

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-20
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	23 rd September, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0064

**SUBJECT: 22nd September, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – North Pond Pilot Study
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 22nd of September, 2008. Reg Peters and Tyler Rowe of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Sunny with cloudy periods
- Temperature: approximately 15°C
- Wind Direction: West to Northwest to North

Comments: *ALL-TECH was on-Site at 0730 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech's construction activities.*

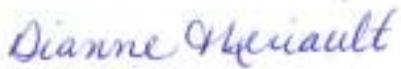
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Tyler Rowe 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 – North Pond Pilot Study
22nd September, 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 Walker Street, 35m North of Ferry Street	0800	155	6	West	Upwind	Background	No observations seen to affect sampling integrity
2 Inglis Street, 40m North of Spar Road	0800	155	9	West	Downwind	No activity observed on site	No observations seen to effect sampling integrity
3 Inglis Street, 40m North of Spar Road	0830	155	13	West	Downwind	Crane operating	No observations seen to effect sampling integrity
4 Walker Street, 35m North of Ferry Street	0900	155	38	West	Upwind	Background	Dust from four passing trucks
5 Inglis Street, 40m North of Spar Road	0900	155	7	West	Downwind	Crane operating	No observations seen to effect sampling integrity
6 Inglis Street, 40m North of Spar Road	0945	155	22	Northwest	Downwind	Crane operating	No observations seen to effect sampling integrity
7 Railway Property, 200m North of Ferry Street	1000	155	10	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
8 Inglis Street, 40m North of Spar Road	1000	155	37	Northwest	Downwind	Crane operating	Dust from site roads
9 Inglis Street, 40m North of Spar Road	1040	155	89	Northwest	Downwind	Crane operating	Dust from site roads
10 Railway Property, 200m North of Ferry Street	1100	155	12	North	Upwind	Background	No observations seen to affect sampling integrity
11 20m Northeast of Ferry Street bridge	1100	155	54	North	Downwind	Crane operating	Dust from site roads
12 20m Northeast of Ferry Street bridge	1120	155	21	North	Downwind	Crane operating	No observations seen to affect sampling integrity
13 Railway Property, 200m North of Ferry Street	1200	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
14 20m Northeast of Ferry Street bridge	1200	155	7	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 20m Northeast of Ferry Street bridge	1240	155	39	North	Downwind	Crane operating	Dust from site roads

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 Railway Property, 200m North of Ferry Street	1300	155	5	North	Upwind	Background	No observations seen to affect sampling integrity
17 20m Northeast of Ferry Street bridge	1300	155	19	North	Downwind	Crane operating	No observations seen to affect sampling integrity
18 20m Northeast of Ferry Street bridge	1345	155	10	North	Downwind	Crane operating	No observations seen to affect sampling integrity
19 Railway Property, 200m North of Ferry Street	1400	155	10	North	Upwind	Background	No observations seen to affect sampling integrity
20 20m Northeast of Ferry Street bridge	1400	155	16	North	Downwind	Crane operating	No observations seen to affect sampling integrity
21 20m Northeast of Ferry Street bridge	1425	155	15	North	Downwind	Crane operating	No observations seen to affect sampling integrity
22 Railway Property, 200m North of Ferry Street	1500	155	11	North	Upwind	Background	No observations seen to affect sampling integrity
23 20m Northeast of Ferry Street bridge	1500	155	7	North	Downwind	Crane 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
24 20m Northeast of Ferry Street bridge	1530	155	26	North	Downwind	Crane operating	No observations seen to affect sampling integrity
25 Railway Property, 200m North of Ferry Street	1600	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
26 20m Northeast of Ferry Street bridge	1600	155	13	North	Downwind	Crane operating	No observations seen to affect sampling integrity
27 20m Northeast of Ferry Street bridge	1645	155	8	North	Downwind	Crane operating	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 ($\mu\text{g}/\text{m}^3$)
Inglis Street, 40m North of Spar Road	0800 to 0859	11	990
Inglis Street, 40m North of Spar Road / 30m Northeast of Ferry Street bridge	0900 to 0959	26	990
30m Northeast of Ferry Street bridge	1000 to 1059	89	990
30m Northeast of Ferry Street bridge	1100 to 1159	127	990
30m Northeast of Ferry Street bridge	1200 to 1259	150	990
30m Northeast of Ferry Street bridge	1300 to 1359	165	990
30m Northeast of Ferry Street bridge	1400 to 1459	181	990
30m Northeast of Ferry Street bridge	1500 to 1559	198	990
30m Northeast of Ferry Street bridge	1600 to 1659	209	990

VOC Monitoring

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