

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1354-02
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	7 th July, 2009	STPA NO.	COCW-CL-0069

**SUBJECT: 6th 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 6th of July, 2009. Keith Neville and Colin MacIsaac 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 16°C
- Wind Direction: West to Northwest

Comments: *ALL-TECH was on site at 0630 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 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 Colin MacIsaac 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
6th July, 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 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	0700	180	7	West	Upwind	Background	No observations seen to affect sampling integrity
2 100m Southwest of Coke Ovens security trailer (N46°08.851') (W060°10.173')	0700	180	5	West	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
3 100m Southwest of Coke Ovens security trailer (N46°08.851') (W060°10.173')	0720	180	5	West	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
4 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	0800	180	6	West	Upwind	Background	No observations seen to affect sampling integrity
5 100m Southwest of Coke Ovens security trailer (N46°08.851') (W060°10.173')	0800	180	4	West	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
6 100m Southwest of Coke Ovens security trailer (N46°08.851') (W060°10.173')	0840	180	3	West	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
7 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	0900	180	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	0900	180	3	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
9 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	0925	180	3	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
10 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1000	180	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1000	180	2	Northwest	Downwind	No activity observed on site	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
12 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1035	180	2	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
13 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1100	180	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1100	180	2	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
15 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1115	180	4	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
16 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1200	180	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1200	180	4	Northwest	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 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1230	180	6	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
19 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1300	180	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1300	180	4	Northwest	Downwind	No activity observed onsite	No observations seen to affect sampling integrity
21 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1335	180	4	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
22 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1400	180	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1400	180	5	Northwest	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
24 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1440	180	5	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
25 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1500	180	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1500	180	4	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
27 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1520	180	4	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
28 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1600	180	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1600	180	4	Northwest	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
30 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1630	180	6	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
31 80m Northeast of South end of Victoria Rd. bridge (N46°08.914') (W060°10.743')	1700	180	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1700	180	6	Northwest	Downwind	Excavators and dump trucks operating	No observations seen to affect sampling integrity
33 350m Southwest of Coke Ovens security trailer (N46°08.783') (W060°10.338')	1745	180	5	Northwest	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)
5	1	125
4	4	85
4	8	70

VOC Monitoring

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