

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1330-05
FROM	Dianne Theriault	SHIFT:	0630 to 1630
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
FAX	(902) 539-3381	STPA NO.	CO2-NSL-0069
DATE	8 th June, 2009		

**SUBJECT: 5th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Sysco Site
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 5th of June, 2009. Britney Grant, Tyler Rowe, 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 20°C
- Wind Direction: Northeast to Southwest

Comments: *ALL-TECH was on-Site at 0630 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 Britney Grant 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, Sysco Site
5th 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 250m Northeast of new truck scale (N 46° 09.393' W 060° 11.505')	0700	155	19	Northeast	Upwind	Background	No observations seen to affect sampling integrity
2 100m Northeast of railway building (N 46°08.971' W 060°11.737')	0700	155	15	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 100m Northeast of railway building (N 46°08.971' W 060°11.737')	0720	155	13	Northeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 250m Northeast of new truck scale (N 46° 09.393' W 060° 11.505')	0800	155	20	Northeast	Upwind	Background	No observations seen to affect sampling integrity
5 100m Northeast of railway building (N 46°08.971' W 060°11.737')	0800	155	10	Northeast	Downwind	Equipment operating	No observations seen to affect sampling integrity
6 100m Northeast of railway building (N 46°08.971' W 060°11.737')	0835	155	7	Northeast	Downwind	Equipment 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 250m Northeast of new truck scale (N 46° 09.393' W 060° 11.505')	0900	155	15	Northeast	Upwind	Background	No observations seen to affect sampling integrity
8 100m Northeast of railway building (N 46°08.971' W 060°11.737')	0900	155	11	Northeast	Downwind	Equipment operating	No observations seen to affect sampling integrity
9 100m Northeast of railway building (N 46°08.971' W 060°11.737')	0920	155	11	Northeast	Downwind	Equipment operating	No observations seen to affect sampling integrity
10 65m Northeast of railway building (N46°09.943' W 060°11.748')	1000	155	5	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1000	155	12	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
12 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1040	155	24	Southwest	Downwind	Equipment 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
13 65m Northeast of railway building (N46°08.943' W 060°11.748')	1100	155	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1100	155	14	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
15 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1120	155	16	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
16 65m Northeast of railway building (N46°08.943' W 060°11.748')	1200	155	1	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1200	155	17	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
18 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1245	155	25	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
19 65m Northeast of railway building (N46°08.943' W 060°11.748')	1300	155	0	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
20 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1300	155	72	Southwest	Downwind	No activity observed on site	Dust from site road traffic
21 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1340	155	24	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
22 65m Northeast of railway building (N46°08.943' W 060°11.748')	1400	155	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
23 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1400	155	23	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
24 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1425	155	20	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
25 65m Northeast of railway building (N46°08.943' W 060°11.748')	1500	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
26 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1500	155	19	Southwest	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
27 25m Northwest of new truck scale (N 46°09.342' W 060°11.676')	1545	155	40	Southwest	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 ($\mu\text{g}/\text{m}^3$)
100m Northeast of railway building	0700 to 0759	14	990
100m Northeast of railway building	0800 to 0859	23	990
100m Northeast of railway building	0900 to 0959	34	990
25m Northwest of new truck scale	1000 to 1059	52	990
25m Northwest of new truck scale	1100 to 1159	67	990
25m Northwest of new truck scale	1200 to 1259	88	990
25m Northwest of new truck scale	1300 to 1359	136	990
25m Northwest of new truck scale	1400 to 1459	158	990
25m Northwest of new truck scale	1500 to 1559	188	990

VOC Monitoring

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