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MEMORANDUM

TO	Dawn MacNeil, STPA	**FILE NO.**	S-1193-24
FROM	Dianne Theriault	**SHIFT:**	1130 to 1730
TEL	(902) 539-3012	**CC:**	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	25th September, 2008		Terry Smith, ALL-TECH
		STPA NO.	**PS-0068**

SUBJECT: 25th September, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – South Pond Pilot Study
FINAL REPORT

Attached is a summary of Real-time particulate (as PM_{10}) results for air monitoring performed on the 25th of September, 2008. Kelly Morrison 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:
- Clear skies
- Temperature: approximately 15°C
- Wind Direction: Southwest

Comments: *ALL-TECH was on-Site at 1130 and sampling began as soon as there was site activity. Air monitoring was performed during EarthTech'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 Kelly Morrison 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 – South Pond Pilot Study
25th September, 2008

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 50m Southeast of Ferry and Intercolonial Street intersection	1200	155	1	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 15m Northwest of Spar and Inglis St. intersection	1200	155	5	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
3 15m Northwest of Spar and Inglis St. intersection	1245	155	7	Southwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
4 50m Southeast of Ferry and Intercolonial Street intersection	1300	155	4	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 15m Northwest of Spar and Inglis St. intersection	1300	155	9	Southwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
6 15m Northwest of Spar and Inglis St. intersection	1320	155	9	Southwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
7 50m Southeast of Ferry and Intercolonial Street intersection	1400	155	3	Southwest	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
8 15m Northwest of Spar and Inglis St. intersection	1400	155	10	Southwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
9 15m Northwest of Spar and Inglis St. intersection	1415	155	20	Southwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
10 50m Southeast of Ferry and Intercolonial Street intersection	1500	155	2	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 15m Northwest of Spar and Inglis St. intersection	1500	155	9	Southwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
12 15m Northwest of Spar and Inglis St. Intersection	1525	155	12	Southwest	Downwind	Crane Operating	No observations seen to affect sampling integrity
13 50m Southeast of Ferry and Intercolonial Street intersection	1600	155	3	Southwest	Upwind	Background	No observations seen to affect sampling integrity
14 15m Northwest of Spar and Inglis St. intersection	1600	155	10	Southwest	Downwind	Crane 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
15 15m Northwest of Spar and Inglis St. intersection	1642	155	11	Southwest	Downwind	Crane Operating	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 ($\mu g/m^3$)
15m Northwest of Spar and Inglis St. intersection	1200 to 1259	6	990
15m Northwest of Spar and Inglis St. intersection	1300 to 1359	15	990
15m Northwest of Spar and Inglis St. intersection	1400 to 1459	30	990
15m Northwest of Spar and Inglis St. intersection	1500 to 1559	41	990
15m Northwest of Spar and Inglis St. intersection	1600 to 1659	52	990

VOC Monitoring

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