

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1194-19
<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>	29 <sup>th</sup> September, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP2-0023</b>

**SUBJECT: 26<sup>th</sup> September, 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 26<sup>th</sup> of September, 2008. Alison Giovannetti and Colin MacIsaac 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 17°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 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 – Material Processing Facility**  
**26<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 Ferry St. And Walker St. Intersection	0810	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 60m E of North Pond main gate	0810	155	13	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 60m E of North Pond main gate	0845	155	19	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
4 Ferry St. And Walker St. Intersection	0900	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 60m East of North Pond main gate	0900	155	29	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
6 60m East of North Pond main gate	0930	155	32	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
7 Ferry St. and Walker St. Intersection	1000	155	6	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 60m E of North Pond main gate	1000	155	12	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
9 60m E of North Pond main gate	1020	155	23	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
10 Ferry St. and Walker St. Intersection	1100	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 60m E of North Pond main gate	1100	155	44	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
12 60m E of North Pond main gate	1145	155	55	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
13 Ferry St and Walker St Intersection	1200	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 60m E of North Pond main gate	1200	155	22	Southwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
15 60m E of North Pond main gate	1245	155	45	Southwest	Downwind	Excavators moving material	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 Ferry St. and Walker St. Intersection	1300	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 60m E of North Pond main gate	1300	155	47	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
18 60m E of North Pond main gate	1345	155	46	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
19 Ferry St. and Walker St. Intersection	1400	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 60m E of North Pond main gate	1400	155	32	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
21 60m E of North Pond main gate	1445	155	25	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
22 Ferry St. and Walker St. Intersection	1500	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 60m E of North Pond main gate	1500	155	15	Southwest	Downwind	No activity observed on site	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 60m E of North Pond main gate	1520	155	52	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
25 Ferry St. and Walker St. Intersection	1600	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 60m E of North Pond main gate	1600	155	21	Southwest	Downwind	Excavators moving material	No observations seen to effect sampling integrity
27 60m E of North Pond main gate	1645	155	18	Southwest	Downwind	No activity observed on site	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 ( $\mu\text{g}/\text{m}^3$ )
60m E of North Pond main gate	0800 to 0859	16	990
60m E of North Pond main gate	0900 to 0959	49	990
60m E of North Pond main gate	1000 to 1059	67	990
60m E of North Pond main gate	1100 to 1159	117	990
60m E of North Pond main gate	1200 to 1259	151	990
60m E of North Pond main gate	1300 to 1359	198	990
60m E of North Pond main gate	1400 to 1459	227	990
60m E of North Pond main gate	1500 to 1559	261	990
60m E of North Pond main gate	1600 to 1659	281	990

### VOC Monitoring

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