

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1114-16
<b>FROM</b>	Grant Harrigan	<b>SHIFT:</b>	0630 to 1030
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	19 <sup>th</sup> April, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>CP-0127</b>

**SUBJECT: 18<sup>th</sup> April 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – 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 18<sup>th</sup> of April, 2008. Colin MacIsaac 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:

- Overcast with light precipitation
- Temperature: 6°C (data unavailable from Environment Canada)
- Wind Direction: Northwest

**Comments:** *ALL-TECH was on-Site at 0630 and sampling began as soon as there was Site activity. Air monitoring was performed during EarthTech's construction activities.*

*Monitoring activities were suspended at 0830 due to high humidity (98%), ALL-TECH remained on standby until 1030. At 1030 all sampling activities ended for the day.*

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 Colin MacIsaac and reviewed by Grant Harrigan and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



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Grant Harrigan, 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 – Cooling Pond**  
**18<sup>th</sup> April, 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 30m Southeast of Ferry Street, Walker Street intersection	0710	155	14	Northwest	Upwind	Background	No observations seen to effect sampling integrity
2 30m Southwest of STPA building	0710	155	15	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
3 30m Southwest of STPA building	0730	155	19	Northwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
4 30m Southeast of Ferry Street, Walker Street intersection	0800	155	13	Northwest	Upwind	Background	No observations seen to effect sampling integrity
5 30m Southwest of STPA building	0800	155	15	Northwest	Downwind	Bulldozer, forklift operating	No observations seen to effect 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 ( $\mu\text{g}/\text{m}^3$ )	Dust Budget Exceedance Value ( $\mu\text{g}/\text{m}^3$ )
30m Southwest of STPA building	0700 to 0759	17	990
30m Southwest of STPA building	0800 to 0859	32	990

### VOC Monitoring

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