	155	12	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
22 15m SE of Ferry and Walker St. Intersection (rockpile)	1500	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 140m N of Inglis and Ferry Intersection	1500	155	13	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
24 140m N of Inglis and Ferry Intersection	1515	155	13	Southwest	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 15m SE of Ferry and Walker St. Intersection (rockpile)	1600	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 140m N of Inglis and Ferry Intersection	1600	155	14	Southwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
27 140m N of Inglis and Ferry Intersection	1630	155	12	Southwest	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 ($\mu\text{g}/\text{m}^3$)
70m NE of Midland building on Railway fence line	0800 to 0859	12	990
70m NE of Midland building on Railway fence line	0900 to 0959	26	990
160m N of Inglis and Ferry Intersection	1000 to 1059	38	990
160m N of Inglis and Ferry Intersection	1100 to 1159	51	990
140m N of Inglis and Ferry Intersection	1200 to 1259	65	990
140m N of Inglis and Ferry Intersection	1300 to 1359	80	990
140m N of Inglis and Ferry Intersection	1400 to 1459	103	990
140m N of Inglis and Ferry Intersection	1500 to 1559	116	990
140m N of Inglis and Ferry Intersection	1600 to 1659	129	990

VOC Monitoring

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