

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
TEL (902) 539-3012
FAX (902) 539-3381
DATE 28th August, 2008

FILE NO. S-1189-03
SHIFT: 1200 to 1730
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. TP2-0003

**SUBJECT: 27th August, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – TP2 Material Processing Facility
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 27th of August, 2008. Kelly Morrison 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:
- Overcast, drizzle
- Temperature: approximately 18°C
- Wind Direction: East

Comments: *ALL-TECH was on-site at 1200 and sampling began as soon as weather conditions were within instrument specifications. 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:

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 pilow@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 – Material Processing Facility
27th August, 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 40m Northeast of Inglis Street and Spar Road intersection	1225	155	15	East	Upwind	Background	No observations seen to effect sampling integrity
2 Railway property, 40m North of Ferry Street	1225	155	16	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
3 Railway property, 40m North of Ferry Street	1240	155	16	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
4 40m Northeast of Inglis Street and Spar Road intersection	1300	155	16	East	Upwind	Background	No observations seen to effect sampling integrity
5 Railway property, 40m North of Ferry Street	1300	155	15	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
6 Railway property, 40m North of Ferry Street	1335	155	19	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
7 40m Northeast of Inglis Street and Spar Road intersection	1400	155	29	East	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 Railway property, 40m North of Ferry Street	1400	155	26	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
9 Railway property, 40m North of Ferry Street	1430	155	26	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
10 40m Northeast of Inglis Street and Spar Road intersection	1500	155	26	East	Upwind	Background	No observations seen to effect sampling integrity
11 Railway property, 40m North of Ferry Street	1500	155	23	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
12 Railway property, 40m North of Ferry Street	1515	155	24	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
13 40m Northeast of Inglis Street and Spar Road intersection	1600	155	29	East	Upwind	Background	No observations seen to effect sampling integrity
14 Railway property, 40m North of Ferry Street	1600	155	25	East	Downwind	Site not visible from sampling location	No observations seen to effect sampling integrity
15 Railway property, 40m North of Ferry Street	1645	155	29	East	Downwind	Site not visible from sampling location	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 ($\mu\text{g}/\text{m}^3$)
Railway property, 40m North of Ferry Street	1200 to 1259	16	990
Railway property, 40m North of Ferry Street	1300 to 1359	33	990
Railway property, 40m North of Ferry Street	1400 to 1459	69	990
Railway property, 40m North of Ferry Street	1500 to 1559	83	990
Railway property, 40m North of Ferry Street	1600 to 1659	110	990

VOC Monitoring

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