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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1329-09
FROM	Dianne Theriault	**SHIFT:**	0730 to 1730
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	12th June, 2009		Terry Smith, ALL-TECH
		STPA NO.	**TP2-0177**

SUBJECT: 11th 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 PM_{10}) results for air monitoring performed on the 11th of June, 2009. Shaun Dove 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 cloudy
- Temperature: approximately 11°C
- Wind Direction: Southeast

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 PM_{10} were below the established Site Action Level for this parameter of 155 µg/m^3.

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 PM_{10} Concentration Results
Sydney Tar Ponds Agency – Material Processing Facility
11th June, 2009

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	0800	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
2 200m East of railway building (N 46° 08.875' W 060° 11.635')	0800	155	7	Southeast	Downwind	Worker activity	No observations seen to affect sampling integrity
3 200m East of railway building (N 46° 08.875' W 060° 11.635')	0825	155	7	Southeast	Downwind	Worker activity	No observations seen to affect sampling integrity
4 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	0900	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
5 200m East of railway building (N 46° 08.875' W 060° 11.635')	0900	155	13	Southeast	Downwind	Zoom boom operating	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
6 200m East of railway building (N 46° 08.875' W 060° 11.635')	0925	155	9	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
7 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	1000	155	9	Southeast	Upwind	Background	No observations seen to affect sampling integrity
8 200m East of railway building (N 46° 08.875' W 060° 11.635')	1000	155	9	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 200m East of railway building (N 46° 08.875' W 060° 11.635')	1040	155	25	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
10 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	1100	155	11	Southeast	Upwind	Background	No observations seen to affect sampling integrity
11 200m East of railway building (N 46° 08.875' W 060° 11.635')	1100	155	35	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
12 200m East of railway building (N 46° 08.875' W 060° 11.635')	1125	155	34	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
13 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	1200	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
14 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1200	155	9	Southeast	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1230	155	28	Southeast	Downwind	Worker activity	No observations seen to affect sampling integrity
16 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	1300	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
17 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1300	155	26	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity

Sample No. & Air Monitoring Location	Time of Day	PM_{10} Action Level ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
18 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1315	155	38	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
19 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	1400	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
20 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1400	155	26	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
21 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1420	155	15	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
22 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	1500	155	8	Southeast	Upwind	Background	No observations seen to affect sampling integrity
23 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1500	155	23	Southeast	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 ($\mu g/m^3$)	Average Result ($\mu g/m^3$)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
24 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1520	155	31	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
25 25m Southeast of Inglis St. and Cape Breton St. intersection (N 46° 08.638' W 060° 10.965')	1600	155	10	Southeast	Upwind	Background	No observations seen to affect sampling integrity
26 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1600	155	30	Southeast	Downwind	Excavator moving material	No observations seen to affect sampling integrity
27 80m Northwest of TP2 main entrance (N 46° 08.990' W 060° 11.374')	1640	155	26	Southeast	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 ($\mu g/m^3$)	Dust Budget Exceedance Value ($\mu g/m^3$)
200m East of railway building	0800 to 0859	7	990
200m East of railway building	0900 to 0959	18	990
200m East of railway building	1000 to 1059	35	990
200m East of railway building	1100 to 1159	70	990
80m Northwest of TP2 main entrance	1200 to 1259	89	990
80m Northwest of TP2 main entrance	1300 to 1359	121	990
80m Northwest of TP2 main entrance	1400 to 1459	142	990
80m Northwest of TP2 main entrance	1500 to 1559	169	990
80m Northwest of TP2 main entrance	1600 to 1659	197	990

VOC Monitoring

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