

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1225-03
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0730 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>	6 <sup>th</sup> November, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP2-0047</b>

**SUBJECT: 5<sup>th</sup> November, 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 5<sup>th</sup> of November, 2008. Tyler Rowe and Jennifer Andrews of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast
- Temperature: approximately 13°C
- Wind Direction: 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 Tyler Rowe 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 – Material Processing Facility**  
**5<sup>th</sup> November, 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 Railway property, 20m South of Ferry Street	0800	155	24	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 Inglis Street, 40m North of Spar Road	0800	155	28	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
3 Inglis Street, 40m North of Spar Road	0845	155	30	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
4 Railway property, 20m South of Ferry Street	0900	155	26	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 Inglis Street, 40m North of Spar Road	0900	155	33	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
6 Inglis Street, 40m North of Spar Road	0915	155	31	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
7 Railway property, 20m South of Ferry Street	1000	155	30	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
8 Inglis Street, 40m North of Spar Road	1000	155	34	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
9 Inglis Street, 40m North of Spar Road	1030	155	39	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
10 Railway property, 20m South of Ferry Street	1100	155	35	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 Inglis Street, 40m North of Spar Road	1100	155	37	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
12 Inglis Street, 40m North of Spar Road	1115	155	37	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
13 Railway property, 20m South of Ferry Street	1200	155	33	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 Inglis Street, 40m North of Spar Road	1200	155	35	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
15 Inglis Street, 40m North of Spar Road	1230	155	36	Southwest	Downwind	No activity visible	No observations seen to effect 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
16 Railway property, 20m South of Ferry Street	1300	155	35	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 Inglis Street, 40m North of Spar Road	1300	155	39	Southwest	Downwind	Personnel working with hand tools	No observations seen to effect sampling integrity
18 Inglis Street, 40m North of Spar Road	1345	155	43	Southwest	Downwind	Personnel working with hand tools	No observations seen to effect sampling integrity
19 Railway property, 20m South of Ferry Street	1400	155	40	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 Inglis Street, 40m North of Spar Road	1400	155	43	Southwest	Downwind	Personnel working with hand tools	No observations seen to effect sampling integrity
21 Inglis Street, 40m North of Spar Road	1445	155	48	Southwest	Downwind	Personnel working with hand tools	No observations seen to effect sampling integrity
22 Railway property, 20m South of Ferry Street	1500	155	46	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 Inglis Street, 40m North of Spar Road	1500	155	51	Southwest	Downwind	No activity visible	No observations seen to effect 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
24 Inglis Street, 40m North of Spar Road	1545	155	51	Southwest	Downwind	Personnel working with hand tools	No observations seen to effect sampling integrity
25 Railway property, 20m South of Ferry Street	1600	155	59	Southwest	Upwind	Background	Smell of smoke in air
26 Inglis Street, 40m North of Spar Road	1600	155	53	Southwest	Downwind	No activity visible	No observations seen to effect sampling integrity
27 Inglis Street, 40m North of Spar Road	1645	155	54	Southwest	Downwind	No activity visible	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 ( $\mu\text{g}/\text{m}^3$ )
Inglis Street, 40m North of Spar Road	0800 to 0859	29	990
Inglis Street, 40m North of Spar Road	0900 to 0959	61	990
Inglis Street, 40m North of Spar Road	1000 to 1059	98	990
Inglis Street, 40m North of Spar Road	1100 to 1159	135	990
Inglis Street, 40m North of Spar Road	1200 to 1259	171	990
Inglis Street, 40m North of Spar Road	1300 to 1359	213	990
Inglis Street, 40m North of Spar Road	1400 to 1459	259	990
Inglis Street, 40m North of Spar Road	1500 to 1559	310	990
Inglis Street, 40m North of Spar Road	1600 to 1659	364	990

### VOC Monitoring

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