

## MEMORANDUM

**TO** Dawn MacNeil, STPA  
**FROM** Dianne Theriault  
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**DATE** 25<sup>th</sup> September, 2008

**FILE NO.** S-1193-23  
**SHIFT:** 0730 to 1130  
**CC:** Shawn Bernon, STPA  
Wilfred Kaiser, STPA  
Terry Smith, ALL-TECH  
**STPA NO.** PS-0067

**SUBJECT: 25<sup>th</sup> September, 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – North Pond Pilot Study  
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 25<sup>th</sup> of September, 2008. Alison Giovannetti 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:

- Clear skies
- Temperature: approximately 15°C
- Wind Direction: West to Southwest

**Comments:** *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech's construction activities.*

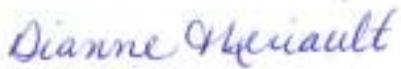
All downwind and upwind measurements of PM<sub>10</sub> were below the established Site Action Level for this parameter of 155 µg/m<sup>3</sup>.

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 Alison Giovannetti 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 – North Pond Pilot Study**  
**25<sup>th</sup> September, 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 50m E of Midland along fence on Railway Rd.	0800	155	13	West	Upwind	Background	No observations seen to affect sampling integrity
2 30m N of Inglis and Sparr Intersection	0800	155	12	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m N of Inglis and Sparr Intersection	0815	155	12	West	Downwind	Crane operating	No observations seen to affect sampling integrity
4 80m N of Inglis and Sparr Intersection	0845	155	10	West	Downwind	Crane operating	No observations seen to affect sampling integrity
5 Intersection of Ferry St. & Walker St.	0900	155	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
6 80m N of Inglis and Sparr Intersection	0900	155	16	Southwest	Downwind	Crane operating	No observations seen to affect sampling integrity
7 80m N of Inglis and Sparr Intersection	0945	155	10	Southwest	Downwind	Crane 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
8 Intersection of Ferry St. & Walker St.	1000	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
9 80m N of Inglis and Sparr Intersection	1000	155	4	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
10 80m N of Inglis and Sparr Intersection	1035	155	7	Southwest	Downwind	Equipment Moving	No observations seen to affect sampling integrity
11 Intersection of Ferry St. & Walker St.	1100	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
12 80m N of Inglis and Sparr Intersection	1100	155	9	Southwest	Downwind	Equipment Moving	No observations seen to affect sampling integrity
13 80m N of Inglis and Sparr Intersection	1115	155	8	Southwest	Downwind	Equipment Moving	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 ( $\mu\text{g}/\text{m}^3$ )	Dust Budget Exceedance Value ( $\mu\text{g}/\text{m}^3$ )
30m N of Inglis and Sparr Intersection	0800 to 0859	12	990
80m N of Inglis and Sparr Intersection	0900 to 0959	25	990
80m N of Inglis and Sparr Intersection	1000 to 1059	31	990
80m N of Inglis and Sparr Intersection	1100 to 1159	40	990

### VOC Monitoring

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