

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1331-20
FROM	Dianne Theriault	SHIFT:	0730 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	18 th June, 2009	STPA NO.	TP6D-CP-0094

**SUBJECT: 17th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 17th of June, 2009. Tyler Rowe and Dwayne Timmons 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 21°C
- Wind Direction: Southwest to West to Southwest to South

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.*

Two exceedances of the 15-minute Site Action Level of 180 µg/m³ were measured at the downwind location; the first at 1000 hours was measured at 206 µg/m³ and the second at 1020 hours was measured at 455 µg/m³. They were both attributed to heavy dust from the site activity. AECOM was immediately informed of these exceedances.

Using the Concentration Approach for the 4 hour averaging period, it was determined that the downwind dust concentration levels exceeded 85 µg/m³, with a concentration measured at 105 µg/m³. Construction activities were halted for a period of time and later resumed when the appropriate dust control measures were put in place.

All downwind and upwind measurements of Total Volatile Organic Compounds (TVOC) were below the established Site Action Level for this parameter of 8 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 Dwayne Timmons 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, Cooling Pond
17th June, 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 Dodd St., 30m North of Prince St. (N46°08.386 W060°11.353')	0800	180	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 50m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.683' W060°11.009')	0800	180	5	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 50m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.683' W060°11.009')	0840	180	38	Southwest	Downwind	Excavator and dump trucks operating	No observations seen to affect sampling integrity
4 Dodd St., 30m North of Prince St. (N46°08.386 W060°11.353')	0900	180	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 50m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.683' W060°11.009')	0900	180	103	Southwest	Downwind	Excavator and dump trucks operating	Excavator operating

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
6 50m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.683' W060°11.009')	0920	180	93	Southwest	Downwind	Excavator and dump trucks operating	Excavator operating
7 Dodd St., 30m North of Prince St. (N46°08.386 W060°11.353')	0940	180	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 50m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.683' W060°11.009')	0940	180	41	Southwest	Downwind	Excavator and dump trucks operating	No observations seen to affect sampling integrity
9 Dodd St., 30m North of Prince St. (N46°08.386 W060°11.353')	1000	180	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
10 35m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.669' W060°11.003')	1000	180	206	Southwest	Downwind	Excavator operating	Excavator operating
11 Dodd St., 30m North of Prince St. (N46°08.386 W060°11.353')	1020	180	15	Southwest	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
12 35m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.669' W060°11.003')	1020	180	455	Southwest	Downwind	Excavator operating	Excavator operating
13 Dodd St., 30m North of Prince St. (N46°08.386 W060°11.353')	1040	180	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 35m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.669' W060°11.003')	1040	180	25	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 Dodd St., 30m North of Prince St. (N46°08.386 W060°11.353')	1100	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
16 35m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.669' W060°11.003')	1100	180	60	Southwest	Downwind	Excavator operating	No observations seen to affect sampling integrity
17 35m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.669' W060°11.003')	1115	180	29	Southwest	Downwind	Excavator operating	No observations seen to affect sampling integrity

Sydney Tar Ponds Agency - Ambient Air Monitoring Program
 Real-time Air Monitoring Daily Report

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
18 40m East of Dodd St. and Prince St. intersection (N46°08.421' W060°11.359')	1200	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
19 35m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.669' W060°11.003')	1200	180	69	Southwest	Downwind	Excavator operating	No observations seen to affect sampling integrity
20 35m Northeast of Cape Breton St. and Inglis St. intersection (N46°08.669' W060°11.003')	1215	180	29	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
21 100m Southeast of Dodd St. and Ritchie St. intersection (N46°08.449' W060°11.367')	1300	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
22 5m North of Cape Breton St. and Inglis St. intersection (N46°08.663' W060°10.990')	1300	180	7	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
23 15m North of Cape Breton St. and Inglis St. intersection (N46°08.668' W060°10.991')	1345	180	7	Southwest	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
24 Dodd St., 30m North of Prince St. (N46°08.386' W060°11.353')	1400	180	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
25 50m North of Cape Breton St. and Inglis St. intersection (N46°08.692' W060°11.013')	1400	180	41	Southwest	Downwind	Excavator operating	No observations seen to affect sampling integrity
26 50m North of Cape Breton St. and Inglis St. intersection (N46°08.692' W060°11.013')	1445	180	11	Southwest	Downwind	Excavator operating	No observations seen to affect sampling integrity
27 40m Northeast of Acadian Lines (N46°08.539' W060°11.182')	1500	180	5	South	Upwind	Background	No observations seen to affect sampling integrity
28 45m North of Cape Breton St. and Inglis St. intersection (N46°08.690' W060°11.012')	1500	180	16	South	Downwind	Excavator operating	No observations seen to affect sampling integrity
29 45m North of Cape Breton St. and Inglis St. intersection (N46°08.690' W060°11.012')	1530	180	21	South	Downwind	Excavator operating	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
30 40m Northeast of Acadian Lines (N46°08.539' W060°11.182')	1600	180	5	South	Upwind	Background	No observations seen to affect sampling integrity
31 45m North of Cape Breton St. and Inglis St. intersection (N46°08.690' W060°11.012')	1600	180	13	South	Downwind	Excavator operating	No observations seen to affect sampling integrity
32 45m North of Cape Breton St. and Inglis St. intersection (N46°08.690' W060°11.012')	1630	180	11	South	Downwind	Excavator operating	No observations seen to affect sampling integrity
33 40m Northeast of Acadian Lines (N46°08.539' W060°11.182')	1700	180	5	South	Upwind	Background	No observations seen to affect sampling integrity
34 45m North of Cape Breton St. and Inglis St. intersection (N46°08.690' W060°11.012')	1700	180	17	South	Downwind	Excavator and dump trucks operating	No observations seen to affect sampling integrity
35 45m North of Cape Breton St. and Inglis St. intersection (N46°08.690' W060°11.012')	1745	180	5	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Summary of Downwind PM₁₀ Action Levels

Average PM ₁₀ Concentration (µg/m ³)	Averaging Period (Hours)	Downwind Action Level (µg/m ³)
22	1	125
105	4	85
70	8	70

VOC Monitoring

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