

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1331-26
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0700 to 1815
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	25 <sup>th</sup> June, 2009		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP6D-CP-0100</b>

**SUBJECT: 24<sup>th</sup> June, 2009, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Access Roads, Cooling Pond  
FINAL REPORT**

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Attached is a summary of Real-time particulate (as PM<sub>10</sub>) results for air monitoring performed on the 24<sup>th</sup> of June, 2009. Donald MacIsaac 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:

- Cloudy with showers and sunny periods
- Temperature: approximately 22°C
- Wind Direction: Southwest

**Comments:** *Air monitoring was delayed until 0900 hours due to high humidity, and began when weather conditions were within instrument specifications. Air monitoring was later put on standby at 1045 hours due to precipitation, and resumed at 1400 hours when weather conditions were within instrument specifications. Air monitoring was performed during AECOM's construction activities.*

All downwind and upwind measurements of PM<sub>10</sub> were below the established Site Action Level for this parameter of 180 µg/m<sup>3</sup>.

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 Dwayne Timmons and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



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Dianne Theriault, B.Tech  
Environmental Technologist  
**ALL-TECH Environmental Services Cape Breton Ltd.**

Copied via e-mail:

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**Real-time Airborne PM<sub>10</sub> Concentration Results**  
**Sydney Tar Ponds Agency – Access Roads, Cooling Pond**  
**24<sup>th</sup> June, 2009**

Sample No. & Air Monitoring Location	Time of Day	PM <sub>10</sub> Action Level (µg/m <sup>3</sup> )	Average Result (µg/m <sup>3</sup> )	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 40m North of Acadian Lines (N46°08.521' W060°11.155')	0900	180	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 35m Southwest of STPA building (N46°08.690' W060°11.020')	0900	180	13	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
3 35m Southwest of STPA building (N46°08.690' W060°11.020')	0925	180	10	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
4 40m North of Acadian Lines (N46°08.521' W060°11.155')	1000	180	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 35m Southwest of STPA building (N46°08.690' W060°11.020')	1000	180	12	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
6 35m Southwest of STPA building (N46°08.690' W060°11.020')	1030	180	13	Southwest	Downwind	Trucks, operating	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM <sub>10</sub> Action Level (µg/m <sup>3</sup> )	Average Result (µg/m <sup>3</sup> )	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
7 40m North of Acadian Lines (N46°08.521' W060°11.155')	1400	180	34	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 35m Southwest of STPA building (N46°08.690' W060°11.020')	1400	180	18	Southwest	Downwind	Trucks operating	No observations seen to affect sampling integrity
9 35m Southwest of STPA building (N46°08.690' W060°11.020')	1435	180	10	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
10 50m North of STPA building (46°08.765' W060°11.056')	1500	180	13	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
11 50m North of STPA building (46°08.765' W060°11.056')	1515	180	12	Southwest	Downwind	Trucks operating	No observations seen to affect sampling integrity
12 40m North of Acadian Lines (N46°08.521' W060°11.155')	1540	180	9	Southwest	Upwind	Background	Late sample due to equipment malfunction
13 40m North of Acadian Lines (N46°08.521' W060°11.155')	1600	180	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM <sub>10</sub> Action Level (µg/m <sup>3</sup> )	Average Result (µg/m <sup>3</sup> )	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
14 50m North of STPA building (46°08.765' W060°11.056')	1600	180	16	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
15 50m North of STPA building (46°08.765' W060°11.056')	1640	180	11	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
16 40m North of Acadian Lines (N46°08.521' W060°11.155')	1700	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 50m North of STPA building (46°08.765' W060°11.056')	1700	180	10	Southwest	Downwind	Trucks, excavator operating	No observations seen to affect sampling integrity
18 50m North of STPA building (46°08.765' W060°11.056')	1730	180	10	Southwest	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 PM<sub>10</sub> Action Levels

Average PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )	Averaging Period (Hours)	Downwind Action Level (µg/m <sup>3</sup> )
12	1	125
23	4	85
21	8	70

### VOC Monitoring

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