

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1293-14
FROM	Dianne Theriault	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381		
DATE	20 th April, 2009	STPA NO.	CO2-0017

**SUBJECT: 17th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 17th of April, 2009. Jennifer Andrews 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 sunny
- Temperature: approximately 4°C
- Wind Direction: South to 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 SLR'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 Jennifer Andrews 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 – Tar Cell
17th April, 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 Cape Breton Street, 15m East of Victoria Road	0700	155	11	South	Upwind	Background	No observations seen to affect sampling integrity
2 90m East of CO2 main gate	0700	155	16	South	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 90m East of CO2 main gate	0735	155	20	South	Downwind	Excavators moving material	No observations seen to affect sampling integrity
4 50m South of Spar Rd and Spar Rd extension intersection	0800	155	17	West	Upwind	Background	No observations seen to affect sampling integrity
5 120m East of CO2 main gate	0800	155	19	West	Downwind	Excavators moving material	No observations seen to affect sampling integrity
6 120m East of CO2 main gate	0830	155	16	West	Downwind	Excavators 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
7 30m South of Spar Rd and Spar Rd extension intersection	0900	155	17	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 120m East of CO2 main gate	0900	155	38	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
9 120m East of CO2 main gate	0925	155	36	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
10 30m South of Spar Rd and Spar Rd extension intersection	1000	155	15	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m Northeast of coke ovens main gate	1000	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
12 30m NE of coke ovens main gate	1025	155	6	Northwest	Downwind	Excavators 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
13 30m South of Spar Rd and Spar Rd extension intersection	1100	155	18	Northwest	Upwind	Background	No observations seen to affect sampling integrity
14 30m Northeast of coke ovens main gate	1100	155	5	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
15 30m Northeast of coke ovens main gate	1130	155	4	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
16 30m South of Spar Rd and Spar Rd extension intersection	1200	155	19	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 30m Northeast of coke ovens main gate	1200	155	5	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
18 30m Northeast of coke ovens main gate	1245	155	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 30m South of Spar Rd and Spar Rd extension intersection	1300	155	13	Northwest	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
20 30m Northeast of coke ovens main gate	1300	155	2	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
21 30m Northeast of coke ovens main gate	1345	155	2	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
22 30m South of Spar Rd and Spar Rd extension intersection	1400	155	16	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 30m Northeast of coke ovens main gate	1400	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
24 30m Northeast of coke ovens main gate	1430	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
25 30m South of Spar Rd and Spar Rd extension intersection	1500	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 30m Northeast of coke ovens main gate	1500	155	2	Northwest	Downwind	Excavators 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
27 30m Northeast of coke ovens main gate	1530	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
28 30m South of Spar Rd and Spar Rd extension intersection	1600	155	11	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 30m Northeast of coke ovens main gate	1600	155	3	Northwest	Downwind	Excavators moving material	No observations seen to affect sampling integrity
30 30m Northeast of coke ovens main gate	1645	155	2	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.

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
90m East of CO2 main gate	0700 to 0759	18	990
120m East of CO2 main gate	0800 to 0859	36	990
120m East of CO2 main gate	0900 to 0959	73	990
30m Northeast of coke ovens main gate	1000 to 1059	79	990
30m Northeast of coke ovens main gate	1100 to 1159	84	990
30m Northeast of coke ovens main gate	1200 to 1259	88	990
30m Northeast of coke ovens main gate	1300 to 1359	90	990
30m Northeast of coke ovens main gate	1400 to 1459	93	990
30m Northeast of coke ovens main gate	1500 to 1559	96	990
30m Northeast of coke ovens main gate	1600 to 1659	99	990

VOC Monitoring

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