

MEMORANDUM

TO Dawn MacNeil, STPA
FROM Dianne Theriault
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DATE 10th March, 2009

FILE NO. S-1279-05
SHIFT: 0730 to 1730
CC: Shawn Bernon, STPA
Wilfred Kaiser, STPA
Terry Smith, ALL-TECH
STPA NO. TP2-0121

**SUBJECT: 10th March, 2009, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Material Processing Facility
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 10th of March, 2009. Nigel MacLean and Shaun Dove, of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:
- Mainly sunny
- Temperature: approximately -1°C
- Wind Direction: North

Comments: *ALL-TECH was on-Site at 0730 hours and sampling began as soon as there was site activity. Air monitoring was performed during AECOM's construction activities.*

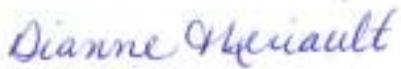
All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 µg/m³.

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 Nigel MacLean 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 – Material Processing Facility
10th March, 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 100m North of TP2 site entrance	0800	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
2 50m West of Inglis and Ferry Street intersection	0800	155	9	North	Downwind	Machine moving materials.	No observations seen to affect sampling integrity
3 50m West of Inglis and Ferry Street intersection	0820	155	7	North	Downwind	Machine moving materials.	No observations seen to affect sampling integrity
4 100m North of TP2 site entrance	0900	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
5 50m West of Inglis and Ferry Street intersection	0900	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
6 50m West of Inglis and Ferry Street intersection	0925	155	8	North	Downwind	Machine moving material	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
7 100m North of TP2 site entrance	1000	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
8 50m West of Inglis and Ferry Street intersection	1000	155	7	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 50m West of Inglis and Ferry Street intersection	1020	155	4	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
10 100m North of TP2 site entrance	1100	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
11 50m West of Inglis and Ferry Street intersection	1100	155	5	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
12 50m West of Inglis and Ferry Street intersection	1115	155	3	North	Downwind	Machine moving material	No observations seen to affect sampling integrity
13 100m North of TP2 site entrance	1200	155	3	North	Upwind	Background	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
14 50m West of Inglis and Ferry Street intersection	1200	155	7	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 50m West of Inglis and Ferry Street intersection	1230	155	2	North	Downwind	Machine moving materials.	No observations seen to affect sampling integrity
16 100m North of TP2 site entrance	1300	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
17 50m West of Inglis and Ferry Street intersection	1300	155	2	North	Downwind	Machines moving material.	No observations seen to affect sampling integrity
18 50m West of Inglis and Ferry Street intersection	1325	155	4	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
19 100m North of TP2 site entrance	1400	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
20 50m West of Inglis and Ferry Street intersection	1400	155	3	North	Downwind	Machines moving material	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
21 50m West of Inglis and Ferry Street intersection	1420	155	3	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
22 100m North of TP2 site entrance	1500	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
23 50m West of Inglis and Ferry Street intersection	1500	155	3	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
24 50m West of Inglis and Ferry Street intersection	1520	155	5	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
25 100m North of TP2 site entrance	1600	155	2	North	Upwind	Background	No observations seen to affect sampling integrity
26 50m West of Inglis and Ferry Street intersection	1600	155	11	North	Downwind	Machines moving material	No observations seen to affect sampling integrity
27 50m West of Inglis and Ferry Street intersection	1645	155	5	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 ($\mu\text{g}/\text{m}^3$)
50m West of Inglis and Ferry Street intersection	0800 to 0859	8	990
50m West of Inglis and Ferry Street intersection	0900 to 0959	15	990
50m West of Inglis and Ferry Street intersection	1000 to 1059	21	990
50m West of Inglis and Ferry Street intersection	1100 to 1159	25	990
50m West of Inglis and Ferry Street intersection	1200 to 1259	30	990
50m West of Inglis and Ferry Street intersection	1300 to 1359	33	990
50m West of Inglis and Ferry Street intersection	1400 to 1459	36	990
50m West of Inglis and Ferry Street intersection	1500 to 1559	40	990
50m West of Inglis and Ferry Street intersection	1600 to 1659	48	990

VOC Monitoring

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