

## MEMORANDUM

<b>TO</b>	Dawn MacNeil, STPA	<b>FILE NO.</b>	S-1332-13
<b>FROM</b>	Dianne Theriault	<b>SHIFT:</b>	1345 to 1830
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<b>DATE</b>	16 <sup>th</sup> June, 2009	<b>STPA NO.</b>	<b>COCW-CL-0056</b>

**SUBJECT: 15<sup>th</sup> June, 2009 Real-time Air Monitoring Results  
Sydney Tar Ponds Agency – Vertical Cut-off Walls, Clay Wall  
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> of June, 2009. Nigel MacLean 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 sunny
- Temperature: approximately 20°C
- Wind Direction: South

**Comments:** *ALL-TECH was on-Site at 1345 hours 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 Nigel MacLean 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 – Vertical Cut-off Walls, Clay Wall**  
**15<sup>th</sup> June, 2009**

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 85m Northeast of Salvation Army (N46°08.762') (W060°10.532')	1400	155	8	South	Upwind	Background	No observations seen to affect sampling integrity
2 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1400	155	3	South	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
3 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1440	155	3	South	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
4 85m Northeast of Salvation Army (N46°08.762') (W060°10.532')	1500	155	9	South	Upwind	Background	No observations seen to affect sampling integrity
5 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1500	155	2	South	Downwind	Excavators and dump trucks operating	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
6 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1545	155	5	South	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
7 85m Northeast of Salvation Army (N46°08.762') (W060°10.532')	1600	155	9	South	Upwind	Background	No observations seen to affect sampling integrity
8 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1600	155	3	South	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
9 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1620	155	2	South	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
10 85m Northeast of Salvation Army (N46°08.762') (W060°10.532')	1700	155	7	South	Upwind	Background	No observations seen to affect sampling integrity
11 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1700	155	6	South	Downwind	Excavators and dump trucks operating	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
12 100m East of Ferry St. and Spar Rd. intersection (N46°09.058') (W060°10.826')	1745	155	3	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity

**Notes:** Air sample duration for each monitoring event was 15 minutes.

### Summary of Downwind PM<sub>10</sub> Action Levels

Average PM <sub>10</sub> Concentration (µg/m <sup>3</sup> )	Averaging Period (Hours)	Downwind Action Level (µg/m <sup>3</sup> )
3	1	125
4	4	85

### VOC Monitoring

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