

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1312-08
FROM	Dianne Theriault	SHIFT:	1000 to 1730
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
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DATE	11 th May, 2009		Terry Smith, ALL-TECH
		STPA NO.	CO2-PM-0041

**SUBJECT: 8th May, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Pug Mill
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 8th of May, 2009. Alison Giovannetti 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 14°C
- Wind Direction: Southwest

Comments: *Air monitoring was delayed until 1000 due to precipitation, and began at 1200 hours when weather conditions were within instrument specifications. Air monitoring was performed during SLR's construction activities.*


All downwind and upwind measurements of PM₁₀ were below the established Site Action Level for this parameter of 155 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 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 PM₁₀ Concentration Results
Sydney Tar Ponds Agency – Tar Cell, Pug Mill
8th May, 2009

Sample No. & Air Monitoring Location	Time of Day	PM₁₀ Action Level (µg/m³)	Average Result (µg/m³)	Wind Direction	Relative Position	Description of Activity	Observations that may affect sample
1 90m Northeast of Hazco trailer on pug mill site	1200	155	3	Southwest	Upwind	Background	No observations seen to affect sampling integrity
2 40m South of Logistec gate on Spar Rd.	1200	155	44	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
3 40m South of Logistec gate on Spar Rd.	1235	155	36	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
4 90m Northeast of Hazco trailer on pug mill site	1300	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
5 40m South of Logistec gate on Spar Rd.	1300	155	12	Southwest	Downwind	No activity observed on site	No observations seen to affect sampling integrity
6 40m South of Logistec gate on Spar Rd.	1345	155	17	Southwest	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
7 90m Northeast of Hazco trailer on pug mill site	1400	155	7	Southwest	Upwind	Background	No observations seen to affect sampling integrity
8 45m South of Logistec gate on Spar Rd.	1400	155	11	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
9 45m South of Logistec gate on Spar Rd.	1420	155	29	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
10 90m Northeast of Hazco trailer on pug mill site	1500	155	6	Southwest	Upwind	Background	No observations seen to affect sampling integrity
11 45m South of Logistec gate on Spar Rd.	1500	155	23	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
12 45m South of Logistec gate on Spar Rd.	1520	155	16	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
13 90m Northeast of Hazco trailer on pug mill site	1600	155	7	Southwest	Upwind	Background	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
14 45m South of Logistec gate on Spar Rd.	1600	155	10	Southwest	Downwind	Equipment operating	No observations seen to affect sampling integrity
15 45m South of Logistec gate on Spar Rd.	1645	155	6	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

Comparison of Downwind Daily Results for Dust Budget

Location	Duration	Dust Budget Value ($\mu\text{g}/\text{m}^3$)	Dust Budget Exceedance Value ($\mu\text{g}/\text{m}^3$)
40m South of Logistec gate on Spar Rd.	1200 to 1259	40	990
40m South of Logistec gate on Spar Rd.	1300 to 1359	55	990
45m South of Logistec gate on Spar Rd.	1400 to 1459	75	990
45m South of Logistec gate on Spar Rd.	1500 to 1559	95	990
45m South of Logistec gate on Spar Rd.	1600 to 1659	103	990

VOC Monitoring

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