

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1332-22
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	25 th June, 2009		Terry Smith, ALL-TECH
		STPA NO.	COCW-CL-0065

**SUBJECT: 24th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Vertical Cut-off Walls, Clay Wall
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 24th of June, 2009. Dave Reeves, Jeff King and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Cloudy with showers and sunny periods
- Temperature: approximately 22°C
- Wind Direction: Southwest

Comments: *Air monitoring was delayed until 0830 hours due to high humidity, and began when weather conditions were within instrument specifications. Air monitoring was later put on standby at 1045 hours due to precipitation, and resumed at 1400 hours when weather conditions were within instrument specifications. Air monitoring was performed during AECOM's construction activities.*

All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 180 µg/m³.

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 Jeff King and reviewed by Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Dianne Theriault, B.Tech
Environmental Technologist
ALL-TECH Environmental Services Cape Breton Ltd.

Copied via e-mail:

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

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Vertical Cut-off Walls, Clay Wall
24th June, 2009

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 25m Northeast of Cape Breton St. and Victoria Rd. intersection (N46°08.845' W060°10.667')	0830	180	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 90m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.064' W060°10.627')	0830	180	5	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
3 90m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.064' W060°10.627')	0845	180	7	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
4 25m Northeast of Cape Breton St. and Victoria Rd. intersection (N46°08.845' W060°10.667')	0900	180	11	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 90m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.064' W060°10.627')	0900	180	7	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity

Sydney Tar Ponds Agency - Ambient Air Monitoring Program
 Real-time Air Monitoring Daily Report

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
6 90m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.064' W060°10.627')	0935	180	7	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
7 25m Northeast of Cape Breton St. and Victoria Rd. intersection (N46°08.845' W060°10.667')	1000	180	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 90m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.064' W060°10.627')	1000	180	2	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
9 90m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.064' W060°10.627')	1015	180	7	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
10 15m Northeast of Cape Breton St. and Victoria Rd. intersection (N46°08.849' W060°10.685')	1400	180	17	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1400	180	8	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity

Sydney Tar Ponds Agency - Ambient Air Monitoring Program
 Real-time Air Monitoring Daily Report

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
12 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1425	180	6	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
13 15m Northeast of Cape Breton St. and Victoria Rd. intersection (N46°08.849' W060°10.685')	1500	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1500	180	8	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
15 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1530	180	7	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
16 15m Northeast of Cape Breton St. and Victoria Rd. intersection (N46°08.849' W060°10.685')	1600	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1600	180	8	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM ₁₀ Action Level (µg/m ³)	Average Result (µg/m ³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
18 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1620	180	6	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
19 15m Northeast of Cape Breton St. and Victoria Rd. intersection (N46°08.849' W060°10.685')	1700	180	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1700	180	5	Southwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
21 80m Southwest of Lingan Rd. and Spar Rd. intersection (N46°09.065' W060°10.689')	1745	180	5	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.

Summary of Downwind PM₁₀ Action Levels

Average PM ₁₀ Concentration (µg/m ³)	Averaging Period (Hours)	Downwind Action Level (µg/m ³)
6	1	125
13	4	85
17	8	70

VOC Monitoring

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