

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1279-07
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	12 th March, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP2-0123

**SUBJECT: 12th March, 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 12th of March, 2009. Tyler Rowe 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:

- Cloudy with flurries and rain showers
- Temperature: approximately -1°C
- Wind Direction: Northwest

Comments: *ALL-TECH was on-Site at 0730 hours and sampling was delayed due to precipitation, and began as soon as weather conditions were within instrument specifications. 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
12th March, 2009

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 Inglis St., 15m North of Spar Rd.	0915	155	8	Northwest	Downwind	Pickup operating	No observations seen to affect sampling integrity
2 200m North of Ferry St. and railway intersection	0920	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
3 Inglis St., 15m North of Spar Rd.	0945	155	7	Northwest	Downwind	Forklift operating	No observations seen to affect sampling integrity
4 200m North of Ferry St. and railway intersection	1000	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis St., 15m North of Spar Rd.	1000	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 Inglis St., 15m North of Spar Rd.	1020	155	5	Northwest	Downwind	Workers using hand tools	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 200m North of Ferry St. and railway intersection	1100	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 Inglis St., 15m North of Spar Rd.	1100	155	3	Northwest	Downwind	Forklift operating	No observations seen to affect sampling integrity
9 Inglis St., 15m North of Spar Rd.	1130	155	3	Northwest	Downwind	Forklift operating	No observations seen to affect sampling integrity
10 200m North of Ferry St. and railway intersection	1200	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 Inglis St., 15m North of Spar Rd.	1200	155	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 Inglis St., 15m North of Spar Rd.	1220	155	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
13 200m North of Ferry St. and railway intersection	1300	155	6	Northwest	Upwind	Background	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
14 Inglis St., 15m North of Spar Rd.	1300	155	3	Northwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
5 Inglis St., 15m North of Spar Rd.	1315	155	4	Northwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
16 200m North of Ferry St. and railway intersection	1400	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 Inglis St., 15m North of Spar Rd.	1400	155	4	Northwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
18 Inglis St., 15m North of Spar Rd.	1440	155	4	Northwest	Downwind	Workers using hand tools	No observations seen to affect sampling integrity
19 200m North of Ferry St. and railway intersection	1500	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 Inglis St., 15m North of Spar Rd.	1500	155	4	Northwest	Downwind	No activity observed on site	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 Inglis St., 15m North of Spar Rd.	1535	155	3	Northwest	Downwind	Forklift operating	No observations seen to affect sampling integrity
22 200m North of Ferry St. and railway intersection	1600	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 Inglis St., 15m North of Spar Rd.	1600	155	3	Northwest	Downwind	Forklift operating	No observations seen to affect sampling integrity
24 Inglis St., 15m North of Spar Rd.	1645	155	3	Northwest	Downwind	No activity observed on site	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 ($\mu\text{g}/\text{m}^3$)
Inglis St., 15m North of Spar Rd.	0900 to 0959	8	990
Inglis St., 15m North of Spar Rd.	1000 to 1059	14	990
Inglis St., 15m North of Spar Rd.	1100 to 1159	17	990
Inglis St., 15m North of Spar Rd.	1200 to 1259	20	990
Inglis St., 15m North of Spar Rd.	1300 to 1359	24	990
Inglis St., 15m North of Spar Rd.	1400 to 1459	28	990
Inglis St., 15m North of Spar Rd.	1500 to 1559	32	990
Inglis St., 15m North of Spar Rd.	1600 to 1659	35	990

VOC Monitoring

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