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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1257-11
FROM	Dianne Theriault	**SHIFT:**	0730 to 1730
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	21st January, 2009		Terry Smith, ALL-TECH
		STPA NO.	**TP2-0089**

SUBJECT: 20th January, 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 20th of January, 2009. Colin MacIsaac and Reg Peters, 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 -3°C
- Wind Direction: West

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 Colin MacIsaac 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
20th January, 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 20m North of Ferry Street, Inglis Street intersection	0800	155	20	West	Upwind	Background	No observations seen to affect sampling integrity
2 60m North of Inglis Street, Spar Road intersection	0800	155	4	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 60m North of Inglis Street, Spar Road intersection	0830	155	2	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
4 20m North of Ferry Street, Inglis Street intersection	0900	155	12	West	Upwind	Background	No observations seen to affect sampling integrity
5 60m North of Inglis Street, Spar Road intersection	0900	155	6	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
6 60m North of Inglis Street, Spar Road intersection	0945	155	7	West	Downwind	Machine 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
7 20m North of Ferry Street, Inglis Street intersection	1000	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
8 60m North of Inglis Street, Spar Road intersection	1000	155	6	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
9 60m North of Inglis Street, Spar Road intersection	1030	155	7	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
10 20m North of Ferry Street, Inglis Street intersection	1100	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
11 60m North of Inglis Street, Spar Road intersection	1100	155	8	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
12 60m North of Inglis Street, Spar Road intersection	1140	155	9	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
13 20m North of Ferry Street, Inglis Street intersection	1200	155	11	West	Upwind	Background	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
14 60m North of Inglis Street, Spar Road intersection	1200	155	7	West	Downwind	No activity observed on site	No observations seen to affect sampling integrity
15 60m North of Inglis Street, Spar Road intersection	1245	155	7	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
16 20m North of Ferry Street, Inglis Street intersection	1300	155	11	West	Upwind	Background	No observations seen to affect sampling integrity
17 60m North of Inglis Street, Spar Road intersection	1300	155	6	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
18 60m North of Inglis Street, Spar Road intersection	1335	155	7	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
19 20m North of Ferry Street, Inglis Street intersection	1400	155	10	West	Upwind	Background	No observations seen to affect sampling integrity
20 60m North of Inglis Street, Spar Road intersection	1400	155	7	West	Downwind	Machine 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
21 60m North of Inglis Street, Spar Road intersection	1435	155	8	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
22 20m North of Ferry Street, Inglis Street intersection	1500	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
23 60m North of Inglis Street, Spar Road intersection	1500	155	6	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
24 60m North of Inglis Street, Spar Road intersection	1515	155	9	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
25 20m North of Ferry Street, Inglis Street intersection	1600	155	9	West	Upwind	Background	No observations seen to affect sampling integrity
26 60m North of Inglis Street, Spar Road intersection	1600	155	7	West	Downwind	Machine moving material	No observations seen to affect sampling integrity
27 60m North of Inglis Street, Spar Road intersection	1645	155	7	West	Downwind	Machine moving material	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 ($\mu g/m^3$)
60m North of Inglis Street, Spar Road intersection	0800 to 0859	3	990
60m North of Inglis Street, Spar Road intersection	0900 to 0959	10	990
60m North of Inglis Street, Spar Road intersection	1000 to 1059	17	990
60m North of Inglis Street, Spar Road intersection	1100 to 1159	26	990
60m North of Inglis Street, Spar Road intersection	1200 to 1259	33	990
60m North of Inglis Street, Spar Road intersection	1300 to 1359	40	990
60m North of Inglis Street, Spar Road intersection	1400 to 1459	48	990
60m North of Inglis Street, Spar Road intersection	1500 to 1559	56	990
60m North of Inglis Street, Spar Road intersection	1600 to 1659	63	990

VOC Monitoring

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