

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1329-14
FROM	Dianne Theriault	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH
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DATE	22 nd June, 2009	STPA NO.	TP2-0182

**SUBJECT: 19th June, 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 19th of June, 2009. Chris MacNeil 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:

- Mainly overcast
- Temperature: approximately 25°C
- Wind Direction: West to Southwest

Comments:

ALL-TECH was on site at 0730 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 180 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 Chris MacNeil 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
19th June, 2009

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 175m South of railway building (N 46° 08.798' W 060° 11.590')	0800	180	8	West	Upwind	Background	No observations seen to affect sampling integrity
2 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	0800	180	34	West	Downwind	Cement trucks, zoom boom operating	No observations seen to affect sampling integrity
3 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	0815	180	20	West	Downwind	Cement trucks, zoom boom operating	No observations seen to affect sampling integrity
4 175m South of railway building (N 46° 08.798' W 060° 11.590')	0900	180	7	West	Upwind	Background	No observations seen to affect sampling integrity
5 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	0900	180	35	West	Downwind	Cement trucks, zoom boom operating	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
6 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	0945	180	16	West	Downwind	Cement trucks, zoom boom operating	No observations seen to affect sampling integrity
7 175m South of railway building (N 46° 08.798' W 060° 11.590')	1000	180	8	West	Upwind	Background	No observations seen to affect sampling integrity
8 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1000	180	14	West	Downwind	Cement trucks unloading	No observations seen to affect sampling integrity
9 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1015	180	17	West	Downwind	Cement trucks unloading	No observations seen to affect sampling integrity
10 175m South of railway building (N 46° 08.798' W 060° 11.590')	1100	180	10	West	Upwind	Background	No observations seen to affect sampling integrity
11 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1100	180	16	West	Downwind	Cement trucks, zoom boom operating	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
12 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1130	180	14	West	Downwind	Cement trucks, zoom boom operating	No observations seen to affect sampling integrity
13 175m South of railway building (N 46° 08.798' W 060° 11.590')	1200	180	11	West	Upwind	Background	No observations seen to affect sampling integrity
14 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1200	180	22	West	Downwind	Cement trucks, zoom boom operating	No observations seen to affect sampling integrity
15 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1220	180	23	West	Downwind	Cement trucks operating	No observations seen to affect sampling integrity
16 175m South of railway building (N 46° 08.798' W 060° 11.590')	1300	180	11	West	Upwind	Background	No observations seen to affect sampling integrity
17 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1300	180	43	West	Downwind	Excavator operating	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
18 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1325	180	27	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
19 175m South of railway building (N 46° 08.798' W 060° 11.590')	1400	180	12	West	Upwind	Background	No observations seen to affect sampling integrity
20 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1400	180	39	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
21 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1445	180	22	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
22 175m South of railway building (N 46° 08.798' W 060° 11.590')	1500	180	17	West	Upwind	Background	No observations seen to affect sampling integrity
23 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1500	180	24	West	Downwind	No activity observed on site	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
24 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1520	180	35	West	Downwind	Excavator operating	No observations seen to affect sampling integrity
25 175m South of railway building (N 46° 08.798' W 060° 11.590')	1600	180	19	West	Upwind	Background	No observations seen to affect sampling integrity
26 90m Southeast of TP2 security gate (N 46° 08.937' W 060° 11.262')	1600	180	33	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
27 15m Northeast of TP2 security trailer (N 46° 08.968' W 060° 11.301')	1630	180	34	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity

Notes: Air sample duration for each monitoring event was 15 minutes.

Summary of Downwind PM₁₀ Action Levels

Average PM ₁₀ Concentration (µg/m ³)	Averaging Period (Hours)	Downwind Action Level (µg/m ³)
27	1	125
21	4	85
20	8	70

VOC Monitoring

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