

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-04
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	5 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-CO-0042

**SUBJECT: 4th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, Coke Ovens
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 4th of May, 2009. Jennifer Andrews 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 18°C
- Wind Direction: Southwest to West

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 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 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 – Access Roads, Coke Ovens
4th May, 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 Cape Breton St., 10m East of Victoria Rd.	0700	155	10	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 25m East TP6D (CO) main gate	0700	155	9	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 25m East TP6D (CO) main gate	0730	155	9	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
4 Cape Breton St., 10m East of Victoria Rd.	0800	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 25m East TP6D (CO) main gate	0800	155	9	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
6 25m East TP6D (CO) main gate	0815	155	8	Southwest	Downwind	Trucks 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
7 Cape Breton St., 10m East of Victoria Rd.	0900	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 25m East TP6D (CO) main gate	0900	155	15	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
9 25m East TP6D (CO) main gate	0920	155	15	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
10 Cape Breton St., 10m East of Victoria Rd.	1000	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 25m East TP6D (CO) main gate	1000	155	12	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
12 25m East TP6D (CO) main gate	1040	155	20	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
13 Cape Breton St., 10m East of Victoria Rd.	1100	155	14	Southwest	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 25m East TP6D (CO) main gate	1100	155	18	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
15 25m East TP6D (CO) main gate	1120	155	13	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
16 Cape Breton St., 10m East of Victoria Rd.	1200	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 25m East TP6D (CO) main gate	1200	155	13	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 25m East TP6D (CO) main gate	1245	155	17	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 Cape Breton St., 10m East of Victoria Rd.	1300	155	13	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 25m East TP6D (CO) main gate	1300	155	21	Southwest	Downwind	Trucks 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
21 25m East TP6D (CO) main gate	1345	155	21	Southwest	Downwind	Trucks moving material	No observations seen to affect sampling integrity
22 Curry's Lane, 100m West of Lingan Rd.	1400	155	19	West	Upwind	Background	No observations seen to affect sampling integrity
23 4m Southwest of Coke Ovens Brook main gate	1400	155	11	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
24 4m Southwest of Coke Ovens Brook main gate	1420	155	10	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
25 Curry's Lane, 100m West of Lingan Rd.	1500	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
26 4m Southwest of Coke Ovens Brook main gate	1500	155	10	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
27 4m Southwest of Coke Ovens Brook main gate	1535	155	10	West	Downwind	Activity not visible from sample location	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
28 Curry's Lane, 100m West of Lingan Rd.	1600	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
29 4m Southwest of Coke Ovens Brook main gate	1600	155	11	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
30 4m Southwest of Coke Ovens Brook main gate	1615	155	11	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
31 Curry's Lane, 100m West of Lingan Rd.	1700	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
32 4m Southwest of Coke Ovens Brook main gate	1700	155	14	West	Downwind	Activity not visible from sample location	No observations seen to affect sampling integrity
33 4m Southwest of Coke Ovens Brook main gate	1745	155	13	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity

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

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
25m East TP6D (CO) main gate	0700 to 0759	9	990
25m East TP6D (CO) main gate	0800 to 0859	18	990
25m East TP6D (CO) main gate	0900 to 0959	33	990
25m East TP6D (CO) main gate	1000 to 1059	49	990
25m East TP6D (CO) main gate	1100 to 1159	65	990
25m East TP6D (CO) main gate	1200 to 1259	80	990
25m East TP6D (CO) main gate	1300 to 1359	101	990
4m Southwest of Coke Ovens brook main gate	1400 to 1459	112	990
4m Southwest of Coke Ovens brook main gate	1500 to 1559	122	990
4m Southwest of Coke Ovens brook main gate	1600 to 1659	133	990
4m Southwest of Coke Ovens brook main gate	1700 to 1759	147	990

VOC Monitoring

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