

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1313-27
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.	TP6D-SP-0065

**SUBJECT: 26th 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 26th of May, 2009. David Reeves and Nigel MacLean 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 hours and sampling began as soon as there was site activity. 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
26th May, 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 25m East of Walker St. And Ferry St. intersection	0700	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m North of Terminal Rd. and Prince St. intersection	0700	155	1	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m North of Terminal Rd. and Prince St. intersection	0730	155	3	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
4 25m East of Walker St. And Ferry St. intersection	0800	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m North of Terminal Rd. and Prince St. intersection	0800	155	4	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
6 30m North of Terminal Rd. and Prince St. intersection	0830	155	9	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity

Sydney Tar Ponds Agency - Ambient Air Monitoring Program
 Real-time Air Monitoring Daily Report

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 East of Dodd St. and Dorchester St. intersection	0900	155	6	Northwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m North of Terminal Rd. and Prince St. intersection	0900	155	13	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
9 30m North of Terminal Rd. and Prince St. intersection	0930	155	7	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
10 30m East of Dodd St. and Dorchester St. intersection	1000	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m North of Terminal Rd. and Prince St. intersection	1000	155	9	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
12 30m North of Terminal Rd. and Prince St. intersection	1030	155	6	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
13 30m East of Dodd St. and Dorchester St. intersection	1100	155	5	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
14 30m North of Terminal Rd. and Prince St. intersection	1100	155	16	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
15 30m North of Terminal Rd. and Prince St. intersection	1130	155	40	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
16 65m South of Ritchie St. and Dodd St. intersection	1200	155	10	Northwest	Upwind	Background	No observations seen to affect sampling integrity
17 30m North of Terminal Rd. and Prince St. intersection	1200	155	18	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
18 30m North of Terminal Rd. and Prince St. intersection	1230	155	17	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
19 65m South of Ritchie St. and Dodd St. intersection	1300	155	15	Northwest	Upwind	Background	No observations seen to affect sampling integrity
20 30m North of Terminal Rd. and Prince St. intersection	1300	155	19	Northwest	Downwind	Dump trucks, dozer, roller, excavator 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
21 30m North of Terminal Rd. and Prince St. intersection	1330	155	11	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
22 65m South of Ritchie St. and Dodd St. intersection	1400	155	13	Northwest	Upwind	Background	No observations seen to affect sampling integrity
23 30m North of Terminal Rd. and Prince St. intersection	1400	155	13	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
24 30m North of Terminal Rd. and Prince St. intersection	1430	155	13	Northwest	Downwind	Machinery in operation	No observations seen to affect sampling integrity
25 65m South of Ritchie St. and Dodd St. intersection	1500	155	17	Northwest	Upwind	Background	No observations seen to affect sampling integrity
26 30m North of Terminal Rd. and Prince St. intersection	1500	155	9	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
27 30m North of Terminal Rd. and Prince St. intersection	1530	155	21	Northwest	Downwind	Dump trucks, dozer, roller, excavator 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 65m South of Ritchie St. and Dodd St. intersection	1600	155	12	Northwest	Upwind	Background	No observations seen to affect sampling integrity
29 30m North of Terminal Rd. and Prince St. intersection	1600	155	9	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
30 30m North of Terminal Rd. and Prince St. intersection	1630	155	64	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	Dust from material being dumped
31 65m South of Ritchie St. and Dodd St. intersection	1700	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
32 30m North of Terminal Rd. and Prince St. intersection	1700	155	41	Northwest	Downwind	Dump trucks, dozer, roller, excavator operating	No observations seen to affect sampling integrity
33 30m North of Terminal Rd. and Prince St. intersection	1745	155	7	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 ($\mu\text{g}/\text{m}^3$)
30m North of Terminal Rd. and Prince St. intersection	0700 to 0759	2	990
30m North of Terminal Rd. and Prince St. intersection	0800 to 0859	9	990
30m North of Terminal Rd. and Prince St. intersection	0900 to 0959	19	990
30m North of Terminal Rd. and Prince St. intersection	1000 to 1059	27	990
30m North of Terminal Rd. and Prince St. intersection	1100 to 1159	56	990
30m North of Terminal Rd. and Prince St. intersection	1200 to 1259	74	990
30m North of Terminal Rd. and Prince St. intersection	1300 to 1359	89	990
30m North of Terminal Rd. and Prince St. intersection	1400 to 1459	102	990
30m North of Terminal Rd. and Prince St. intersection	1500 to 1559	117	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
30m North of Terminal Rd. and Prince St. intersection	1600 to 1659	154	990
30m North of Terminal Rd. and Prince St. intersection	1700 to 1759	178	990

VOC Monitoring

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