

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1243-07
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	1000 to 1730
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	11 <sup>th</sup> December, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP2-0069</b>

**SUBJECT: 10<sup>th</sup> December, 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Material Processing Facility  
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 10<sup>th</sup> of December, 2008. Grant Harrigan and Tyler Rowe, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy with gusting winds
- Temperature: approximately 9°C
- Wind Direction: Southwest

**Comments:** *ALL-TECH was on-Site at 1000 and remained on standby until 1230 due to varying weather conditions. Air monitoring began at 1230, and was performed during EarthTech's construction activities.*

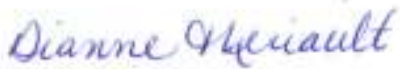
All downwind and upwind measurements of PM<sub>10</sub> were below the established Site Action Level for this parameter of 155 µg/m<sup>3</sup>.

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 Grant Harrigan 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 – Material Processing Facility**  
**10<sup>th</sup> December, 2008**

<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 100m West of Ferry Street Bridge	1230	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 200m North of Spar Road and Ferry Street Intersection	1245	155	17	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 100m West of Ferry Street Bridge	1300	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
4 200m North of Spar Road and Ferry Street Intersection	1300	155	17	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
5 200m North of Spar Road and Ferry Street Intersection	1340	155	17	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
6 100m West of Ferry Street Bridge	1400	155	34	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
7 200m North of Spar Road and Ferry Street Intersection	1400	155	16	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
8 200m North of Spar Road and Ferry Street Intersection	1420	155	16	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
9 Inglis Street, 40m North of Spar Road	1500	155	18	Southwest	Upwind	Background	No observations seen to affect sampling integrity
10 200m North of Spar Road and Ferry Street Intersection	1500	155	16	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
11 200m North of Spar Road and Ferry Street Intersection	1525	155	17	Southwest	Downwind	Excavator moving material	No observations seen to affect sampling integrity
12 Inglis Street, 40m North of Spar Road	1600	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
13 200m North of Spar Road and Ferry Street Intersection	1600	155	18	Southwest	Downwind	Excavator moving material	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 200m North of Spar Road and Ferry Street Intersection	1645	155	18	Southwest	Downwind	Excavator moving material	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 (µg/m <sup>3</sup> )	Dust Budget Exceedance Value (µg/m <sup>3</sup> )
200m North of Spar Road and Ferry Street Intersection	1200 to 1259	17	990
200m North of Spar Road and Ferry Street Intersection	1300 to 1359	34	990
200m North of Spar Road and Ferry Street Intersection	1400 to 1459	50	990
200m North of Spar Road and Ferry Street Intersection	1500 to 1559	67	990
200m North of Spar Road and Ferry Street Intersection	1600 to 1659	85	990

### VOC Monitoring

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