

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1291-01
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	2 nd April, 2009	STPA NO.	TP2-0135

**SUBJECT: 1st April, 2009, 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 1st of April, 2009. Shaun Dove 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:

- Mainly sunny
- Temperature: approximately 2°C
- Wind Direction: North / East

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. Air monitoring was performed during AECOM'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
1st April, 2009

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 10m Northwest of TP2 driveway on Inglis St.	0800	155	17	North	Upwind	Background	No observations seen to affect sampling integrity
2 200m West of Terminal Rd. and Inglis St. Intersection	0800	155	23	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
3 200m West of Terminal Rd. and Inglis St. Intersection	0830	155	21	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
4 10m Northwest of TP2 driveway on Inglis St.	0900	155	21	North	Upwind	Background	No observations seen to affect sampling integrity
5 200m West of Terminal Rd. and Inglis St. Intersection	0900	155	24	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
6 200m West of Terminal Rd. and Inglis St. Intersection	0920	155	21	North	Downwind	No activity visible from sampling location	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 10m Northwest of TP2 driveway on Inglis St.	1000	155	14	North	Upwind	Background	No observations seen to affect sampling integrity
8 200m West of Terminal Rd. and Inglis St. Intersection	1000	155	12	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
9 200m West of Terminal Rd. and Inglis St. Intersection	1030	155	13	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
10 10m Northwest of TP2 driveway on Inglis St.	1100	155	12	North	Upwind	Background	No observations seen to affect sampling integrity
11 200m West of Terminal Rd. and Inglis St. Intersection	1100	155	15	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
12 200m West of Terminal Rd. and Inglis St. Intersection	1120	155	13	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
13 10m Northwest of TP2 driveway on Inglis St.	1200	155	12	North	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
14 200m West of Terminal Rd. and Inglis St. Intersection	1200	155	17	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
15 200m West of Terminal Rd. and Inglis St. Intersection	1230	155	16	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
16 10m Northwest of TP2 driveway on Inglis St.	1300	155	14	North	Upwind	Background	No observations seen to affect sampling integrity
17 200m West of Terminal Rd. and Inglis St. Intersection	1300	155	16	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
18 200m West of Terminal Rd. and Inglis St. Intersection	1330	155	17	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
19 10m Northwest of TP2 driveway on Inglis St.	1400	155	19	North	Upwind	Background	No observations seen to affect sampling integrity
20 200m West of Terminal Rd. and Inglis St. Intersection	1400	155	16	North	Downwind	No activity visible from sampling location	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
21 200m West of Terminal Rd. and Inglis St. Intersection	1420	155	17	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
22 10m Northwest of TP2 driveway on Inglis St.	1500	155	17	North	Upwind	Background	No observations seen to affect sampling integrity
23 200m West of Terminal Rd. and Inglis St. Intersection	1500	155	18	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
24 200m West of Terminal Rd. and Inglis St. Intersection	1540	155	17	North	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
25 50m NE of STPA building	1600	155	15	East	Upwind	Background	No observations seen to affect sampling integrity
26 200m West of Terminal Rd. and Inglis St. Intersection	1600	155	16	East	Downwind	No activity visible from sampling location	No observations seen to affect sampling integrity
27 100m Southwest of Ferry St. Bridge	1640	155	15	East	Downwind	No activity visible from sampling location	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 ($\mu\text{g}/\text{m}^3$)
200m West of Terminal Rd. and Inglis St. Intersection	0800 to 0859	22	990
200m West of Terminal Rd. and Inglis St. Intersection	0900 to 0959	45	990
200m West of Terminal Rd. and Inglis St. Intersection	1000 to 1059	58	990
200m West of Terminal Rd. and Inglis St. Intersection	1100 to 1159	72	990
200m West of Terminal Rd. and Inglis St. Intersection	1200 to 1259	89	990
200m West of Terminal Rd. and Inglis St. Intersection	1300 to 1359	106	990
200m West of Terminal Rd. and Inglis St. Intersection	1400 to 1459	123	990
200m West of Terminal Rd. and Inglis St. Intersection	1500 to 1559	141	990
100m Southwest of Ferry St. Bridge	1600 to 1659	157	990

VOC Monitoring

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