

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1074-26
FROM	Grant Harrigan	SHIFT:	0830 to 1830
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	29 th February, 2008		Terry Smith, ALL-TECH
		STPA NO.	CP-0083

**SUBJECT: 28th February, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Cooling Pond
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 28th of February, 2008. Colin MacIsaac and Trevor Rowe, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Snow changing to rain and then clearing by early afternoon.
- Temperature: approximately 2°C (data unavailable from Environment Canada)
- Wind Direction: Northeast with slight variations to the North & Northwest.

Comments: *ALL-TECH was on-Site at 0830 and sampling began as soon as there was Site activity. Air monitoring was performed during EarthTech's construction activities.*

All downwind and upwind measurements of PM₁₀ were well 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 well 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), TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Trevor Rowe and reviewed by Grant Harrigan and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, 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 – Cooling Pond
28th February, 2008

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 75m North of STPA building 15m East of Inglis Street	0900	155	26	Northeast	Upwind	Background	No observations seen to effect sampling integrity
2 50m Northeast of Kia Auto Mall Dodd Street	0900	155	30	Northeast	Downwind	Excavation of material	No observations seen to effect sampling integrity
3 50m Northeast of Kia Auto Mall Dodd Street	0930	155	14	Northeast	Downwind	Excavation of material	No observations seen to effect sampling integrity
4 10m Southeast of Inglis Street, Spar Road intersection	1000	155	21	Northeast	Upwind	Background	No observations seen to effect sampling integrity
5 50m Northeast of Kia Auto Mall Dodd Street	1000	155	20	Northeast	Downwind	Excavation of material	No observations seen to effect sampling integrity
6 50m Northeast of Kia Auto Mall Dodd Street	1030	155	17	Northeast	Downwind	Excavation of material	No observations seen to effect sampling integrity
7 10m Southeast of Inglis Street, Spar Road intersection	1100	155	26	Northeast	Upwind	Background	No observations seen to effect 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
8 50m Northeast of Kia Auto Mall Dodd Street	1100	155	17	Northeast	Downwind	Excavation of material	Varying wind direction
9 50m Northeast of Kia Auto Mall Dodd Street	1130	155	16	Northeast	Downwind	Excavation of material	Varying wind direction
10 10m Southeast of Inglis Street, Spar Road intersection	1200	155	21	Northeast	Upwind	Background	No observations seen to effect sampling integrity
11 50m Northeast of Kia Auto Mall Dodd Street	1200	155	17	Northeast	Downwind	Excavation of material	Varying wind direction
12 50m Northeast of Kia Auto Mall Dodd Street	1230	155	16	Northeast	Downwind	Excavation of material	Varying wind direction
13 10m Southeast of Inglis Street, Spar Road intersection	1300	155	17	Northeast	Upwind	Background	No observations seen to effect sampling integrity
14 50m Northeast of Kia Auto Mall Dodd Street	1300	155	15	Northeast	Downwind	Background	No observations seen to effect sampling integrity
15 50m Northeast of Kia Auto Mall Dodd Street	1330	155	11	Northeast	Downwind	Excavation of material	No observations seen to effect 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
16 10m Southeast of Inglis Street, Spar Road intersection	1400	155	21	Northeast	Upwind	Background	No observations seen to effect sampling integrity
17 50m Northeast of Kia Auto Mall Dodd Street	1400	155	6	Northwest	Downwind	Excavation of material	Varying wind direction
18 50m Northeast of Kia Auto Mall Dodd Street	1430	155	5	Northwest	Downwind	Excavation of material	Varying wind direction
19 20m Southwest of Walker Street, Ferry Street intersection	1510	155	5	Northwest	Upwind	Background	No observations seen to effect sampling integrity
20 30m Southeast of Cooling Pond Security Trailer	1500	155	2	Northwest	Downwind	Excavation of material	No observations seen to effect sampling integrity
21 30m Southeast of Cooling Pond Security Trailer	1530	155	1	Northwest	Downwind	Excavation of material	No observations seen to effect sampling integrity
22 20m Southwest of Walker Street, Ferry Street intersection	1600	155	3	Northwest	Upwind	Background	No observations seen to effect sampling integrity
23 30m Southeast of Cooling Pond Security Trailer	1600	155	2	Northwest	Downwind	Excavation of material	No observations seen to effect 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
24 30m Southeast of Cooling Pond Security Trailer	1630	155	2	Northwest	Downwind	Excavation of material	No observations seen to effect sampling integrity
25 20m Southwest of Walker Street, Ferry Street intersection	1700	155	4	Northwest	Upwind	Background	No observations seen to effect sampling integrity
26 30m Southeast of Cooling Pond Security Trailer	1700	155	1	Northwest	Downwind	Background	No observations seen to effect 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 ($\mu\text{g}/\text{m}^3$)
50m Northeast of Kia Auto Mall Dodd Street	0900 to 0959	22	990
50m Northeast of Kia Auto Mall Dodd Street	1000 to 1059	41	990
50m Northeast of Kia Auto Mall Dodd Street	1100 to 1159	58	990
50m Northeast of Kia Auto Mall Dodd Street	1200 to 1259	75	990
50m Northeast of Kia Auto Mall Dodd Street	1300 to 1359	88	990
50m Northeast of Kia Auto Mall Dodd Street	1400 to 1459	94	990
30m Southeast of Cooling Pond Security Trailer	1500 to 1559	96	990
30m Southeast of Cooling Pond Security Trailer	1600 to 1659	98	990
30m Southeast of Cooling Pond Security Trailer	1700 to 1759	99	990

VOC Monitoring

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