

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1193-19
FROM	Dianne Theriault	SHIFT:	0730 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	22 nd September, 2008	STPA NO.	PS-0063

**SUBJECT: 19th 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 19th of September, 2008. Alison Giovannetti and Reg Peters 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 16°C
- Wind Direction: Northwest / 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 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 – North Pond Pilot Study
19th 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 50m E of Midland along fence on Railway Rd.	0800	155	5	Northwest	Upwind	Background	No observations seen to affect sampling integrity
2 40m E of Ferry St. bridge	0800	155	6	Northwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 40m E of Ferry St. bridge	0830	155	8	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
4 50m E of Midland along fence on Railway Rd.	0900	155	4	Northwest	Upwind	Background	No observations seen to affect sampling integrity
5 40m E of Ferry St. bridge	0900	155	18	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
6 40m E of Ferry St. bridge	0945	155	12	Northwest	Downwind	Crane operating	No observations seen to affect sampling integrity
7 50m E of Midland along fence on Railway Rd.	1000	155	13	North	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 30m E of Ferry St. bridge	1000	155	17	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 30m E of Ferry St. bridge	1020	155	28	North	Downwind	Crane operating	No observations seen to affect sampling integrity
10 50m E of Midland along fence on Railway Rd.	1100	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
11 30m E of Ferry St. bridge	1100	155	10	North	Downwind	Crane operating	No observations seen to affect sampling integrity
12 30m E of Ferry St. bridge	1130	155	12	North	Downwind	Crane operating	No observations seen to affect sampling integrity
13 50m E of Midland along fence on Railway Rd.	1200	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
14 30m E of Ferry St. bridge	1200	155	11	North	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
15 30m E of Ferry St. bridge	1230	155	9	North	Downwind	Crane operating	No observations seen to affect sampling integrity
16 50m E of Midland along fence on Railway Rd.	1300	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
17 30m E of Ferry St. bridge	1300	155	9	North	Downwind	Crane operating	No observations seen to affect sampling integrity
18 30m E of Ferry St. bridge	1330	155	11	North	Downwind	Crane operating	No observations seen to affect sampling integrity
19 50m E of Midland along fence on Railway Rd.	1400	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
20 30m E of Ferry St. bridge	1400	155	19	North	Downwind	Crane operating	No observations seen to affect sampling integrity
21 30m E of Ferry St. bridge	1425	155	10	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
22 50m E of Midland along fence on Railway Rd.	1500	155	6	North	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
23 30m E of Ferry St. bridge	1500	155	11	North	Downwind	Crane Operating	No observations seen to affect sampling integrity
24 30m E of Ferry St. bridge	1530	155	6	North	Downwind	Crane operating	No observations seen to affect sampling integrity
25 50m E of Midland along fence on Railway Rd.	1600	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
26 30m E of Ferry St. bridge	1600	155	7	North	Downwind	Crane operating	No observations seen to affect sampling integrity
27 30m E of Ferry St. bridge	1640	155	6	North	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 ($\mu\text{g}/\text{m}^3$)
20m North of Inglis Street and Spar Road intersection	0800 to 0859	7	990
20m North of Inglis Street and Spar Road intersection	0900 to 0959	22	990
100m North of Inglis Street and Spar Road intersection	1000 to 1059	45	990
20m North of Inglis Street and Spar Road intersection	1100 to 1159	56	990
20m North of Inglis Street and Spar Road intersection	1200 to 1259	66	990
40m East of Ferry Street bridge	1300 to 1359	76	990
40m East of Ferry Street bridge	1400 to 1459	91	990
40m South of railway and Ferry Street intersection	1500 to 1559	100	990
40m South of railway and Ferry Street intersection	1600 to 1659	107	990

VOC Monitoring

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