

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1354-01
FROM	Dianne Theriault	SHIFT:	0900 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	6 th July, 2009	STPA NO.	COCW-CL-0068

**SUBJECT: 3rd July, 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 3rd of July, 2009. Keith Neville and Reg Peters of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy
- Temperature: approximately 19°C
- Wind Direction: Southeast

Comments: *Air monitoring was delayed until 0900 hours due to high humidity, and began at 1100 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 Keith Neville 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, Clay Wall
3rd July, 2009

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
1 85m North of Salvation Army (N46°08.757') (W060°10.551')	1100	155	14	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1100	155	13	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
3 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1130	155	14	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
4 85m North of Salvation Army (N46°08.757') (W060°10.551')	1200	155	21	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1200	155	17	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
6 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1220	155	19	Southeast	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
7 85m North of Salvation Army (N46°08.757') (W060°10.551')	1300	155	21	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1300	155	19	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1345	155	19	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
10 85m North of Salvation Army (N46°08.757') (W060°10.551')	1400	155	19	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1400	155	19	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
12 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1445	155	19	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
13 85m North of Salvation Army (N46°08.757') (W060°10.551')	1500	155	20	Southeast	Upwind	Background	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
14 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1500	155	19	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
15 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1520	155	18	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
16 85m North of Salvation Army (N46°08.757') (W060°10.551')	1600	155	20	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1600	155	17	Southeast	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
18 Spar Rd., 100m East of Ferry St. (N46°09.061') (W060°10.754')	1645	155	16	Southeast	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)
14	1	125
18	4	85

VOC Monitoring

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