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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1312-05
FROM	Dianne Theriault	**SHIFT:**	0630 to 1715
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	6th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	**CO2-STPA-0036**

SUBJECT: 5th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 5th of May, 2009. Alison Giovannetti and Donald MacIsaac 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 8°C
- Wind Direction: North to East

Comments: *ALL-TECH was on-Site at 0630 and sampling began as soon as there was site activity. Air monitoring was performed during SLR`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 – Tar Cell
5th May, 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 300m West of fixed station on Curry's Ln.	0700	155	6	North	Upwind	Background	No observations seen to affect sampling integrity
2 80m North of Cape Breton St. and Victoria Rd. intersection	0700	155	5	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 80m North of Cape Breton St. and Victoria Rd. intersection	0730	155	3	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
4 300m West of fixed station on Curry's Ln.	0800	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
5 80m North of Cape Breton St. and Victoria Rd. intersection	0800	155	1	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
6 80m North of Cape Breton St. and Victoria Rd. intersection	0820	155	1	North	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
7 300m West of fixed station on Curry's Ln.	0900	155	4	North	Upwind	Background	No observations seen to affect sampling integrity
8 80m North of Cape Breton St. and Victoria Rd. intersection	0900	155	4	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
9 80m North of Cape Breton St. and Victoria Rd. intersection	0940	155	6	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
10 300m West of fixed station on Curry's Ln.	1000	155	3	North	Upwind	Background	No observations seen to affect sampling integrity
11 80m North of Cape Breton St. and Victoria Rd. intersection	1000	155	8	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
12 80m North of Cape Breton St. and Victoria Rd. intersection	1030	155	9	North	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
13 300m West of fixed station on Curry's Ln.	1100	155	5	North	Upwind	Background	No observations seen to affect sampling integrity
14 80m North of Cape Breton St. and Victoria Rd. intersection	1100	155	7	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
15 80m North of Cape Breton St. and Victoria Rd. intersection	1120	155	9	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
16 300m West of fixed station on Curry's Ln.	1200	155	7	North	Upwind	Background	No observations seen to affect sampling integrity
17 80m North of Cape Breton St. and Victoria Rd. intersection	1200	155	10	North	Downwind	Excavator moving material	No observations seen to affect sampling integrity
18 80m North of Cape Breton St. and Victoria Rd. intersection	1240	155	11	North	Downwind	Bobcat moving material	No observations seen to affect sampling integrity
19 300m West of fixed station on Curry's Ln.	1300	155	10	North	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
20 80m North of Cape Breton St. and Victoria Rd. intersection	1300	155	10	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
21 80m North of Cape Breton St. and Victoria Rd. intersection	1330	155	10	North	Downwind	No activity observed on site	No observations seen to affect sampling integrity
22 175m East of CO2 security gate	1400	155	13	East	Upwind	Background	No observations seen to affect sampling integrity
23 50m West of CO2 security gate	1400	155	19	East	Downwind	Bobcat moving material	No observations seen to affect sampling integrity
24 50m West of CO2 security gate	1425	155	21	East	Downwind	Bobcat moving material	No observations seen to affect sampling integrity
25 175m East of CO2 security gate	1500	155	10	East	Upwind	Background	No observations seen to affect sampling integrity
26 50m West of CO2 security gate	1500	155	30	East	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
27 50m West of CO2 security gate	1540	155	28	East	Downwind	Bobcat moving material	No observations seen to affect sampling integrity
28 175m East of CO2 security gate	1600	155	8	East	Upwind	Background	No observations seen to affect sampling integrity
29 50m West of CO2 security gate	1600	155	15	East	Downwind	Bobcat moving material	No observations seen to affect sampling integrity
30 50m West of CO2 security gate	1620	155	15	East	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 ($\mu g/m^3$)
80m North of Cape Breton St. and Victoria Rd. intersection	0700 to 0759	4	990
80m North of Cape Breton St. and Victoria Rd. intersection	0800 to 0859	5	990
80m North of Cape Breton St. and Victoria Rd. intersection	0900 to 0959	10	990
80m North of Cape Breton St. and Victoria Rd. intersection	1000 to 1059	19	990
80m North of Cape Breton St. and Victoria Rd. intersection	1100 to 1159	27	990
80m North of Cape Breton St. and Victoria Rd. intersection	1200 to 1259	38	990
80m North of Cape Breton St. and Victoria Rd. intersection	1300 to 1359	48	990
50m West of CO2 security gate	1400 to 1459	68	990
50m West of CO2 security gate	1500 to 1559	97	990
50m West of CO2 security gate	1600 to 1659	112	990

VOC Monitoring

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