

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1332-11
FROM	Dianne Theriault	SHIFT:	0730 to 1315
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	15 th June, 2009	STPA NO.	COCW-SB-0054

**SUBJECT: 13th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Vertical Cut-Off Walls, Soil-bentonite Wall
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 13th of June, 2009. Shaun Dove 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 sunny
- Temperature: approximately 18°C
- Wind Direction: North

Comments: *ALL-TECH was on-Site at 0730 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 PM₁₀ were below the established Site Action Level for this parameter of 155 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 Dwayne Timmons 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:

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Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Vertical Cut-Off Walls, Soil-bentonite Wall
13th 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 210m Northwest of Lingan Rd. and Spar Rd. intersection (N46°09.094' W060°10.770')	0800	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
2 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	0800	155	3	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
3 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	0820	155	3	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
4 210m Northwest of Lingan Rd. and Spar Rd. intersection (N46°09.094' W060°10.770')	0900	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
5 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	0900	155	3	North	Downwind	Excavator moving material	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
6 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	0920	155	2	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
7 210m Northwest of Lingan Rd. and Spar Rd. intersection (N46°09.094' W060°10.770')	1000	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
8 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	1000	155	1	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	1040	155	2	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
10 210m Northwest of Lingan Rd. and Spar Rd. intersection (N46°09.094' W060°10.770')	1100	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
11 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	1100	155	2	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
12 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	1115	155	2	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
13 210m Northwest of Lingan Rd. and Spar Rd. intersection (N46°09.094' W060°10.770')	1200	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
14 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	1200	155	2	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
15 80m Northeast of Inverness St. and Victoria Rd. intersection (N46°08.725' W060°10.541')	1220	155	2	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
80m Northeast of Inverness St. and Victoria Rd. intersection	0800 to 0859	3	990
80m Northeast of Inverness St. and Victoria Rd. intersection	0900 to 0959	6	990
80m Northeast of Inverness St. and Victoria Rd. intersection	1000 to 1059	8	990
80m Northeast of Inverness St. and Victoria Rd. intersection	1100 to 1159	10	990
80m Northeast of Inverness St. and Victoria Rd. intersection	1200 to 1259	12	990

VOC Monitoring

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