

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1312-07
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	8 th May, 2009	STPA NO.	CO2-NSL-0038

**SUBJECT: 7th 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 7th of May, 2009. Shaun Dove and Dwayne Timmons of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Mainly cloudy, rain
- Temperature: approximately 8°C
- Wind Direction: West

Comments: *ALL-TECH was on-Site at 0630 hours and sampling began as soon as there was site activity, but was later put on standby at 1530 hours and cancelled for the day at 1730 due to ongoing precipitation. 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 Dwayne Timmons 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
7th 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 100m North of railway building	0700	155	1	West	Upwind	Background	No observations seen to affect sampling integrity
2 300m South of old incinerator	0700	155	6	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
3 300m South of old incinerator	0735	155	11	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
4 100m North of railway building	0800	155	1	West	Upwind	Background	No observations seen to affect sampling integrity
5 300m South of old incinerator	0800	155	4	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
6 300m South of old incinerator	0820	155	38	West	Downwind	Activity not visible from monitoring location	Traffic close to monitoring equipment

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 100m North of railway building	0900	155	1	West	Upwind	Background	No observations seen to affect sampling integrity
8 300m South of old incinerator	0900	155	5	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
9 300m South of old incinerator	0940	155	2	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
10 100m North of railway building	1000	155	1	West	Upwind	Background	No observations seen to affect sampling integrity
11 300m South of old incinerator	1000	155	1	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
12 300m South of old incinerator	1045	155	18	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
13 100m North of railway building	1100	155	2	West	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 300m South of old incinerator	1100	155	8	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
15 300m South of old incinerator	1115	155	9	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
16 100m North of railway building	1200	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
17 300m South of old incinerator	1200	155	7	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
18 300m South of old incinerator	1220	155	12	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
19 100m North of railway building	1300	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
20 300m South of old incinerator	1300	155	4	West	Downwind	Activity not visible from monitoring 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
21 300m South of old incinerator	1320	155	5	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
22 100m North of railway building	1400	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
23 300m South of old incinerator	1400	155	11	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
24 300m South of old incinerator	1425	155	9	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
25 100m North of railway building	1500	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
26 300m South of old incinerator	1500	155	6	West	Downwind	Activity not visible from monitoring location	No observations seen to affect sampling integrity
27 300m South of old incinerator	1525	155	9	West	Downwind	Activity not visible from monitoring location	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 ($\mu\text{g}/\text{m}^3$)
300m South of old incinerator	0700 to 0759	9	990
300m South of old incinerator	0800 to 0859	30	990
300m South of old incinerator	0900 to 0959	34	990
300m South of old incinerator	1000 to 1059	44	990
300m South of old incinerator	1100 to 1159	53	990
300m South of old incinerator	1200 to 1259	63	990
300m South of old incinerator	1300 to 1359	68	990
300m South of old incinerator	1400 to 1459	78	990
300m South of old incinerator	1500 to 1559	86	990

VOC Monitoring

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