

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1152-04
FROM	Peter Ibrahim	SHIFT:	0630 to 1745
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	11 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	PS-0013

**SUBJECT: 10th 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 10th of June, 2008. Colin MacIsaac and Peter Ibrahim of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast giving way to sunny periods
- Temperature: approximately 15°C
- Wind Direction: East / Northeast / Northwest / North / Southeast / South / Southwest

Comments: *ALL-TECH was on-Site at 0630 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 Colin 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:

Shawn Bernon shawn@tarpondscleanup.ca, Wilfred Kaiser wilfred@tarpondscleanup.ca, Nancy LeDrew nancy@tarpondscleanup.ca, Trish Magliaro trish@tarpondscleanup.ca, Terry Smith tsmith@toalltech.com, Phyllis Low pjlow@toalltech.com, Dianne Theriault dtheriault@toalltech.com, Darren Gardiner dgardiner@croworld.com, Darren Lawless dlawless@toalltech.com, Kevin Mac Pherson kevinmacp@cbcl.ca, Kathy Harquail kharquail@toalltech.com

Real-time Airborne PM₁₀ Concentration Results
Sydney Tar Ponds Agency – North Pond Pilot Study
10th 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 20m North of STPA building	0715	155	15	East	Upwind	Background	No observations seen to effect sampling integrity
2 20m North of Ferry Street, west of North Pond fence line	0733	155	9	East	Downwind	Excavation and workers setting up barrier	No observations seen to effect sampling integrity
3 20m North of Ferry Street, west of North Pond fence line	0750	155	5	East	Downwind	Excavation and workers setting up barrier	No observations seen to effect sampling integrity
4 50m North of STPA building	0800	155	11	East	Upwind	Background	No observations seen to effect sampling integrity
5 20m North of Ferry Street, west of North Pond fence line	0805	155	6	East	Downwind	Excavation and workers setting up barrier	No observations seen to effect sampling integrity
6 20m North of Ferry Street, west of North Pond fence line	0820	155	4	East	Downwind	Surveying	No observations seen to effect sampling integrity
7 20m Southeast of Inglis Street, Spar Road intersection	0900	155	10	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 10m East of Ferry Street Bridge	0901	155	29	Northeast	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
9 50m East of Ferry Street Bridge	0920	155	51	Northwest	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
10 80m North of Spar Road, East of North Pond fence line	1000	155	12	North	Upwind	Background	No observations seen to effect sampling integrity
11 50m East of Ferry Street Bridge	1017	155	33	Northwest	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
12 50m East of Ferry Street Bridge	1035	155	65	Northwest	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
13 80m North of Spar Road, East of North Pond fence line	1100	155	15	North	Upwind	Background	No observations seen to effect sampling integrity
14 50m East of Ferry Street Bridge	1100	155	41	North	Downwind	Excavator digging, truck moving material	No observations seen to effect sampling integrity
15 50m East of Ferry Street Bridge	1115	155	28	North	Downwind	Excavator digging, truck moving 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 80m North of Spar Road, East of North Pond fence line	1200	155	15	North	Upwind	Background	No observations seen to effect sampling integrity
17 10m East of Ferry Street Bridge	1200	155	23	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
18 10m East of Ferry Street Bridge	1216	155	13	North	Downwind	No activity observed on-site	No observations seen to effect sampling integrity
19 80m North of Spar Road, East of North Pond fence line	1300	155	23	North	Upwind	Background	No observations seen to effect sampling integrity
20 10m East of Ferry Street Bridge	1300	155	20	North	Downwind	Excavators digging, trucks moving material	No observations seen to effect sampling integrity
21 10m East of Ferry Street Bridge	1327	155	18	North	Downwind	Excavators digging, trucks moving material	No observations seen to effect sampling integrity
22 80m North of Spar Road, East of North Pond fence line	1400	155	7	North	Upwind	Background	No observations seen to effect sampling integrity
23 10m East of Ferry Street Bridge	1400	155	14	North	Downwind	Excavators digging, trucks moving 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 20m North of Ferry Street, Walker Street intersection	1438	155	13	East	Downwind	Excavators digging, trucks moving material	No observations seen to effect sampling integrity
25 30m Northeast of Cooling Pond main gate	1500	155	7	East	Upwind	Background	No observations seen to effect sampling integrity
26 20m North of Ferry Street, Walker Street intersection	1500	155	17	East	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
27 20m North of Ferry Street, Walker Street intersection	1516	155	23	East	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
28 30m Northeast of Cooling Pond main gate	1600	155	8	East	Upwind	Background	No observations seen to effect sampling integrity
29 50m North of Ferry Street, Walker Street intersection	1600	155	17	Southeast	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
30 350m North of Ferry Street, Walker Street intersection	1627	155	33	South	Downwind	Bulldozer moving material	No observations seen to effect sampling integrity
31 10m East of Ferry Street Bridge	1700	155	10	Southwest	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
32 150m North of Ferry Street, East of North Pond fence line	1700	155	52	Southwest	Downwind	No activity observed on-site	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 (µg/m ³)	Dust Budget Exceedance Value (µg/m ³)
20m North of Ferry Street, West of North Pond fence line	0700 to 0759	7	990
20m North of Ferry Street, West of North Pond fence line	0800 to 0859	12	990
10m East of Ferry Street Bridge	0900 to 0959	52	990
50m East of Ferry Street Bridge	1000 to 1059	101	990
50m East of Ferry Street Bridge	1100 to 1159	136	990
10m East of Ferry Street Bridge	1200 to 1259	154	990
10m East of Ferry Street Bridge	1300 to 1359	173	990

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
10m East of Ferry Street Bridge	1400 to 1459	187	990
20m North of Ferry Street, Walker Street intersection	1500 to 1559	207	990
50m North of Ferry Street, Walker Street intersection	1600 to 1659	232	990
150m North of Ferry Street, East of North Pond fence line	1700 to 1759	284	990

VOC Monitoring

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