

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1353-01
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0900 to 1830
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	6 <sup>th</sup> July, 2009		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP6D-SP-0108</b>

**SUBJECT: 3<sup>rd</sup> July, 2009 Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Access Roads, South 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 3<sup>rd</sup> of July, 2009. Donald MacIsaac and Dave Reeves 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 19°C
- Wind Direction: Southeast

**Comments:** *Air monitoring was delayed until 0900 hours due to high humidity, and began at 1100 hours when weather was 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 Donald MacIsaac 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:

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

**Real-time Airborne PM<sub>10</sub> Concentration Results**  
**Sydney Tar Ponds Agency – Access Roads, South Pond**  
**3<sup>rd</sup> July, 2009**

<b>Sample No. &amp; Air Monitoring Location</b>	<b>Time of Day</b>	<b>PM<sub>10</sub> Action Level (µg/m<sup>3</sup>)</b>	<b>Average Result (µg/m<sup>3</sup>)</b>	<b>Wind Direction</b>	<b>Relative Position</b>	<b>Description of Activity</b>	<b>Observations that may affect sample</b>
1 40m North of old train station (N 46°08.499' W 060°11.373')	1100	180	13	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
2 15m North of Terminal Rd., Inglis St. intersection (N 46°08.563' W 060°11.010')	1105	180	19	Southeast	Upwind	Background	No observations seen to affect sampling integrity
3 40m North of old train station (N 46°08.499' W 060°11.373')	1135	180	15	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
4 15m North of Terminal Rd., Inglis St. intersection (N 46°08.563' W 060°11.010')	1200	180	25	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 40m North of old train station (N 46°08.499' W 060°11.373')	1200	180	18	Southeast	Downwind	No activity observed on site	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
6 40m North of old train station (N 46°08.499' W 060°11.373')	1220	180	22	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
7 35m Northeast of Terminal Rd., Prince St. Intersection (N 46°08.402' W 060°11.272')	1300	180	16	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 40m North of old train station (N 46°08.499' W 060°11.373')	1300	180	26	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
9 40m North of old train station (N 46°08.499' W 060°11.373')	1335	180	26	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
10 35m Northeast of Terminal Rd., Prince St. Intersection (N 46°08.402' W 060°11.272')	1400	180	13	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 40m North of old train station (N 46°08.499' W 060°11.373')	1400	180	24	Southeast	Downwind	Trucks, roller, dozer 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
12 40m North of old train station (N 46°08.499' W 060°11.373')	1415	180	26	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
13 35m Northeast of Terminal Rd., Prince St. Intersection (N 46°08.402' W 060°11.272')	1500	180	15	Southeast	Upwind	Background	No observations seen to affect sampling integrity
14 5m North of old train station (N 46°09.086' W 060°10.392')	1500	180	26	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
15 5m North of old train station (N 46°09.086' W 060°10.392')	1530	180	26	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
16 35m Northeast of Terminal Rd., Prince St. Intersection (N 46°08.402' W 060°11.272')	1600	180	14	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 5m North of old train station (N 46°09.086' W 060°10.392')	1600	180	25	Southeast	Downwind	Trucks, roller, dozer 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
18 5m North of old train station (N 46°09.086' W 060°10.392')	1620	180	24	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
19 35m Northeast of Terminal Rd., Prince St. Intersection (N 46°08.402' W 060°11.272')	1700	180	11	Southeast	Upwind	Background	No observations seen to affect sampling integrity
21 5m North of old train station (N 46°09.086' W 060°10.392')	1700	180	20	Southeast	Downwind	Trucks, roller, dozer operating	No observations seen to affect sampling integrity
22 5m North of old train station (N 46°09.086' W 060°10.392')	1745	180	19	Southeast	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> )
14	1	125
21	4	85

### VOC Monitoring

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