

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1312-28
FROM	Dianne Theriault	SHIFT:	0630 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	27 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	CO2-NSL-0059

**SUBJECT: 26th May, 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 26th of May, 2009. Donald MacIsaac 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 8°C
- Wind Direction: Northwest

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 Donald 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 – Tar Cell, Sysco Site
26th May, 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 80m North of railway building	0700	155	3	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 140m South of new truck scale	0700	155	3	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 140m South of new truck scale	0725	155	6	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
4 80m North of railway building	0800	155	1	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 140m South of new truck scale	0800	155	16	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
6 140m South of new truck scale	0845	155	9	Northwest	Downwind	Equipment operating	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 80m North of railway building	0900	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 180m South of new truck scale	0900	155	13	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
9 180m South of new truck scale	0930	155	23	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
10 80m North of railway building	1000	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 180m South of new truck scale	1000	155	10	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
12 180m South of new truck scale	1025	155	10	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
13 80m North of railway building	1100	155	20	Northwest	Upwind	Background	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
14 180m South of new truck scale	1100	155	26	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
15 180m South of new truck scale	1120	155	21	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
16 80m North of railway building	1200	155	21	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 180m South of new truck scale	1200	155	21	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
18 180m South of new truck scale	1215	155	15	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
19 80m North of railway building	1300	155	37	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 180m South of new truck scale	1300	155	18	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
21 180m South of new truck scale	1325	155	22	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
22 80m North of railway building	1400	155	29	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 180m South of new truck scale	1400	155	27	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
24 180m South of new truck scale	1440	155	7	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
25 80m North of railway building	1500	155	9	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 170m South of new truck scale	1500	155	25	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
27 170m South of new truck scale	1530	155	32	Northwest	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
28 80m North of railway building	1600	155	7	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 170m South of new truck scale	1600	155	20	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
30 170m South of new truck scale	1615	155	11	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
31 80m North of railway building	1700	155	8	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 170m South of new truck scale	1700	155	31	Northwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
33 170m South of new truck scale	1745	155	17	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 ($\mu\text{g}/\text{m}^3$)
140m South of new truck scale	0700 to 0759	5	990
140m South of new truck scale	0800 to 0859	18	990
180m South of new truck scale	0900 to 0959	36	990
180m South of new truck scale	1000 to 1059	46	990
180m South of new truck scale	1100 to 1159	70	990
180m South of new truck scale	1200 to 1259	88	990
180m South of new truck scale	1300 to 1359	108	990
180m South of new truck scale	1400 to 1459	125	990
170m South of new truck scale	1500 to 1559	154	990
170m South of new truck scale	1600 to 1659	170	990
170m South of new truck scale	1700 to 1759	194	990

VOC Monitoring

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