

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1330-16
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0700 to 1830
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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<b>DATE</b>	25 <sup>th</sup> June, 2009	<b>STPA NO.</b>	<b>CO2-NSL-0080</b>

**SUBJECT: 24<sup>th</sup> June, 2009 Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Tar Cell, Sysco Site  
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. Jennifer Andrews and Reg Peters 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 SLR'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 Jennifer Andrews 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 – Tar Cell, Sysco Site**  
**24<sup>th</sup> June, 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 20m North of railway maintenance building (N46°08.962' W060°11.818')	0900	180	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 70m Northwest of new truck scale (N46°09.360' W060°11.777')	0900	180	19	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
3 70m Northwest of new truck scale (N46°09.360' W060°11.777')	0930	180	29	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
4 20m North of railway maintenance building (N46°08.962' W060°11.818')	1000	180	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 70m Northwest of new truck scale (N46°09.360' W060°11.777')	1000	180	12	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
6 70m Northwest of new truck scale (N46°09.360' W060°11.777')	1030	180	18	Southwest	Downwind	Equipment in operation	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 Northwest of railway maintenance building (N46°08.942' W060°11.749')	1400	180	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1400	180	28	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
9 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1445	180	25	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
10 40m Northwest of railway maintenance building (N46°08.942' W060°11.749')	1500	180	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1500	180	34	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
12 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1530	180	26	Southwest	Downwind	Equipment in operation	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
13 40m Northwest of railway maintenance building (N46°08.942' W060°11.749')	1600	180	22	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1600	180	22	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
15 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1630	180	18	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
16 40m Northwest of railway maintenance building (N46°08.942' W060°11.749')	1700	180	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1700	180	8	Southwest	Downwind	Equipment in operation	No observations seen to affect sampling integrity
18 25m Southeast of new truck scale (N46°09.310' W060°11.637')	1745	180	9	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> )
24	1	125
26	4	85
27	8	70

### VOC Monitoring

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