

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1313-01
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	0630 to 1530
<b>TEL</b>	(902) 539-3012	<b>CC:</b>	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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<b>DATE</b>	4 <sup>th</sup> May, 2009	<b>STPA NO.</b>	<b>TP6D-CO-0039</b>

**SUBJECT: 1<sup>st</sup> May, 2009 Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Access Roads, Coke Ovens  
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 1<sup>st</sup> of May, 2009. Jennifer Andrews and Keith Neville of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, rain
- Temperature: approximately 13°C
- Wind Direction: South

**Comments:** *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity, but was later put on standby at 1330 hours and cancelled for the day at 1530 hours due to ongoing precipitation. 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 – Access Roads, Coke Ovens**  
**1<sup>st</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 Vulcan Ave., 150m East of Victoria Rd.	0700	155	16	South	Upwind	Background	No observations seen to affect sampling integrity
2 15m East of TP6D (CO) main gate	0700	155	19	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 15m East of TP6D (CO) main gate	0725	155	20	South	Downwind	Trucks moving material	No observations seen to affect sampling integrity
4 Vulcan Ave., 150m East of Victoria Rd.	0800	155	18	South	Upwind	Background	No observations seen to affect sampling integrity
5 15m East of TP6D (CO) main gate	0800	155	21	South	Downwind	Trucks moving material	No observations seen to affect sampling integrity
6 5m East of TP6D (CO) main gate	0840	155	27	South	Downwind	Trucks moving 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 Vulcan Ave., 150m East of Victoria Rd.	0900	155	15	South	Upwind	Background	No observations seen to affect sampling integrity
8 5m East of TP6D (CO) main gate	0900	155	26	South	Downwind	Trucks moving material	No observations seen to affect sampling integrity
9 5m East of TP6D (CO) main gate	0915	155	25	South	Downwind	Trucks moving material	No observations seen to affect sampling integrity
10 Vulcan Ave., 150m East of Victoria Rd.	1000	155	20	South	Upwind	Background	No observations seen to affect sampling integrity
11 5m East of TP6D (CO) main gate	1000	155	21	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 5m East of TP6D (CO) main gate	1030	155	53	South	Downwind	Trucks moving material	No observations seen to affect sampling integrity
13 Vulcan Ave., 150m East of Victoria Rd.	1100	155	17	South	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
14 5m East of TP6D (CO) main gate	1100	155	27	South	Downwind	Trucks moving material	No observations seen to affect sampling integrity
15 5m East of TP6D (CO) main gate	1145	155	78	South	Downwind	Trucks moving material	High wind creating slag dust
16 Vulcan Ave., 150m East of Victoria Rd.	1200	155	17	South	Upwind	Background	No observations seen to affect sampling integrity
17 5m East of TP6D (CO) main gate	1200	155	57	South	Downwind	Trucks moving material	No observations seen to affect sampling integrity
18 5m East of TP6D (CO) main gate	1215	155	19	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 Vulcan Ave., 150m East of Victoria Rd.	1300	155	18	South	Upwind	Background	No observations seen to affect sampling integrity
20 5m East of TP6D (CO) main gate	1300	155	69	South	Downwind	Trucks moving material	High wind creating slag dust

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
21 5m East of TP6D (CO) main gate	1320	155	121	South	Downwind	Trucks moving material	High wind creating slag dust

**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 ( $\mu\text{g}/\text{m}^3$ )
15m East of TP6D (CO) main gate	0700 to 0759	20	990
15m East of TP6D (CO) main gate / 5m East of TP6D (CO) main gate	0800 to 0859	44	990
5m East of TP6D (CO) main gate	0900 to 0959	70	990
5m East of TP6D (CO) main gate	1000 to 1059	107	990
5m East of TP6D (CO) main gate	1100 to 1159	160	990
5m East of TP6D (CO) main gate	1200 to 1259	198	990
5m East of TP6D (CO) main gate	1300 to 1359	293	990

### VOC Monitoring

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