

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1151-12
<b>FROM</b>	Peter Ibrahim	<b>SHIFT:</b>	0730 to 1600
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	20 <sup>th</sup> June, 2008		Terry Smith, ALL-TECH
		<b>STPA NO.</b>	<b>CO6II-0012</b>

**SUBJECT: 20<sup>th</sup> June, 2008, Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Coke Ovens Infrastructure Investigation  
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 20<sup>th</sup> of June, 2008. Tyler Rowe and Dwayne Timmons of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly overcast
- Temperature: approximately 15°C
- Wind Direction: Northeast

**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 Peter Ibrahim and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



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Peter Ibrahim

**ALL-TECH Environmental Services Cape Breton Ltd.**

Copied via e-mail:

Shawn Bernon [shawn@tarpondscleanup.ca](mailto:shawn@tarpondscleanup.ca), Wilfred Kaiser [wilfred@tarpondscleanup.ca](mailto:wilfred@tarpondscleanup.ca), Nancy LeDrew [nancy@tarpondscleanup.ca](mailto:nancy@tarpondscleanup.ca), Trish Magliaro [trish@tarpondscleanup.ca](mailto:trish@tarpondscleanup.ca), Terry Smith [tsmith@toalltech.com](mailto:tsmith@toalltech.com), Phyllis Low [pjlow@toalltech.com](mailto:pjlow@toalltech.com), Dianne Theriault [dtheriault@toalltech.com](mailto:dtheriault@toalltech.com), Darren Gardiner [dgardiner@croworld.com](mailto:dgardiner@croworld.com), Darren Lawless [dlawless@toalltech.com](mailto:dlawless@toalltech.com), Kevin Mac Pherson [kevinmacp@cbcl.ca](mailto:kevinmacp@cbcl.ca), Kathy Harquail [kharquail@toalltech.com](mailto:kharquail@toalltech.com)

**Real-time Airborne PM<sub>10</sub> Concentration Results**  
**Sydney Tar Ponds Agency – Coke Ovens Infrastructure Investigation**  
**20<sup>th</sup> June, 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 Northwest corner of Coke Ovens security complex	0835	155	11	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 170m East of Salvation Army store	0835	155	11	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
3 Northwest corner of Coke Ovens security complex	0900	155	9	Northeast	Upwind	Background	No observations seen to effect sampling integrity
4 170m East of Salvation Army store	0900	155	9	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
5 170m East of Salvation Army store	0942	155	7	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
6 Northwest corner of Coke Ovens security complex	1000	155	9	Northeast	Upwind	Background	No observations seen to effect sampling integrity
7 170m East of Salvation Army store	1000	155	8	Northeast	Downwind	Excavator operating	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
8 170m East of Salvation Army store	1019	155	15	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
9 Frederick Street, 300m East of Lingan Road	1100	155	14	Northeast	Upwind	Background	No observations seen to effect sampling integrity
10 190m East of Salvation Army store	1100	155	10	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
11 190m East of Salvation Army store	1130	155	16	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
12 Frederick Street, 300m East of Lingan Road	1200	155	18	Northeast	Upwind	Background	No observations seen to effect sampling integrity
13 190m East of Salvation Army store	1200	155	16	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
14 190m East of Salvation Army store	1223	155	16	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
15 Frederick Street, 300m East of Lingan Road	1300	155	18	Northeast	Upwind	Background	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 190m East of Salvation Army store	1300	155	17	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
17 190m East of Salvation Army store	1336	155	16	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
18 Frederick Street, 300m East of Lingan Road	1400	155	20	Northeast	Upwind	Background	No observations seen to effect sampling integrity
19 190m East of Salvation Army store	1400	155	18	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
20 190m East of Salvation Army store	1434	155	14	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
21 Frederick Street, 300m East of Lingan Road	1500	155	19	Northeast	Upwind	Background	No observations seen to effect sampling integrity
22 190m East of Salvation Army store	1500	155	16	Northeast	Downwind	Excavator operating	No observations seen to effect sampling integrity
23 190m East of Salvation Army store	1515	155	14	Northeast	Downwind	Excavator 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 ( $\mu\text{g}/\text{m}^3$ )
170m East of Salvation Army store	0800 to 0859	11	990
170m East of Salvation Army store	0900 to 0959	19	990
170m East of Salvation Army store	1000 to 1059	31	990
190m East of Salvation Army store	1100 to 1159	44	990
190m East of Salvation Army store	1200 to 1259	60	990
190m East of Salvation Army store	1300 to 1359	77	990
190m East of Salvation Army store	1400 to 1459	93	990
190m East of Salvation Army store	1500 to 1559	108	990

### VOC Monitoring

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