

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1331-02
FROM	Dianne Theriault	SHIFT:	0900 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	2 nd June, 2009		Terry Smith, ALL-TECH
		STPA NO.	TP6D-NP-0076

**SUBJECT: 1st June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads, North Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 1st of June, 2009. Alison Giovannetti and Shaun Dove of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH) performed all air monitoring activities.

Weather conditions on the day of sampling:

- Rain, mainly sunny
- Temperature: approximately 16°C
- Wind Direction: Southwest

Comments: *Air monitoring was delayed until 0900 hours due to precipitation, and began at 1100 hours when weather conditions were within instrument specifications. 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 Alison Giovannetti 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, North Pond
1st 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 30m North of Ferry St. and Railway Rd. intersection	1100	155	8	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1100	155	10	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
3 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1130	155	9	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
4 30m North of Ferry St. and Railway Rd. intersection	1200	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1200	155	10	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1225	155	13	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
7 30m North of Ferry St. and Railway Rd. intersection	1300	155	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1300	155	8	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
9 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1325	155	11	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
10 75m North of Ferry St. and Railway Rd. intersection	1400	155	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1400	155	9	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
12 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1415	155	6	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
13 75m North of Ferry St. and Railway Rd. intersection	1500	155	7	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
14 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1500	155	41	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
15 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1530	155	42	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
16 75m North of Ferry St. and Railway Rd. intersection	1600	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1600	155	12	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
18 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1615	155	43	Southwest	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 75m North of Ferry St. and Railway Rd. intersection	1700	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
20 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1700	155	78	Southwest	Downwind	Machine moving material	Dust from site road

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 120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1740	155	30	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 ($\mu\text{g}/\text{m}^3$)
120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1100 to 1159	10	990
120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1200 to 1259	22	990
120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1300 to 1359	32	990
120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1400 to 1459	40	990
120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1500 to 1559	82	990
120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1600 to 1659	110	990
120m Southwest of new truck scale (N 46°09.247' W 060°11.621')	1700 to 1759	164	990

VOC Monitoring

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