

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1152-07
FROM	Peter Ibrahim	SHIFT:	0630 to 1500
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	16 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0016

**SUBJECT: 13th June, 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 13th of June, 2008. Donald MacIsaac 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:

- Overcast, rain
- Temperature: approximately 10°C
- Wind Direction: North

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. Sampling activities were suspended at 1300 due to precipitation and remained on standby until they were terminated for the day at 1500. 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 Donald MacIsaac and reviewed by Peter Ibrahim and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Peter Ibrahim

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
13th June, 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 30m Northeast of North Tar Pond Gate	0730	155	6	North	Upwind	Background	No observations seen to effect sampling integrity
2 10m Northeast of Ferry St. Bridge	0720	155	6	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
3 10m Northeast of Ferry St. Bridge	0740	155	32	North	Downwind	Machines moving materials	Dust from road to site, High winds
4 30m Northeast of North Tar Pond Gate	0800	155	8	North	Upwind	Background	No observations seen to effect sampling integrity
5 10m Northeast of Ferry St. Bridge	0800	155	23	North	Downwind	Machines moving materials	Dust from road to site, High winds
6 10m Northeast of Ferry St. Bridge	0845	155	37	North	Downwind	Machines moving materials	Dust from road to site, High winds
7 30m Northeast of North Tar Pond Gate	0900	155	15	North	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 10m Northeast of Ferry St. Bridge	0900	155	69	North	Downwind	Machines moving materials	Dust from road to site, High winds
9 10m Northeast of Ferry St. Bridge	0945	155	51	North	Downwind	Machines moving materials	Dust from road to site, High winds
10 30m Northeast of North Tar Pond Gate	1000	155	17	North	Upwind	Background	No observations seen to effect sampling integrity
11 10m Northeast of Ferry St. Bridge	1000	155	36	North	Downwind	Machines moving materials	Dust from road to site, High winds
12 10m Northeast of Ferry St. Bridge	1045	155	34	North	Downwind	Machines moving materials	Dust from road to site, High winds
13 30m Northeast of North Tar Pond Gate	1105	155	6	North	Upwind	Background	No observations seen to effect sampling integrity
14 10m Northeast of Ferry St. Bridge	1100	155	12	North	Downwind	Machines moving materials	No observations seen to effect sampling integrity
15 10m Northeast of Ferry St. Bridge	1130	155	14	North	Downwind	Machines moving materials	Dust from road to site, High winds

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 30m Northeast of North Tar Pond Gate	1200	155	15	North	Upwind	Background	No observations seen to effect sampling integrity
17 10m Northeast of Ferry St. Bridge	1200	155	25	North	Downwind	Machines moving materials	No observations seen to effect sampling integrity
18 10m Northeast of Ferry St. Bridge	1245	155	15	North	Downwind	Machines moving materials	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 ($\mu\text{g}/\text{m}^3$)
10m Northeast of Ferry St. Bridge	0700 to 0759	19	990
10m Northeast of Ferry St. Bridge	0800 to 0859	49	990
10m Northeast of Ferry St. Bridge	0900 to 0959	109	990
10m Northeast of Ferry St. Bridge	1000 to 1059	144	990
10m Northeast of Ferry St. Bridge	1100 to 1159	157	990
10m Northeast of Ferry St. Bridge	1200 to 1259	177	990

VOC Monitoring

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