

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1323-01
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	1000 to 1445
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA
<b>FAX</b>	(902) 539-3381		Wilfred Kaiser, STPA
<b>DATE</b>	19 <sup>th</sup> May, 2009		Terry Smith-ALL-TECH
		<b>STPA NO.</b>	<b>CO6-0001</b>

**SUBJECT: 15<sup>th</sup> May, 2009 Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Coke Ovens Cap  
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 15<sup>th</sup> May, 2009. Keith Neville 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:

- Mainly cloudy, showers
- Temperature: approximately 13°C
- Wind Direction: Southwest

**Comments:** *ALL-TECH was on-Site at 1000 and sampling began as soon as there was site activity. Air monitoring was performed during AECOM'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 Keith Neville 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 – Coke Ovens Cap  
 15<sup>th</sup> May, 2009**

<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 20m Northwest of coke ovens security trailer	1040	155	14	Southwest	Downwind	Excavation of material	No observations seen to affect sampling integrity
2 Cape Breton St., 5m East of overpass	1100	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
3 200m North of Lingan Rd., Spar Rd. intersection	1100	155	14	Southwest	Downwind	Excavation of material	No observations seen to affect sampling integrity
4 200m North of Lingan Rd., Spar Rd. intersection	1135	155	14	Southwest	Downwind	Excavation of material	No observations seen to affect sampling integrity
5 Cape Breton St., 5m East of overpass	1200	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
6 160m North of Fredrick St., Lingan Rd. intersection	1200	155	16	Southwest	Downwind	Excavation of material	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
7 160m North of Fredrick St., Lingan Rd. intersection	1225	155	18	Southwest	Downwind	Excavation of material	No observations seen to affect sampling integrity
8 Cape Breton St., 5m East of overpass	1300	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
9 160m North of Fredrick St., Lingan Rd. intersection	1300	155	17	Southwest	Downwind	Excavation of material	No observations seen to affect sampling integrity
10 160m North of Fredrick St., Lingan Rd. intersection	1320	155	16	Southwest	Downwind	Excavation of material	No observations seen to affect sampling integrity
11 Cape Breton St., 5m East of overpass	1400	155	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
12 160m North of Fredrick St., Lingan Rd. intersection	1400	155	16	Southwest	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 ( $\mu\text{g}/\text{m}^3$ )
20m Northwest of coke ovens security trailer	1000 to 1059	14	990
200m North of Lingan Rd., Spar Rd. intersection	1100 to 1159	28	990
160m North of Fredrick St., Lingan Rd. intersection	1200 to 1259	45	990
160m North of Fredrick St., Lingan Rd. intersection	1300 to 1359	62	990
160m North of Fredrick St., Lingan Rd. intersection	1400 to 1459	78	990

### VOC Monitoring

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