

MEMORANDUM

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|-------------|-----------------------------|-----------------|---|
| TO | Dawn MacNeil, STPA | FILE NO. | S-1330-10 |
| FROM | Dianne Theriault | SHIFT: | 0630 to 1830 |
| TEL | (902) 539-3012 | CC: | Shawn Bernon, STPA Wilfred Kaiser, STPA Terry Smith, ALL-TECH |
| FAX | (902) 539-3381 | | |
| DATE | 16 th June, 2009 | STPA NO. | CO2-NSL-0074 |

**SUBJECT: 15th June, 2009 Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Tar Cell, Sysco Site
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 15th of June, 2009. Jeff King, Jennifer Andrews, Tyler Rowe and Dwayne Timmons 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 20°C
- Wind Direction: Southeast to Southwest to South

Comments: *ALL-TECH was on-Site at 0630 hours 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 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 Dwayne Timmons 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, Sysco Site
15th June, 2009

| 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 |
|---|-------------|--|-------------------------------------|----------------|-------------------|---|---|
| 1 150m Northwest of Ferry St. and Inglis St. intersection (N46°08.947' W060°11.248') | 0700 | 155 | 9 | Southeast | Upwind | Background | No observations seen to affect sampling integrity |
| 2 120m Northeast of railway building (N46°08.971' W060°11.813') | 0700 | 155 | 8 | Southeast | Downwind | Activity not visible from sample location | No observations seen to affect sampling integrity |
| 3 120m Northeast of railway building (N46°08.971' W060°11.813') | 0725 | 155 | 8 | Southeast | Downwind | Activity not visible from sample location | No observations seen to affect sampling integrity |
| 4 150m Northwest of Ferry St. and Inglis St. intersection (N46°08.947' W060°11.248') | 0800 | 155 | 6 | Southeast | Upwind | Background | No observations seen to affect sampling integrity |
| 5 120m Northeast of railway building (N46°08.971' W060°11.813') | 0800 | 155 | 6 | Southeast | Downwind | Activity not visible from sample location | No observations seen to affect sampling integrity |
| 6 120m Northeast of railway building (N46°08.971' W060°11.813') | 0835 | 155 | 8 | Southeast | Downwind | Activity not visible from sample location | 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 Railway property, 300m North of Ferry St. (N46°08.874' W060°11.663') | 0900 | 155 | 6 | Southwest | Upwind | Background | No observations seen to affect sampling integrity |
| 8 250m South of old incinerator (N46°09.363' W060°11.788') | 0900 | 155 | 40 | Southwest | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 9 250m South of old incinerator (N46°09.363' W060°11.788') | 0940 | 155 | 91 | Southwest | Downwind | Dump trucks operating | Dust from trucks entering, leaving site |
| 10 Railway property, 300m North of Ferry St. (N46°08.874' W060°11.663') | 1000 | 155 | 9 | Southwest | Upwind | Background | No observations seen to affect sampling integrity |
| 11 250m South of old incinerator (N46°09.363' W060°11.788') | 1000 | 155 | 56 | Southwest | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 12 250m South of old incinerator (N46°09.363' W060°11.788') | 1045 | 155 | 10 | Southwest | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 13 Railway property, 300m North of Ferry St. (N46°08.874' W060°11.663') | 1100 | 155 | 8 | 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 250m South of old incinerator (N46°09.363' W060°11.788') | 1100 | 155 | 20 | Southwest | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 15 250m South of old incinerator (N46°09.363' W060°11.788') | 1120 | 155 | 20 | Southwest | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 16 Railway property, 300m North of Ferry St. (N46°08.874' W060°11.663') | 1200 | 155 | 7 | Southwest | Upwind | Background | No observations seen to affect sampling integrity |
| 17 250m South of old incinerator (N46°09.363' W060°11.788') | 1200 | 155 | 45 | Southwest | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 18 250m South of old incinerator (N46°09.363' W060°11.788') | 1235 | 155 | 15 | Southwest | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 19 Railway property, 300m North of Ferry St. (N46°08.874' W060°11.663') | 1300 | 155 | 7 | Southwest | Upwind | Background | No observations seen to affect sampling integrity |
| 20 250m South of old incinerator (N46°09.363' W060°11.788') | 1300 | 155 | 14 | Southwest | Downwind | Dump trucks operating | 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 |
|--|-------------|--|-------------------------------------|----------------|-------------------|-------------------------|---|
| 21 255m South of old incinerator (N46°09.358' W060°11.783') | 1345 | 155 | 35 | South | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 22 Railway property, 100m North of Ferry St. (N46°08.794' W060°11.596') | 1400 | 155 | 20 | South | Upwind | Background | No observations seen to affect sampling integrity |
| 23 255m South of old incinerator (N46°09.358' W060°11.783') | 1400 | 155 | 19 | South | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 24 255m South of old incinerator (N46°09.358' W060°11.783') | 1435 | 155 | 9 | South | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 25 Railway property, 100m North of Ferry St. (N46°08.794' W060°11.596') | 1500 | 155 | 9 | South | Upwind | Background | No observations seen to affect sampling integrity |
| 26 255m South of old incinerator (N46°09.358' W060°11.783') | 1500 | 155 | 16 | South | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 27 255m South of old incinerator (N46°09.358' W060°11.783') | 1525 | 155 | 57 | South | Downwind | Dump trucks operating | 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 |
|--|-------------|--|-------------------------------------|----------------|-------------------|---|---|
| 28 Railway property, 100m North of Ferry St. (N46°08.794' W060°11.596') | 1600 | 155 | 8 | South | Upwind | Background | No observations seen to affect sampling integrity |
| 29 255m South of old incinerator (N46°09.358' W060°11.783') | 1600 | 155 | 53 | South | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 30 255m South of old incinerator (N46°09.358' W060°11.783') | 1640 | 155 | 52 | South | Downwind | Dump trucks operating | No observations seen to affect sampling integrity |
| 31 Railway property, 100m North of Ferry St. (N46°08.794' W060°11.596') | 1700 | 155 | 8 | South | Upwind | Background | No observations seen to affect sampling integrity |
| 32 255m South of old incinerator (N46°09.358' W060°11.783') | 1700 | 155 | 36 | South | Downwind | Activity not visible from sample location | No observations seen to affect sampling integrity |
| 33 255m South of old incinerator (N46°09.358' W060°11.783') | 1745 | 155 | 5 | South | Downwind | No activity observed on site | No observations seen to affect sampling integrity |

Notes: Air sample duration for each monitoring event was 15 minutes.

Summary of Downwind PM₁₀ Action Levels

| Average PM ₁₀ Concentration (µg/m ³) | Averaging Period (Hours) | Downwind Action Level (µg/m ³) |
|---|--------------------------|--|
| 8 | 1 | 125 |
| 28 | 4 | 85 |
| 25 | 8 | 70 |

VOC Monitoring

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