

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1288-04
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	23 rd March, 2009	STPA NO.	TP6D-0004

**SUBJECT: 20th March, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 20th of March, 2009. Reg Peters and Shaun Dove, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy
- Temperature: approximately -3°C
- Wind Direction: Northwest to North

Comments: *ALL-TECH was on-Site at 0630 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 Reg Peters 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pilow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

**Real-time Airborne PM₁₀ Concentration Results
 Sydney Tar Ponds Agency – Access Roads
 20th March, 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 50m East of Railway office	0700	155	13	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 50m East of Ferry Street Bridge	0700	155	21	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 50m East of Ferry Street Bridge	0725	155	26	Northwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 50m East of Railway office	0800	155	14	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 50m East of Ferry Street Bridge	0800	155	58	Northwest	Downwind	Machines moving material	Dust from site traffic
6 50m East of Ferry Street Bridge	0830	155	22	Northwest	Downwind	Machines 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 50m East of Railway office	0900	155	23	North	Upwind	Background	No observations seen to affect sampling integrity
8 5m East of Ferry Street Bridge	0900	155	28	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 5m East of Ferry Street Bridge	0945	155	16	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 50m East of Railway office	1000	155	13	North	Upwind	Background	No observations seen to affect sampling integrity
11 5m East of Ferry Street Bridge	1000	155	12	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 5m East of Ferry Street Bridge	1035	155	11	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 50m East of Railway office	1100	155	7	North	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 5m East of Ferry Street Bridge	1100	155	8	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 5m East of Ferry Street Bridge	1145	155	7	North	Downwind	Machines moving materials.	No observations seen to affect sampling integrity
16 50m East of Railway office	1200	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
17 5m East of Ferry Street Bridge	1200	155	6	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 5m East of Ferry Street Bridge	1230	155	6	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 50m East of Railway office	1300	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
20 5m East of Ferry Street Bridge	1300	155	6	North	Downwind	Machines 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
21 5m East of Ferry Street Bridge	1340	155	7	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
22 50m East of Railway office	1400	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
23 5m East of Ferry Street Bridge	1400	155	6	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
24 5m East of Ferry Street Bridge	1440	155	6	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
25 50m East of Railway office	1500	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
26 5m East of Ferry Street Bridge	1500	155	9	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
27 5m East of Ferry Street Bridge	1540	155	8	North	Downwind	Machines 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
28 50m East of Railway office	1600	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
29 5m East of Ferry Street Bridge	1600	155	12	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
30 5m East of Ferry Street Bridge	1615	155	9	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
31 50m East of Railway office	1700	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
32 5m East of Ferry Street Bridge	1700	155	9	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
33 5m East of Ferry Street Bridge	1745	155	8	North	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 ($\mu\text{g}/\text{m}^3$)
50m East of Ferry Street Bridge	0700 to 0759	24	990
50m East of Ferry Street Bridge	0800 to 0859	64	990
5m East of Ferry Street Bridge	0900 to 0959	86	990
5m East of Ferry Street Bridge	1000 to 1059	98	990
5m East of Ferry Street Bridge	1100 to 1159	106	990
5m East of Ferry Street Bridge	1200 to 1259	112	990
5m East of Ferry Street Bridge	1300 to 1359	119	990
5m East of Ferry Street Bridge	1400 to 1459	125	990
5m East of Ferry Street Bridge	1500 to 1559	134	990
5m East of Ferry Street Bridge	1600 to 1659	145	990
5m East of Ferry Street Bridge	1700 to 1759	154	990

VOC Monitoring

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