

MEMORANDUM

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|-------------|------------------------------|-----------------|-----------------------|
| TO | Dawn MacNeil, STPA | FILE NO. | S-1101-01 |
| FROM | Grant Harrigan | SHIFT: | 1445 to 1730 |
| TEL | (902) 539-3012 | CC: | Shawn Bernon, STPA |
| FAX | (902) 539-3381 | | Wilfred Kaiser, STPA |
| DATE | 26 th March, 2008 | | Terry Smith, ALL-TECH |
| | | STPA NO. | COB-038 |

**SUBJECT: 25th March 2008, Real-time Air Monitoring Results
Sydney Tar Ponds Agency – Coke Ovens Brook
FINAL REPORT**

Attached is a summary of Real-time particulate (as PM₁₀) results for air monitoring performed on the 25th of March, 2008. Grant Harrigan of ALL-TECH Environmental Services Cape Breton Limited (ALL-TECH), performed all air monitoring activities for the Coke Oven Brook.

Weather conditions on the day of sampling:

- Overcast
- Temperature: approximately -6°C (data unavailable from Environment Canada)
- Wind Direction: Northeast to Northwest to North

Comments: *ALL-TECH was on-Site at 1445 and sampling began as soon as there was Site activity. Air monitoring was performed during Municipal construction activities.*

All downwind and upwind measurements of PM₁₀ were well 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), TVOC sampling is halted and resumes after the precipitation has ended.

This report has been prepared by Grant Harrigan. If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,



Grant Harrigan, 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 – Coke Ovens Brook
 25th March, 2008**

| 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 15m North of Landfill | 1520 | 155 | 11 | Northeast | Upwind | Background | No observations seen to effect sampling integrity |
| 2 5m Southwest of foot bridge over Coke Ovens Brook | 1545 | 155 | 9 | Northeast | Downwind | Excavator moving material | No observations seen to effect sampling integrity |
| 3 5m Southwest of foot bridge over Coke Ovens Brook | 1600 | 155 | 7 | Northeast | Downwind | Excavator moving around area | No observations seen to effect sampling integrity |
| 4 15m North of Landfill | 1625 | 155 | 9 | Northeast | Upwind | Background | No observations seen to effect sampling integrity |
| 5 5m Southwest of foot bridge over Coke Ovens Brook | 1645 | 155 | 1 | Northeast | 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 ($\mu\text{g}/\text{m}^3$) |
|---|--------------|--|---|
| 5m Southwest of foot bridge over Coke Ovens Brook | 1545 to 1615 | 8 | 990 |
| 5m Southwest of foot bridge over Coke Ovens Brook | 1645 to 1700 | 1 | 990 |

VOC Monitoring

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