

MEMORANDUM

TO	Dawn MacNeil, STPA	FILE NO.	S-1151-05
FROM	Peter Ibrahim	SHIFT:	0730 to 1715
TEL	(902) 539-3012	CC:	Shawn Bernon, STPA
FAX	(902) 539-3381		Wilfred Kaiser, STPA
DATE	11 th June, 2008		Terry Smith, ALL-TECH
		STPA NO.	CO6II-0005

**SUBJECT: 10th June, 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Infrastructure Investigation
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 10th of June, 2008. Tyler Rowe and Alex Tchiguirev of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities.

Weather conditions on the day of sampling:

- Overcast giving way to clear skies
- Temperature: approximately 15°C
- Wind Direction: East to North

Comments: *ALL-TECH was on-Site at 0730 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 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 Tyler Rowe and reviewed by Peter Ibrahim and Dianne Theriault. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Peter Ibrahim,
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 – Coke Ovens Infrastructure Investigation
10th June, 2008

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 10m North of Coke Ovens security trailer	0840	155	10	East	Upwind	Background	No observations seen to effect sampling integrity
2 20m East of Victoria Road bridge	0840	155	8	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
3 10m North of Coke Ovens security trailer	0900	155	10	East	Upwind	Background	No observations seen to effect sampling integrity
4 20m East of Victoria Road bridge	0900	155	9	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
5 20m East of Victoria Road bridge	0925	155	11	East	Downwind	Excavator operating	No observations seen to effect sampling integrity
6 20m East of Victoria Road bridge	1000	155	10	Northwest	Upwind	Background	No observations seen to effect sampling integrity
7 100m North of Vulcan Avenue, 200m East of Victoria Road	1000	155	11	Northwest	Downwind	Excavator operating	No observations seen to effect 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
8 100m North of Vulcan Avenue, 200m East of Victoria Road	1035	155	9	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
9 20m East of Victoria Road bridge	1100	155	12	Northwest	Upwind	Background	No observations seen to effect sampling integrity
10 100m North of Vulcan Avenue, 200m East of Victoria Road	1100	155	10	Northwest	Downwind	Excavator operating	No observations seen to effect sampling integrity
11 100m North of Vulcan Avenue, 150m East of Victoria Road	1145	155	9	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
12 200m East of Spar Road traffic lights	1200	155	10	Northwest	Upwind	Background	No observations seen to effect sampling integrity
13 100m North of Vulcan Avenue, 150m East of Victoria Road	1200	155	6	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
14 25m East of Salvation Army	1240	155	6	North	Downwind	Excavator operating	No observations seen to effect 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
15 Frederick Street, 25m West of Lingan Road	1300	155	9	North	Upwind	Background	No observations seen to effect sampling integrity
16 25m East of Salvation Army	1300	155	6	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
17 25m East of Salvation Army	1320	155	9	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
18 Frederick Street, 25m West of Lingan Road	1400	155	21	North	Upwind	Background	No observations seen to effect sampling integrity
19 25m East of Salvation Army	1400	155	7	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
20 25m East of Salvation Army	1440	155	6	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
21 Frederick Street, 25m West of Lingan Road	1500	155	21	North	Upwind	Background	No observations seen to effect sampling integrity
22 25m East of Salvation Army	1500	155	6	North	Downwind	Excavator operating	No observations seen to effect 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
23 25m East of Salvation Army	1520	155	5	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
24 Frederick Street, 25m West of Lingan Road	1600	155	9	North	Upwind	Background	No observations seen to effect sampling integrity
25 25m East of Salvation Army	1600	155	7	North	Downwind	Excavator operating	No observations seen to effect sampling integrity
26 25m East of Salvation Army	1630	155	9	North	Downwind	No activity observed on-site	No observations seen to effect 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 ($\mu\text{g}/\text{m}^3$)
20m East of Victoria Road bridge	0800 to 0859	8	990
20m East of Victoria Road bridge	0900 to 0959	18	990
100m North of Vulcan Avenue, 200m East of Victoria Road	1000 to 1059	28	990
100m North of Vulcan Avenue, 200m / 150 East of Victoria Road	1100 to 1159	38	990
100m North of Vulcan Avenue, 150m East of Victoria Road / 25m East of Salvation Army	1200 to 1259	44	990
25m East of Salvation Army	1300 to 1359	52	990
25m East of Salvation Army	1400 to 1459	59	990
25m East of Salvation Army	1500 to 1559	65	990
25m East of Salvation Army	1600 to 1659	73	990

VOC Monitoring

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