

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1194-21
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0730 to 1700
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	1 <sup>st</sup> October, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>TP2-0025</b>

**SUBJECT: 30<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 30<sup>th</sup> of September, 2008. Colin MacIsaac and Grant Harrigan of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast with showers
- Temperature: approximately 15°C
- Wind Direction: Northwest to West

**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. Air monitoring was put on standby between 1030 and 1400 due to precipitation.*

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 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**  
**30<sup>th</sup> September, 2008**

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
1 10m North of Ferry Street, Inglis Street intersection	0800	155	4	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
2 50m East of Midland Building on Railway Road	0810	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
3 10m North of Ferry Street, Inglis Street intersection	0815	155	5	Northwest	Downwind	No activity observed on site	No observations seen to effect sampling integrity
4 50m East of Midland Building on Railway Road	0900	155	4	Northwest	Upwind	Background	No observations seen to effect sampling integrity
5 20m North of Ferry Street, Inglis Street intersection	0900	155	3	Northwest	Downwind	Excavators moving materials	No observations seen to affect sampling integrity
6 20m North of Ferry Street, Inglis Street intersection	0925	155	3	Northwest	Downwind	Excavators moving materials	No observations seen to affect sampling integrity
7 50m East of Midland Building on Railway Road	1000	155	4	Northwest	Upwind	Background	Rain

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 5m West of Ferry Street, Inglis Street intersection	1000	155	4	Northwest	Downwind	Excavators moving materials	Rain
9 40m Northeast of Ferry Street, Railway Road intersection	1430	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
10 75m North of Ferry Street, Inglis Street intersection	1430	155	2	West	Downwind	Excavators moving materials	No observations seen to affect sampling integrity
11 75m North of Ferry Street, Inglis Street intersection	1445	155	6	West	Downwind	Excavators moving materials	No observations seen to affect sampling integrity
12 40m Northeast of Ferry Street, Railway Road intersection	1500	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
13 75m North of Ferry Street, Inglis Street intersection	1500	155	1	West	Downwind	Excavators moving materials	No observations seen to affect sampling integrity
14 75m North of Ferry Street, Inglis Street intersection	1542	155	1	West	Downwind	Excavators moving materials	No observations seen to affect sampling integrity
15 40m Northeast of Ferry Street, Railway Road intersection	1600	155	3	West	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
16 75m North of Ferry Street, Inglis Street intersection	1600	155	3	West	Downwind	Excavators moving materials	No observations seen to affect sampling integrity
17 75m North of Ferry Street, Inglis Street intersection	1615	155	3	West	Downwind	No activity observed on site	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 ( $\mu\text{g}/\text{m}^3$ )
10m North of Ferry Street, Inglis Street intersection	0800 to 0859	5	990
20m North of Ferry Street, Inglis Street intersection	0900 to 0959	8	990
5m West of Ferry Street, Inglis Street intersection	1000 to 1059	12	990
75m North of Ferry Street, Inglis Street intersection	1400 to 1459	16	990
75m North of Ferry Street, Inglis Street intersection	1500 to 1559	17	990
75m North of Ferry Street, Inglis Street intersection	1600 to 1659	20	990

### VOC Monitoring

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