

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
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DATE 8th April, 2009

FILE NO. S-1292-06
SHIFT: 1030 to 1830
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. TP6D-0016

**SUBJECT: 8th April, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Access Roads
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 8th of April, 2009. Jennifer Andrews and Alison Giovannetti, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast, periods of rain, sunny with cloudy periods
- Temperature: approximately 8°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on standby until 1030 hours, and sampling began as soon as weather conditions were within instrument specifications. Air monitoring was performed during AECOM's construction activities.*

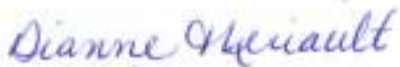
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 – Access Roads
8th April, 2009

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 10m North of Ferry St. and Railway Rd. Intersection	1230	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 30m Northwest of TP2 main entrance	1230	155	43	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 30m Northwest of TP2 main entrance	1245	155	39	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
4 10m North of Ferry St. and Railway Rd. Intersection	1300	155	9	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 30m Northwest of TP2 main entrance	1300	155	37	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
6 30m Northwest of TP2 main entrance	1320	155	40	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
7 10m North of Ferry St. and Railway Rd. Intersection	1400	155	12	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 30m Northwest of TP2 main entrance	1400	155	48	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
9 30m Northwest of TP2 main entrance	1430	155	47	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
10 10m North of Ferry St. and Railway Rd. Intersection	1500	155	15	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 30m Northwest of TP2 main entrance	1500	155	55	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
12 30m Northwest of TP2 main entrance	1535	155	56	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
13 10m North of Ferry St. and Railway Rd. Intersection	1600	155	13	Southwest	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
14 30m Northwest of TP2 main entrance	1600	155	49	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
15 30m Northwest of TP2 main entrance	1615	155	50	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
16 10m North of Ferry St. and Railway Rd. Intersection	1700	155	16	Southwest	Upwind	Background	No observations seen to affect sampling integrity
17 30m Northwest of TP2 main entrance	1700	155	55	Southwest	Downwind	Machines in operation	No observations seen to affect sampling integrity
18 30m Northwest of TP2 main entrance	1745	155	57	Southwest	Downwind	Machines in operation	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 ($\mu\text{g}/\text{m}^3$)
30m Northwest of TP2 main entrance	1200 to 1259	41	990
30m Northwest of TP2 main entrance	1300 to 1359	80	990
30m Northwest of TP2 main entrance	1400 to 1459	128	990
30m Northwest of TP2 main entrance	1500 to 1559	184	990
30m Northwest of TP2 main entrance	1600 to 1659	234	990
30m Northwest of TP2 main entrance	1700 to 1759	290	990

VOC Monitoring

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