

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-11
FROM	Dianne Theriault	SHIFT:	0630 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	8 th May, 2009	STPA NO.	TP6D-SP-0049

**SUBJECT: 7th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, South Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 7th of May, 2009. Nigel MacLean and Donald MacIsaac 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 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 Nigel MacLean 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, South Pond
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 30m North of Intercolonial St. and Dorchester St. intersection	0700	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
2 20m North of Plaza Ford	0700	155	6	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 20m North of Plaza Ford	0730	155	27	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
4 30m North of Intercolonial St. and Dorchester St. intersection	0800	155	4	West	Upwind	Background	No observations seen to affect sampling integrity
5 20m North of Plaza Ford	0800	155	13	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
6 20m North of Plaza Ford	0840	155	3	West	Downwind	Excavators and dump trucks in operation	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 North of Intercolonial St. and Dorchester St. intersection	0900	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
8 20m North of Plaza Ford	0900	155	6	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
9 20m North of Plaza Ford	0915	155	8	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
10 30m North of Intercolonial St. and Dorchester St. intersection	1000	155	3	West	Upwind	Background	No observations seen to affect sampling integrity
11 20m North of Plaza Ford	1000	155	10	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
12 20m North of Plaza Ford	1030	155	4	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
13 30m North of Intercolonial St. and Dorchester St. intersection	1100	155	6	West	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 20m North of Plaza Ford	1100	155	8	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
15 20m North of Plaza Ford	1145	155	13	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
16 30m North of Intercolonial St. and Dorchester St. intersection	1200	155	7	West	Upwind	Background	No observations seen to affect sampling integrity
17 20m North of Plaza Ford	1200	155	16	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
18 20m North of Plaza Ford	1230	155	14	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
19 30m North of Intercolonial St. and Dorchester St. intersection	1300	155	29	West	Upwind	Background	No observations seen to affect sampling integrity
20 20m North of Plaza Ford	1300	155	12	West	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 20m North of Plaza Ford	1345	155	8	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
22 30m North of Intercolonial St. and Dorchester St. intersection	1400	155	8	West	Upwind	Background	No observations seen to affect sampling integrity
23 20m North of Plaza Ford	1400	155	9	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
24 20m North of Plaza Ford	1420	155	9	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
25 30m North of Intercolonial St. and Dorchester St. intersection	1500	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
26 20m North of Plaza Ford	1500	155	7	West	Downwind	Excavators and dump trucks in operation	No observations seen to affect sampling integrity
27 20m North of Plaza Ford	1530	155	11	West	Downwind	Excavators and dump trucks in operation	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 ($\mu\text{g}/\text{m}^3$)
20m North of Plaza Ford	0700 to 0759	17	990
20m North of Plaza Ford	0800 to 0859	25	990
20m North of Plaza Ford	0900 to 0959	32	990
20m North of Plaza Ford	1000 to 1059	39	990
20m North of Plaza Ford	1100 to 1159	50	990
20m North of Plaza Ford	1200 to 1259	65	990
20m North of Plaza Ford	1300 to 1359	75	990
20m North of Plaza Ford	1400 to 1459	84	990
20m North of Plaza Ford	1500 to 1559	93	990

VOC Monitoring

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