

Appendix G10

2016 Air Quality and Dustfall Monitoring Report



MEADOWBANK GOLD PROJECT

**2016 Air Quality and Dustfall
Monitoring Report**

In Accordance with NIRB Project Certificate No.004

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Division

March, 2017

EXECUTIVE SUMMARY

The 2016 air quality and dustfall monitoring program at Meadowbank was conducted according to the Air Quality and Dustfall Monitoring Plan - Version 2 (November, 2013).

The objective of the 2016 program was to measure dustfall, NO₂, and/or suspended particulates (TSP, PM₁₀, PM_{2.5}) at four monitoring locations around the Meadowbank site. Locations were established in 2011 in consultation with Environment Canada.

Results obtained for the measured parameters were compared to Government of Nunavut (GN) Environmental Guidelines for Ambient Air Quality (October, 2011) for TSP, PM_{2.5} and NO₂; BC Air Quality Objectives (August, 2013) for PM₁₀; and Alberta Ambient Air Quality Guidelines (August, 2013) for dustfall. The Canadian Ambient Air Quality Standards for PM_{2.5} (2015) are also referenced.

No TSP samples exceeded the relevant 24-h GN standard of 120 µg/m³, nor did annual average TSP values exceed the GN guideline of 60 µg/m³. For PM₁₀, no samples exceeded the BC Air Quality Objective of 50 µg/m³ for the 24-h average. For PM_{2.5}, no samples exceeded the GN guideline of 30 µg/m³ or the Canadian Ambient Air Quality Standard of 28 µg/m³ for the 24-h average.

The Alberta recreational area guideline for dustfall was exceeded in one out of 47 samples. While the applicability of these guidelines is not well defined, there are no recreational or residential users within vicinity of the minesite and exceedance of one sample is not expected to result in significant aesthetic or nuisance concerns. The industrial area guideline was not exceeded in any sample.

The GN annual average standard for NO₂ of 32 ppb was not exceeded, with a maximum monthly average of 2.4 ppb.

Weather data collected onsite in 2016 are provided in Appendix A.

Estimated greenhouse gas emissions for the Meadowbank site as reported to Environment Canada's Greenhouse Gas Emissions Reporting Program in 2016 were 184,223 tonnes CO₂ equivalent, which is similar to the value obtained in 2015 (187,280 tonnes CO₂ equivalent).

A summary of incinerator stack testing results is provided. The average concentration of mercury was <0.46 µg/Rm³ @11%O₂, which is below the GN standard of 20 µg/Rm³. Measured concentrations of dioxins and furans met the GN standard (80 pg TEQ / Rm³ @ 11 % v/v O₂) in two of three tests, and exceeded this value by 12.5% in one test.

Overall, there are no apparent trends towards increasing air quality concerns at the Meadowbank site. Incinerator stack testing will be conducted again in 2017, 2018, and 2019 to confirm the source of the SVOC exceedance has been correctly identified and remediated.

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SECTION 1 • INTRODUCTION

1.1 BACKGROUND AND OBJECTIVES

Since November, 2011, Agnico Eagle Mines Ltd. has conducted outdoor dust and air quality monitoring at the Meadowbank site, near Baker Lake, Nunavut, as required under NIRB Project Certificate No. 004. Monitoring in 2016 followed the Air Quality and Dustfall Monitoring Plan - Version 2 (November, 2013). The objective of this program is to monitor ambient air quality around the mine site perimeter, with the goal of verifying compliance with relevant environmental standards.

The parameters measured in 2016, in accordance with the Project Certificate, were suspended particulates (TSP, PM₁₀, PM_{2.5}), NO₂ and dustfall (settleable particulate matter). As described in the Air Quality and Dustfall Monitoring Plan, dustfall was measured approximately monthly and rates were normalized to 30 days; suspended particulates were measured over 24 h on a six day cycle; and NO₂ was measured over approximately one month periods.

This report also provides weather data as collected through the onsite weather station (Section 5), greenhouse gas emissions data as required by Environment Canada's Greenhouse Gas Emissions Reporting Program (GHGRP) (Section 6), and a summary of incinerator stack testing as conducted under Meadowbank's Incinerator Waste Management Plan (Agnico, 2014) (Section 7).

1.2 MONITORING LOCATIONS

Monitoring locations were determined in consultation with Environment Canada in 2011. One station was moved in 2012 due to changes in the location of the Vault haul road (see 2012 Annual Report – Air Quality and Dust Monitoring Report). UTM coordinates are provided in Table 1, and locations are shown in relation to minesite features in Figure 1.

Table 1. UTM coordinates and dates of measurement for the Meadowbank air quality and dustfall monitoring locations.

| Monitoring Location | Measured Parameters | Easting | Northing |
|---------------------|--|---------|----------|
| DF-1 | TSP, PM ₁₀ , PM _{2.5} , NO ₂ , dustfall | 636850 | 7217663 |
| DF-2 | TSP, PM ₁₀ , PM _{2.5} , NO ₂ , dustfall | 637895 | 7213049 |
| DF-3 | Dustfall | 639599 | 7213198 |
| DF-4 | Dustfall | 639233 | 7217074 |

1.2.1 DF-1

Station DF-1 is located next to the explosive storage area (emulsion plant), and approximately 500 m north of the all-weather access road. All parameters (TSP, PM₁₀ and PM_{2.5}, NO₂ and dustfall) were monitored at this location from January through December, 2016.

1.2.2 DF-2

Station DF-2 is located at the northern corner of South Camp Island, near the TCG contractor area. All parameters (TSP, PM₁₀ and PM_{2.5}, NO₂ and dustfall) were monitored at this location from January through December, 2016.

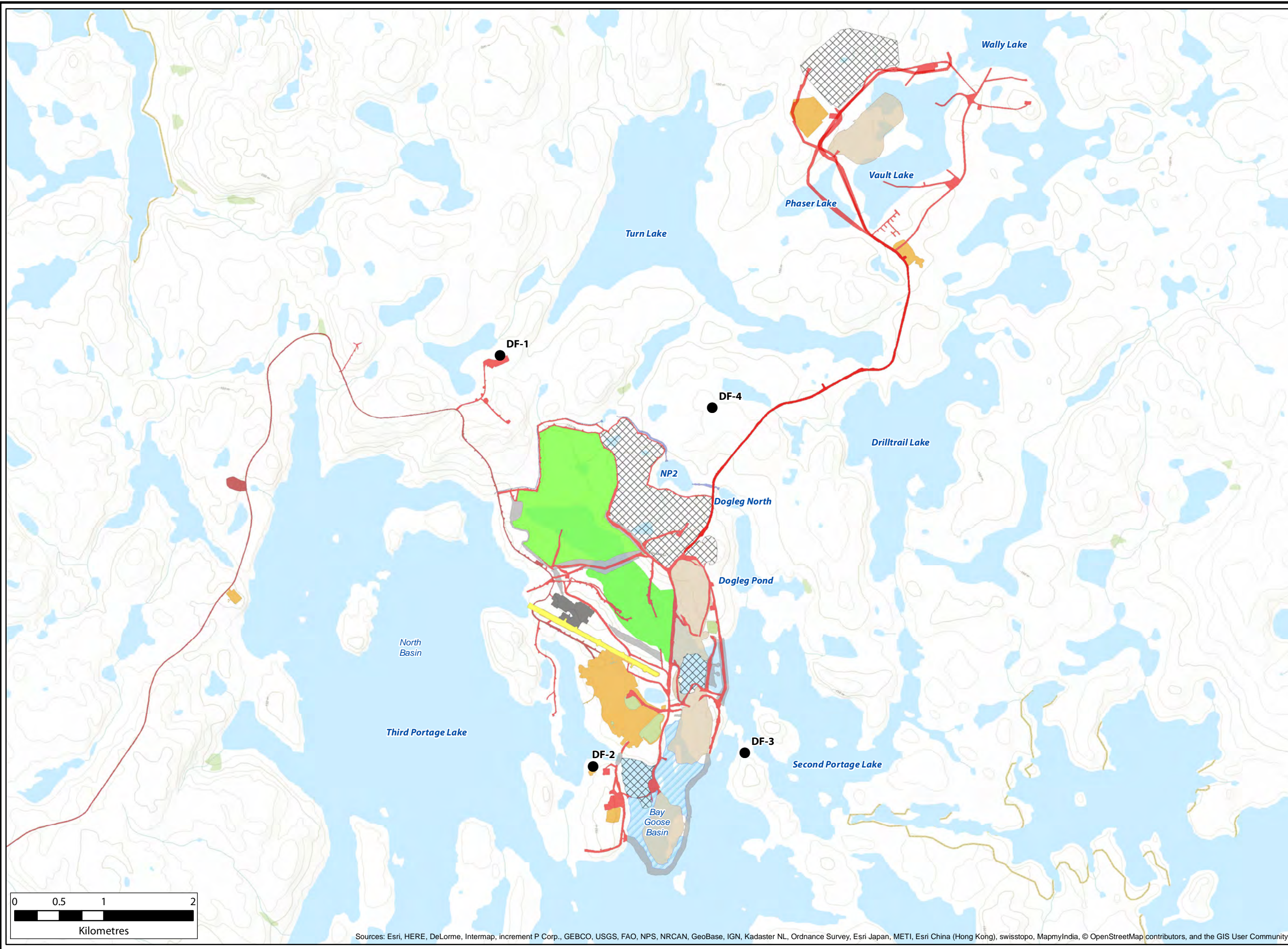
1.2.3 DF-3

Station DF-3 is approximately 1,800 m east of the East Dike. Dustfall only was monitored at this location from January through December, 2016.

1.2.4 DF-4

Station DF-4 is approximately 1,500 m southwest of Vault Pit. The original location of this monitoring station was chosen before the beginning of the construction of the Vault Road. Realignment of the road during construction placed the station within 10 feet of the road. Therefore, Agnico re-positioned Station DF-4 approximately 480 m to the north-west on February 29, 2012 to be representative of the originally intended location relative to the road.

Dustfall only was monitored at this location from January through December, 2016.



Legend

- Air Quality & Dust Monitoring Location
- Mine Plan (2015)**
- Quarry
- AWP/AR Quarry
- ▨ Dewatered Lake
- Tailings Storage Facility
- Roads
- AWP/AR
- Dikes
- Diversion Ditch
- Stockpiles
- Pits
- Facility
- Airstrip
- ▨ Waste Dump

Air Quality & Dust Monitoring Locations



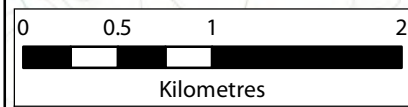
PROJECT: DA11-062-06

CLIENT: Agnico-Eagle Mines Ltd., Meadowbank Div.

| | |
|--|------------------|
| | DATE: MARCH 2016 |
| | SCALE: 1:40,000 |
| | DRAWN BY: LC |
| | CHECKED BY: |

FIGURE: 1

The information displayed on this map has been compiled from various sources. While every effort has been made to accurately depict the information, this map should not be relied on as being a precise indicator of locations, features, or roads, nor as a guide to navigation. MNR data provided by Queen's Printer of Ontario. Use of the data in any derivative product does not constitute an endorsement by the MNR or the Ontario Government of such products.



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

SECTION 2 • REGULATORY LIMITS

Data collected from the air quality and dustfall monitoring program at Meadowbank was compared to the available Government of Nunavut Environmental Guidelines for Ambient Air Quality (October, 2011). Guidelines for the measured parameters are provided in Table 2.

Table 2. Government of Nunavut Environmental Guidelines for Ambient Air Quality (October, 2011) for the parameters of concern at Meadowbank. All values are for data normalized to standard conditions of 25°C and 101.3 kPa.

| Parameter | Time Frame | Guideline | |
|--|------------------------|-------------------|-----|
| | | µg/m ³ | ppb |
| Fine Particulate Matter (PM _{2.5}) | 24-h average | 30 | |
| Total Suspended Particulate (TSP) | 24-h average | 120 | |
| | Annual geometric mean | 60 | |
| Nitrogen Dioxide (NO ₂) | 1-h average | 400 | 213 |
| | 24-h average | 200 | 106 |
| | Annual arithmetic mean | 60 | 32 |

In 2015, the Canadian Council of Ministers of the Environment adopted new Canadian Ambient Air Quality Standards for PM_{2.5}. Although these have not yet been incorporated into Nunavut's guidelines, the published 24-h value for PM_{2.5} of 28 µg/m³ and annual average of 10 µg/m³ are addressed here for reference. These values represent voluntary objectives.

No GN standard is available for coarse particulate matter (PM₁₀) so results were compared to the BC Air Quality Objective (August, 2013) of 50 µg/m³.

Likewise, no standards for dustfall are available for Nunavut. Results of the dustfall analysis were compared to the Alberta Environment Department recreational area guideline for total dustfall (August, 2013) of 0.53 mg/cm²/30d and commercial/industrial guideline of 1.58 mg/cm²/30d, to provide context.

For all parameters and locations, trends over time were assessed.

SECTION 3 • MONITORING METHODS

3.1 TSP, PM₁₀, PM_{2.5}

In 2016, Agnico Eagle field staff sampled suspended particulates (TSP, PM₁₀, PM_{2.5}) at the two locations previously described for 24-h periods every six days using Partisol Plus Model 2025 Sequential Air Samplers (TSP) and Partisol Plus Model 2025-D Dichotomous Sequential Air Samplers (PM_{2.5} and PM_{coarse}). Partisol samplers draw in a stream of ambient air at a controlled flow rate, and particulates are collected on a pre-weighed filter supplied by an accredited laboratory. The exposed filter is then shipped back to the laboratory and re-weighed to measure the total accumulated particulates. Calculations for TSP, PM₁₀ and PM_{2.5} were performed according to the Partisol operating manual, as follows.

TSP is calculated as:

$$\text{TSP} = M_{\text{TSP}}/V$$

Where: TSP = mass concentration of particulates (µg/m³)

M_{TSP} = final mass of TSP filter – initial mass of filter (µg/filter)

V = volume of air drawn in during the sampling period (~24 m³)

Since the dichotomous unit splits the intake air stream to determine PM_{2.5} and PM_{coarse} (PM_{10-2.5}), the volume of air is different for each filter. Calculations are performed as follows:

PM_{2.5} is calculated as:

$$\text{PM}_{2.5} = M_{2.5}/V_{2.5}$$

Where: PM_{2.5} = mass concentration of particulates (µg/m³)

$M_{2.5}$ = final mass of PM_{2.5} filter – initial mass of filter (µg/filter)

$V_{2.5}$ = volume of air drawn through the PM_{2.5} filter during the sampling period (~21.7 m³)

And PM_{coarse} is calculated as:

$$\text{PM}_{\text{coarse}} = M_{\text{coarse}}/V_{\text{total}} - \text{PM}_{2.5}(V_{\text{coarse}}/V_{\text{total}})$$

Where: PM_{coarse} = mass concentration of particulates (µg/m³)

M_{coarse} = final mass of PM_{coarse} filter – initial mass of filter (µg/filter)

V_{total} = total volume of air drawn into unit during sampling (~24m³)

V_{coarse} = volume of air drawn through the PM_{coarse} filter during the sampling period (~2.4 m³)

Concentration of PM₁₀ is then calculated as PM_{coarse} + PM_{2.5}.

For comparison to Government of Nunavut Ambient Air Quality Guidelines (2011), concentrations of particulates need to be calculated using air volumes normalized to 25°C and 101.3kPA (standard

temperature and pressure; STP). Standardized volumes were calculated from average temperature and pressure recorded by the Partisol unit during the sampling period, whenever possible. These values were available for all dates except March 13, July 29, and August 4, 10, & 16 for the dichotomous unit at DF-1, when the data was not properly downloaded. Actual sampled volumes were used for those dates. Estimates of suspended particulate concentrations using non-standardized volumes are expected to be slightly conservative (higher than actual), since air temperatures are almost always colder than 25°C.

In addition, the air sampling unit is housed in an insulated container because winter temperatures inhibit operation. This is standard practice in northern climates. Since the unit's ambient temperature sensor is warmer than actual air temperature for much of the year, intake volumes are inflated compared to calculated volumes, resulting in conservative estimates of particulate concentrations.

3.2 DUSTFALL

Dustfall was collected in open vessels containing a purified liquid matrix over one month periods (approximately) at each of the four locations. Particles are deposited and retained in the liquid, which was then analyzed for total and fixed (non-combustible) dustfall. Calculated dustfall rates were normalized to 30 days ($\text{mg}/\text{cm}^2/30$ days). Dustfall canisters were provided by and analyzed by an accredited laboratory (Maxxam Analytics).

3.3 NO₂

Concentrations of NO₂ by volume (ppb) were analyzed over one month periods (approximately 30 days) using a passive sampling device provided by Maxxam Analytics. No monitoring was proposed for other gaseous pollutants because of low concentrations predicted in pre-construction dispersion modelling (Cumberland, 2005).

The annual average NO₂ concentration by volume was calculated from the monthly data for comparison against the relevant standard.

SECTION 4 • MONITORING RESULTS

Laboratory certificates for all analytical results are provided in Appendix B.

4.1 TSP, PM₁₀, PM_{2.5}

Sampling dates and 24-h average concentrations of TSP, PM₁₀ and PM_{2.5} are shown in Figures 2 – 4.

While data was unavailable for several months in 2013 due to maintenance requirements, Agnico Eagle's Environmental Technicians are now able to provide onsite maintenance and calibration, so units were nearly fully operational in 2016.

For DF-1, TSP filters for March 31 and April 6 were excluded from analyses due to snow accumulation at the intake. On July 17, 23 and 29 a power failure in the TSP unit resulted in no sample collection, and the unit was brought in for calibration from November 26 to December 2. The dichotomous unit was calibrated in March, 2016.

For DF-2, a power failure occurred on January 1 and 7, and calibration was performed on February 12, so PM_{2.5} and PM₁₀ filters were not available for these dates. Snow was noted in the TSP filter for April 12, so this filter was also excluded from analyses. A power failure occurred in both units on March 13, so no results were available.

Additionally, in 27 out of 52 samples at DF-1 and 15 out of 54 samples at DF-2, TSP results were lower than PM₁₀ results. A similar frequency of exceedances has been observed in previous years. While not technically possible since PM₁₀ is a subset of TSP, this has been observed by others with the same Partisol samplers over a similar range of concentrations (e.g. Doris North - Rescan, 2009). This may be occurring as a result of two compounding sources of reduced precision in PM₁₀ measurements. Firstly, PM₁₀ is calculated as PM_{coarse} + PM_{2.5} (i.e. two filters), increasing the potential sources of error compared to analysis of a single filter. Further, measured concentrations of PM_{2.5} are generally very low, and frequently less than 5x the method detection limit, especially at DF-1 (41 out of 54 samples). Since all results were lower than the GN standard, they are not handled separately in the dataset.

As in previous years, TSP concentrations were low, with no samples exceeding the GN 24-h standard of 120 µg/m³. Additional actions were recommended to help reduce dust levels onsite in 2013, and the maximum observed TSP concentration has since been reduced from 459 µg/m³.

The annual geometric mean concentrations of TSP at DF-1 and DF-2 were 3.8 and 6.4 µg/m³, respectively. These estimates are well below the annual GN guideline of 60 µg/m³, and are lower than values observed in previous years (8 and 12 µg/m³ in 2012, 4.6 and 14.0 µg/m³ in 2013, and 6.5 and 12.8 µg/m³ in 2014, 5.1 and 9.8 µg/m³ in 2015).

The highest PM₁₀ concentrations were generally observed between May and November. No samples exceeded the BC Air Quality Objective of 50 µg/m³ for 24-h average PM₁₀.

No samples exceeded the GN guideline of 30 µg/m³ for 24-h average PM_{2.5}, or the Canadian Ambient Air Quality Standard of 28 µg/m³. Annual average concentrations of PM_{2.5} were 0.6 (n = 61) and 1.7 µg/m³ (n = 57) at DF-1 and DF-2, respectively, which are well below the Canadian Ambient Air Quality Standard for annual average PM_{2.5} of 10 µg/m³.

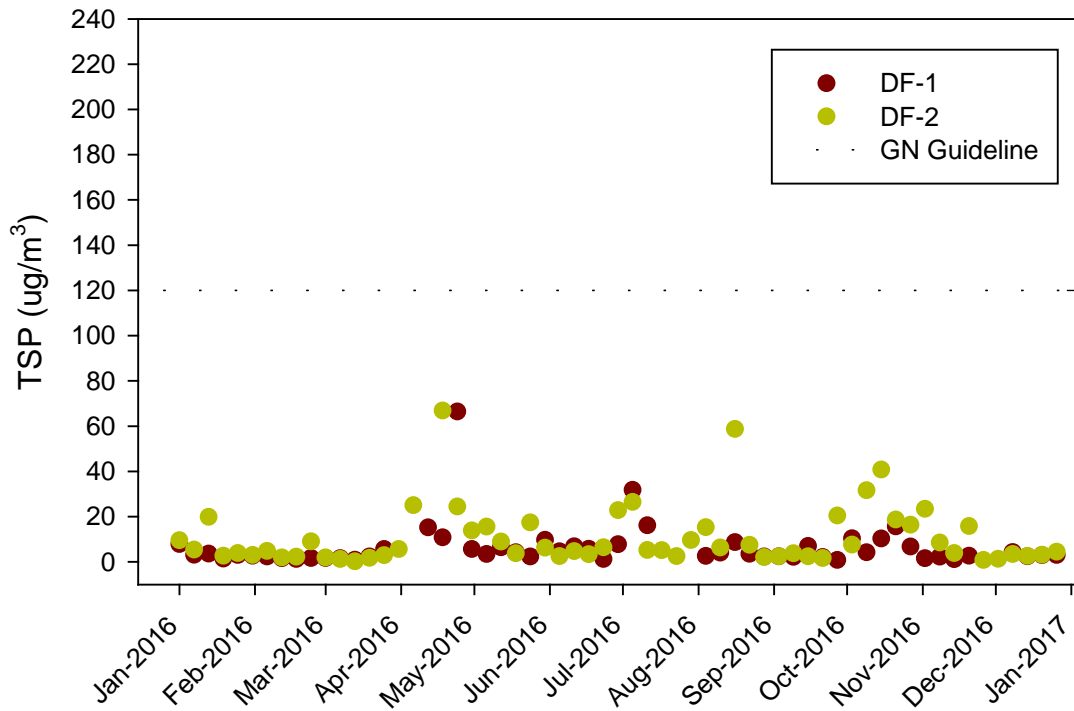


Figure 2. 24-h average concentrations of total suspended particulates (TSP) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN guideline for ambient air quality.

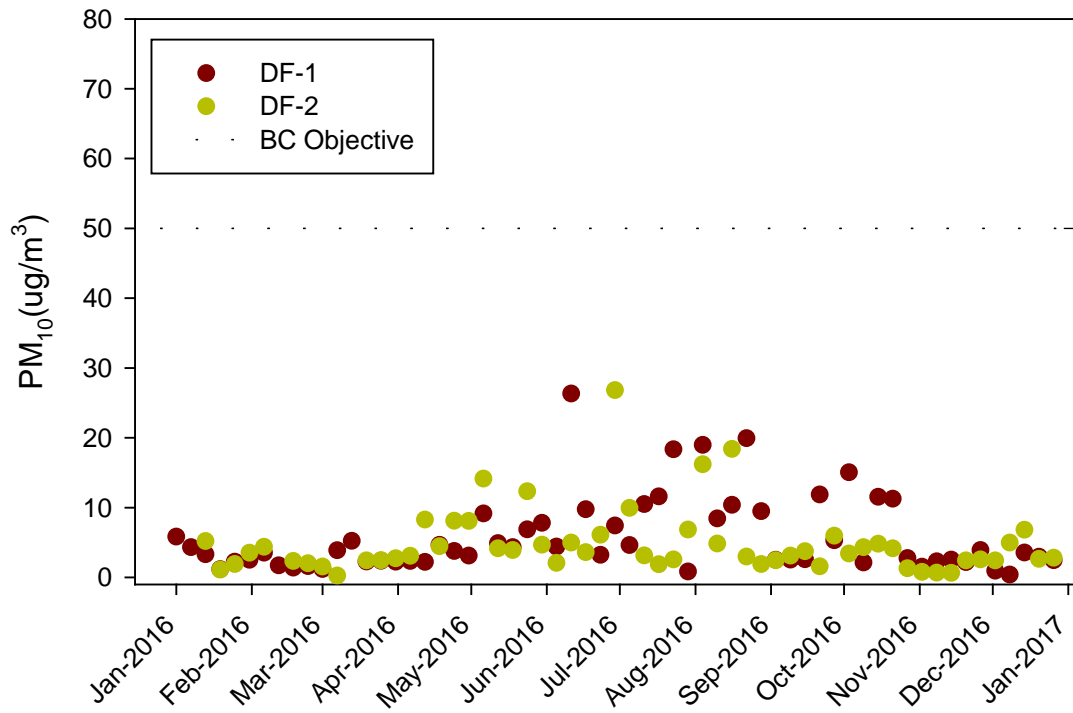


Figure 3. 24-h average concentration of airborne particulate matter less than 10 microns (PM_{10}) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the BC Air Quality Objective for this parameter.

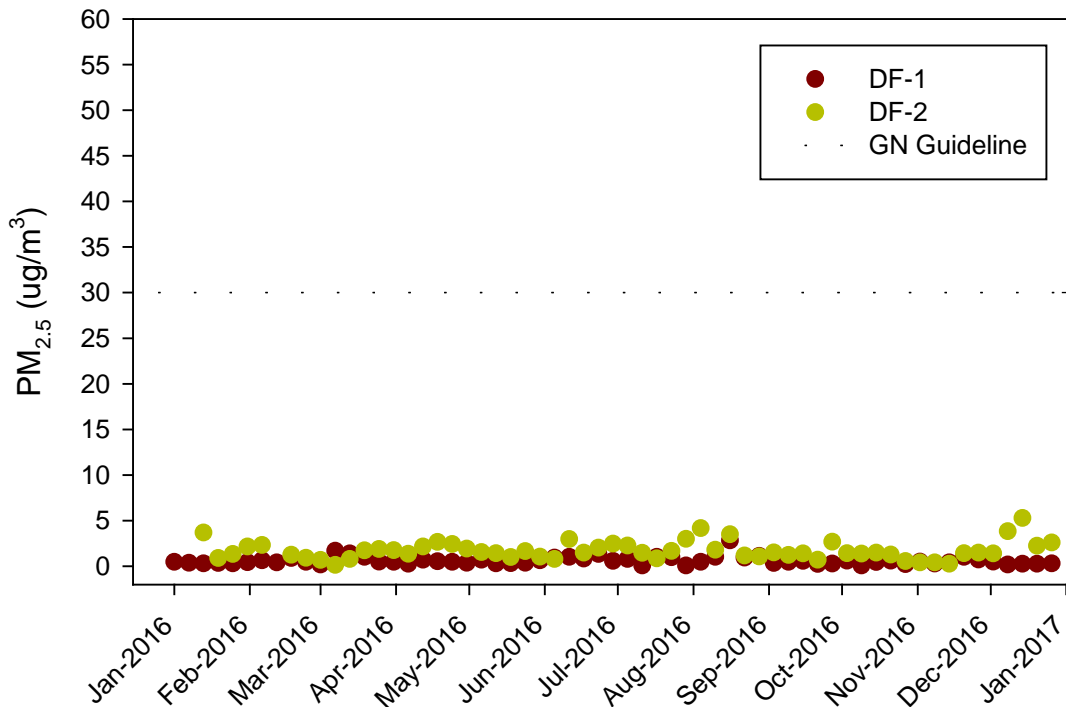


Figure 4. 24-average concentrations of airborne particulate matter less than 2.5 microns ($PM_{2.5}$) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN guideline for this parameter.

4.2 DUSTFALL

Results of the 2016 dustfall sampling program (30-day normalized rates of total and fixed dustfall) are provided in Figure 5 and 6. Fixed dustfall accounted for nearly all of total dustfall in most samples. Samples are plotted by the collection start date. To provide context, the Alberta Environment Department's recreational/residential and industrial/commercial area dustfall guidelines of 0.53 mg/cm²/30 days and 1.58 mg/cm²/30 days are indicated for total dustfall. These guidelines are based on aesthetic or nuisance concerns, and are to be used for airshed planning and management, as a general performance indicator, and to assess local concerns.

The recreational/residential area guideline was exceeded in 1 out of 47 samples, which is the same as 2015, and lower than all previous years (2014 had 5 exceedances, 2013 had 11 exceedances, and 2012 had 10 exceedances). The industrial/commercial area guideline was not exceeded. While the applicability of these guidelines is not well defined, there are no recreational or residential users within vicinity of the minesite and exceedance of one sample is not expected to result in significant aesthetic or nuisance concerns.

No significant trends by location are apparent. Relatively low dustfall values overall may reflect continued efforts to manage dust on site roads through use of dust suppressants (calcium chloride application) and water trucks.

Where results were greater than the detection limit (1 mg), fixed (non-combustible) dustfall always represented more than 52% of total dustfall, and more commonly more than 80%.

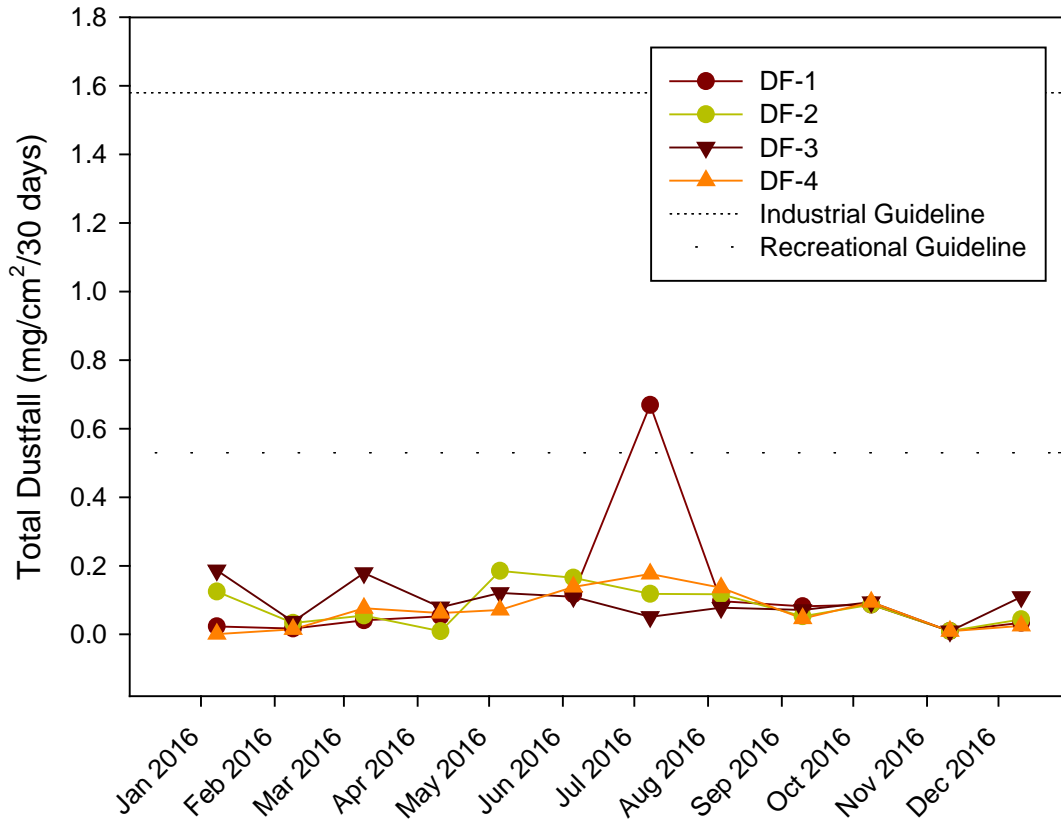


Figure 5. Total 30-day-normalized dustfall at DF-1 – 4 at the Meadowbank site. Points represent start date of sample collection. Dashed line indicates the Alberta Environment Department’s recreational area guideline of 0.53 mg/cm²/30d, and the dotted line indicates the industrial area guideline of 1.58 mg/cm²/30d.

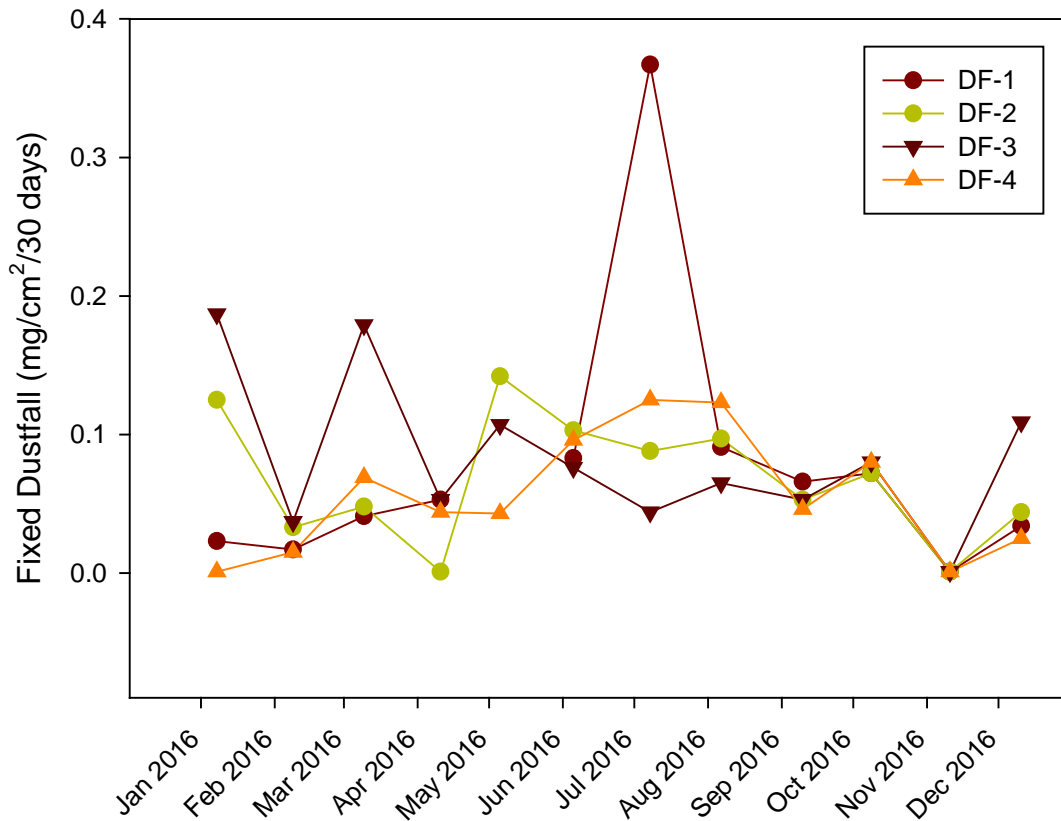


Figure 6. Fixed (non-combustible) 30-day-normalized dustfall at DF-1 – 4 at the Meadowbank site. Points represent start date of sample collection.

4.3 NO₂

Monthly-average NO₂ trends in 2016 are provided in Figure 7. Samples are referred to by the collection start date. Concentrations of NO₂ vary between non-detect (<0.1) and 2.4 ppb. This maximum is lower than observed previously (3.3, 5.3 and 6.8 ppb observed in 2014, 2013 and 2012, respectively). At most time points, concentrations are slightly lower at DF-1 than DF-2. This is likely because DF-1 is further from the main camp area and there is generally less vehicular activity in the vicinity. No clear trends towards increasing or decreasing concentrations over time are evident.

Annual arithmetic mean concentrations were calculated for each station from the monthly-average values. The annual mean concentrations of NO₂ were 0.64 and 1.26 ppb for DF-1 and DF-2, respectively (January 6, 2016 – January 14, 2017). These are both well below the Government of Nunavut Ambient Air Quality Standard of 32 ppb for the annual average.

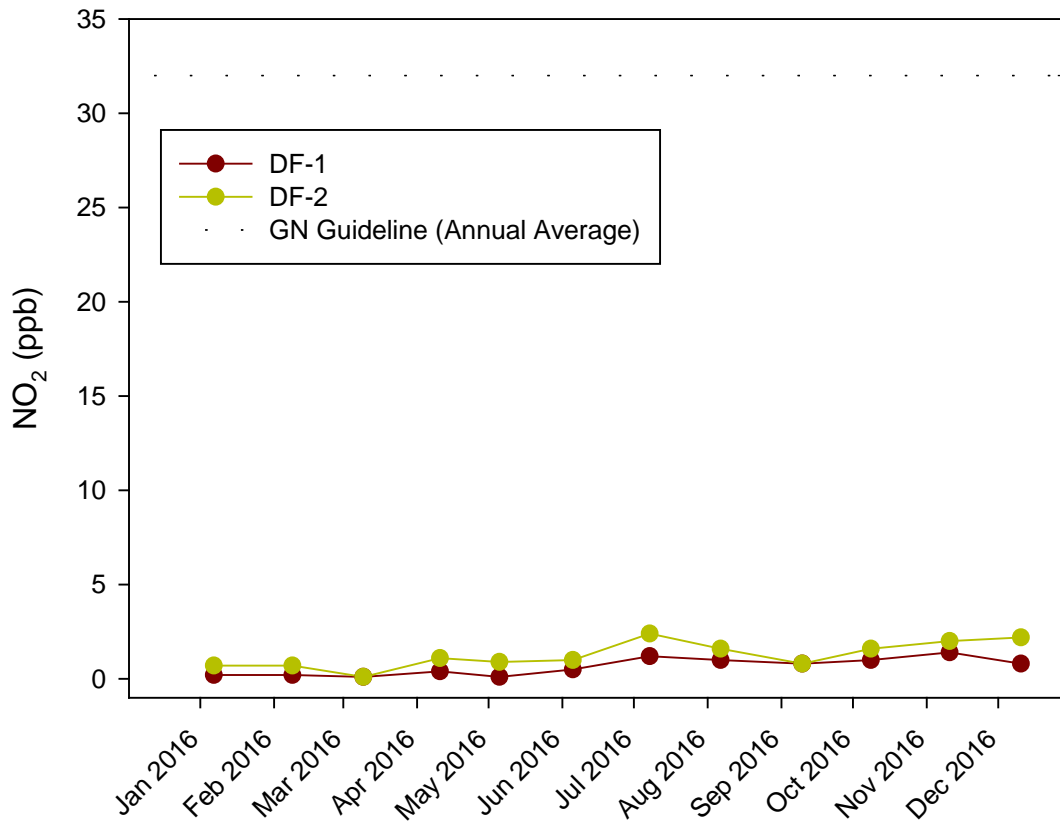


Figure 7. Monthly average concentration of NO₂ at DF-1 and DF-2. Points represent start date of sample collection. Dashed line indicates GN standard for the annual average.

4.4 QA/QC

QA/QC procedures in 2016 included the use of an accredited lab for sample preparation and analysis, and sample collection by appropriate personnel (trained by a professional air quality specialist).

Agnico Eagle technicians are now trained to calibrate and maintain Partisol instruments on site, and travel blanks were used as part of particulate sample submissions. Two laboratory records indicated contamination of travel blanks up to 10 µg/filter (MDL = 3 µg/filter). Detections in travel blanks occurred in 5 out of 10 submissions, which is similar to the 3 and 6 contaminated blanks that occurred in 2015 and 2014, respectively. Detections in laboratory blanks only occurred in one submission. Since there were few exceedances of regulatory guidelines, the data was not handled separately.

SECTION 5 • WEATHER DATA

Weather data for the dustfall and air quality monitoring periods was collected using the mine site's permanent weather station. Daily averages for wind speed, wind direction and temperature were available from this station.

Daily averages for wind speed, wind direction and temperature are provided in Appendix A.

SECTION 6 • GREENHOUSE GAS EMISSIONS

Agnico is required by Environment Canada's Greenhouse Gas Emissions Reporting Program (GHGRP) to track greenhouse gas emissions based on annual fuel consumption, composition and the US EPA's AP-42 emission factors.

Estimated greenhouse gas emissions for the Meadowbank site as reported to Environment Canada's Greenhouse Gas Emissions Reporting Program in 2016 were 184,223 tonnes CO₂ equivalent. This is similar to the value observed in 2015 (187,280 CO₂ equivalent), and in general a year-over-year decline has been observed, with 179,889 tonnes in 2014, 195,686 tonnes in 2013, and 202,201 tonnes equivalent in 2012.

SECTION 7 • INCINERATOR STACK TESTING

Incinerator stack testing is conducted under Agnico Eagle's Incinerator Waste Management Plan (AEM, 2014), and results are summarized here. As determined in consultation with Environment Canada, incinerator stack testing is undertaken every two years, and annually for five years following an exceedance of EC/GN criteria. In 2014, stack testing was conducted from July 11th to July 13th by Exova Canada Inc. Results indicated that the average (of 3 tests) measured mercury level ($64.09 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$) exceeded the GN standard ($20 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$). Laboratory re-analysis confirmed these results. An investigation with Meadowbank's Site Services Department was performed to determine the potential sources. Although Meadowbank has an alkaline battery recycling program, the investigation revealed that there could still be a significant volume of batteries disposed of with regular solid waste destined for the onsite incinerator. This would seem to be the most likely source. In addition, the incinerator may have been overloaded on the day of testing which would result in some incomplete combustion but this would not be considered as a major contributing factor. The dioxin and furans results in 2014 ($53.6 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$) were well below the GN standard ($80 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$).

Following these tests, Agnico Eagle implemented a comprehensive site wide information campaign to reinforce the requirements of the recycling program. This included regular meetings with individual departments as well as placing information on the Agnico Eagle intranet site.

Stack testing was performed again in 2015 to determine whether the mercury exceedance was ongoing. Testing was performed by Exova Canada Inc. from June 19 – 21, 2015. Concentrations of mercury ($<0.22 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$) were below the GN standard of $20 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$, suggesting that efforts to reduce improper disposal of batteries were effective. Concentrations of dioxins and furans ($21.0 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$) also met the GN standard ($80 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$).

Stack testing was conducted again in 2016 to confirm these results. Tests were performed by Consulair staff from June 30 – July 3, 2016. Concentrations of mercury ($<0.46 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$) were again below the GN standard of $20 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$ in all three tests. Concentrations of dioxins and furans exceeded the standard ($80 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$) in one of three tests, by 12.5%. The average of the three tests did not exceed the standard ($33 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{v/v O}_2$).

SECTION 8 • MONITORING SUMMARY

8.1 COMPARISON TO REGULATORY GUIDELINES

8.1.1 Suspended Particulates (TSP, PM₁₀, PM_{2.5})

No samples of suspended particulates exceeded the relevant air quality criteria.

8.1.2 Dustfall Guideline

The Alberta Environment Department's recreational area dustfall guideline was exceeded in one out of 47 samples. No samples exceeded the industrial area guideline.

8.1.3 NO₂

The annual mean concentrations of NO₂ were more than 25x lower than the GN guideline of 32 ppb for the annual average.

8.1.4 Incinerator Emissions

Results from stack testing indicated that all measured mercury concentrations (average <0.46 µg / Rm³ @ 11 % v/v O₂) were well below the GN standard (20 µg / Rm³ @ 11 % v/v O₂) in 2016.

The average dioxin and furans concentration (33 pg TEQ / Rm³ @ 11 % v/v O₂) was below the GN standard (80 pg TEQ / Rm³ @ 11 % v/v O₂), but the measured concentration in one of the three tests was above the standard by 12.5%.

8.2 TEMPORAL AND SPATIAL TRENDS

For TSP, minimum concentrations generally occurred in winter (December – March), as in previous years. In general, concentrations of suspended particulates were higher at DF-2, which is consistent with historical results and the placement of this station closer to the main site.

Dustfall at all stations was generally low throughout the year with few notable trends, though as in previous years, concentrations in the winter (especially December – January) tended to be highest at DF-3.

Concentrations of NO₂ were slightly lower at DF-1 compared to DF-2, likely because DF-1 is more remote. No clear trends over the year were observed.

SECTION 9 • ACTIONS

The following actions were identified in 2015, and Agnico Eagle's responses to each in 2016 are indicated below.

- Agnico Eagle will complete additional incinerator stack testing to confirm that concentrations of mercury (as well as dioxins and furans) continue to remain within Environment Canada guidelines.
 - Completed. No additional exceedances of the standard for mercury were observed, but one of three tests indicated concentrations of dioxins and furans in exceedance of the GN standard.

The following actions are identified for 2017:

- Agnico Eagle will complete additional incinerator stack testing to confirm that concentrations of dioxins and furans do not exceed regulatory limits.

SECTION 10 • REFERENCES

AEM, 2014. Meadowbank Gold Project Incinerator Waste Management Plan – Version 5. July, 2014.

AEM, 2012. 2011 Dust and Air Quality Monitoring Report. Meadowbank Gold Project. Prepared for Nunavut Impact Review Board.

Cumberland Resources Ltd. 2005. Meadowbank Gold Project Air Quality Impact Assessment Report.

Golder Associates Ltd. (Golder) 2008. Technical Memorandum. Addendum Report: Air Quality Monitoring Meadowbank Gold Project. Prepared for Agnico-Eagle Mines Ltd. May 16, 2008.

Rescan Environmental Services Ltd. (Rescan) 2009. Doris North Gold Mine Project: Air Quality Compliance Report for Section 4 Item 30 of the Project Certificate. Prepared for Hope Bay Mining Ltd. November, 2009.

Appendix A

Weather Data

2016 Air Quality and Dustfall Monitoring Report
Agnico Eagle - Meadowbank Mine

Table -Apx 1. Daily temperature, wind speed and wind direction in 2016 at the Meadowbank site.

| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|---------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------|
| 1/01/16 | -23.23 | -18.38 | -28.79 | 3.84 | 277 |
| 1/02/16 | -29.13 | -22.50 | -33.94 | 5.71 | 314 |
| 1/03/16 | -29.63 | -26.28 | -33.19 | 2.05 | 325 |
| 1/04/16 | -27.49 | -19.25 | -32.72 | 4.69 | 148 |
| 1/05/16 | -15.70 | -13.11 | -19.25 | 4.40 | 104 |
| 1/06/16 | -22.11 | -16.97 | -29.26 | 7.62 | 5 |
| 1/07/16 | -28.73 | -22.77 | -32.79 | 5.77 | 307 |
| 1/08/16 | -30.46 | -27.77 | -33.19 | 5.67 | 319 |
| 1/09/16 | -25.99 | -20.47 | -31.09 | 3.78 | 358 |
| 1/10/16 | -23.65 | -20.06 | -27.30 | 3.73 | 51 |
| 1/11/16 | -25.43 | -24.19 | -26.63 | 3.36 | 317 |
| 1/12/16 | -26.41 | -24.53 | -28.18 | 9.71 | 315 |
| 1/13/16 | -24.81 | -22.37 | -27.64 | 10.56 | 323 |
| 1/14/16 | -19.06 | -10.47 | -23.59 | 12.12 | 356 |
| 1/15/16 | -22.25 | -16.02 | -27.64 | 5.10 | 87 |
| 1/16/16 | -25.50 | -21.55 | -29.26 | 9.76 | 338 |
| 1/17/16 | -22.73 | -20.34 | -25.21 | 7.46 | 350 |
| 1/18/16 | -20.57 | -15.95 | -26.42 | 2.74 | 44 |
| 1/19/16 | -18.55 | -15.35 | -26.02 | 1.11 | 140 |
| 1/20/16 | -26.45 | -21.35 | -28.45 | 1.01 | 185 |
| 1/21/16 | -30.46 | -26.76 | -33.33 | 2.88 | 290 |
| 1/22/16 | -31.76 | -29.80 | -33.73 | 1.80 | 196 |
| 1/23/16 | -30.43 | -27.97 | -34.47 | 1.60 | 257 |
| 1/24/16 | -30.28 | -28.04 | -33.19 | 2.14 | 281 |
| 1/25/16 | -33.11 | -30.96 | -35.29 | 0.71 | 312 |
| 1/26/16 | -34.82 | -33.59 | -36.78 | 2.50 | 291 |
| 1/27/16 | -36.63 | -35.09 | -39.28 | 2.12 | 298 |
| 1/28/16 | -38.32 | -32.91 | -40.50 | 0.75 | 263 |
| 1/29/16 | -27.73 | -23.59 | -33.05 | 1.45 | 190 |
| 1/30/16 | -31.87 | -29.74 | -33.46 | 0.79 | 94 |
| 1/31/16 | -32.05 | -28.38 | -36.30 | 0.78 | 348 |
| 2/01/16 | -34.66 | -31.50 | -37.05 | 2.98 | 305 |
| 2/02/16 | -31.11 | -29.19 | -33.06 | 6.16 | 320 |
| 2/03/16 | -29.53 | -28.31 | -30.89 | 4.12 | 268 |
| 2/04/16 | -31.49 | -28.52 | -33.46 | 1.96 | 302 |
| 2/05/16 | -32.25 | -31.16 | -33.19 | 1.80 | 11 |
| 2/06/16 | -33.19 | -31.43 | -36.44 | 2.18 | 324 |

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Agnico Eagle - Meadowbank Mine

| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 2/07/16 | -35.09 | -32.24 | -36.98 | 1.17 | 107 |
| 2/08/16 | -33.49 | -31.02 | -35.62 | 1.47 | 96 |
| 2/09/16 | -33.00 | -29.67 | -36.37 | 3.63 | 307 |
| 2/10/16 | -30.87 | -28.45 | -34.81 | 7.15 | 300 |
| 2/11/16 | -34.78 | -32.99 | -37.52 | 7.42 | 317 |
| 2/12/16 | -36.64 | -34.54 | -38.74 | 8.85 | 328 |
| 2/13/16 | -30.67 | -26.69 | -35.62 | 5.72 | 297 |
| 2/14/16 | -32.68 | -30.75 | -34.68 | 3.81 | 88 |
| 2/15/16 | -31.96 | -29.67 | -35.62 | 4.32 | 34 |
| 2/16/16 | -36.42 | -33.66 | -38.27 | 5.35 | 324 |
| 2/17/16 | -32.65 | -30.07 | -35.76 | 4.26 | 300 |
| 2/18/16 | -35.03 | -31.02 | -37.79 | 1.81 | 227 |
| 2/19/16 | -28.15 | -25.81 | -31.29 | 5.54 | 217 |
| 2/20/16 | -28.27 | -24.39 | -36.71 | 4.47 | 16 |
| 2/21/16 | -36.54 | -34.07 | -38.47 | 8.72 | 312 |
| 2/22/16 | -34.61 | -31.09 | -38.00 | 8.86 | 304 |
| 2/23/16 | -32.65 | -29.80 | -35.15 | 7.60 | 301 |
| 2/24/16 | -30.95 | -26.35 | -33.06 | 4.44 | 285 |
| 2/25/16 | -28.81 | -26.02 | -32.65 | 5.59 | 290 |
| 2/26/16 | -31.61 | -27.30 | -34.47 | 1.27 | 287 |
| 2/27/16 | -34.93 | -32.18 | -38.47 | 4.61 | 18 |
| 2/28/16 | -37.00 | -35.35 | -39.55 | 5.37 | 324 |
| 2/29/16 | -28.14 | -24.25 | -37.11 | 13.15 | 319 |
| 3/01/16 | -25.75 | -23.99 | -28.04 | 8.58 | 335 |
| 3/02/16 | -23.62 | -22.64 | -24.73 | 3.77 | 319 |
| 3/03/16 | -28.49 | -24.67 | -32.45 | 5.39 | 320 |
| 3/04/16 | -33.34 | -31.36 | -35.08 | 4.55 | 319 |
| 3/05/16 | -30.84 | -27.03 | -34.81 | 3.28 | 281 |
| 3/06/16 | -31.19 | -29.74 | -33.93 | 3.54 | 269 |
| 3/07/16 | -31.33 | -27.63 | -35.28 | 8.05 | 283 |
| 3/08/16 | -26.97 | -24.26 | -29.67 | 7.66 | 299 |
| 3/09/16 | -29.57 | -26.42 | -32.92 | 2.51 | 275 |
| 3/10/16 | -28.95 | -26.02 | -32.31 | 2.33 | 296 |
| 3/11/16 | -30.22 | -27.57 | -33.06 | 2.13 | 215 |
| 3/12/16 | -25.19 | -22.37 | -28.79 | 3.96 | 70 |
| 3/13/16 | -28.75 | -25.35 | -33.46 | 2.56 | 195 |
| 3/14/16 | -21.74 | -17.23 | -26.96 | 4.96 | 261 |
| 3/15/16 | -25.59 | -22.10 | -28.79 | 2.97 | 287 |

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Agnico Eagle - Meadowbank Mine

| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 3/16/16 | -20.66 | -16.16 | -25.00 | 2.84 | 239 |
| 3/17/16 | -18.55 | -13.59 | -22.37 | 1.96 | 62 |
| 3/18/16 | -19.07 | -15.48 | -23.04 | 2.57 | 94 |
| 3/19/16 | -15.28 | -12.77 | -17.10 | 5.95 | 112 |
| 3/20/16 | -23.27 | -14.40 | -30.21 | 8.62 | 344 |
| 3/21/16 | -29.50 | -26.41 | -32.24 | 8.14 | 310 |
| 3/22/16 | -28.92 | -26.15 | -31.90 | 6.88 | 326 |
| 3/23/16 | -31.09 | -27.84 | -33.87 | 7.12 | 328 |
| 3/24/16 | -31.45 | -28.18 | -34.27 | 4.74 | 315 |
| 3/25/16 | -29.44 | -25.62 | -32.51 | 2.67 | 290 |
| 3/26/16 | -28.15 | -24.67 | -31.09 | 1.29 | 275 |
| 3/27/16 | -28.82 | -23.45 | -34.41 | 0.67 | 186 |
| 3/28/16 | -24.11 | -13.99 | -31.29 | 3.40 | 159 |
| 3/29/16 | -17.15 | -12.64 | -24.26 | 2.45 | 326 |
| 3/30/16 | -22.42 | -18.45 | -26.63 | 1.16 | 99 |
| 3/31/16 | -20.79 | -16.42 | -26.29 | 6.18 | 286 |
| 4/01/16 | -27.18 | -25.54 | -29.26 | 10.14 | 319 |
| 4/02/16 | -27.84 | -23.79 | -31.16 | 7.34 | 322 |
| 4/03/16 | -28.73 | -26.22 | -31.23 | 7.67 | 321 |
| 4/04/16 | -29.77 | -25.14 | -33.73 | 6.53 | 306 |
| 4/05/16 | -28.82 | -24.67 | -31.70 | 4.91 | 304 |
| 4/06/16 | -26.90 | -22.23 | -31.57 | 7.55 | 301 |
| 4/07/16 | -26.11 | -23.72 | -28.04 | 7.69 | 325 |
| 4/08/16 | -27.82 | -24.39 | -31.16 | 8.76 | 319 |
| 4/09/16 | -26.10 | -21.55 | -29.94 | 6.73 | 309 |
| 4/10/16 | -26.32 | -21.96 | -29.94 | 3.61 | 303 |
| 4/11/16 | -27.59 | -23.79 | -31.63 | 6.32 | 317 |
| 4/12/16 | -24.21 | -21.15 | -28.45 | 6.44 | 311 |
| 4/13/16 | -18.90 | -16.02 | -21.83 | 4.78 | 281 |
| 4/14/16 | -20.21 | -13.33 | -24.26 | 1.54 | 179 |
| 4/15/16 | -19.43 | -15.21 | -24.46 | 4.16 | 114 |
| 4/16/16 | -15.90 | -13.06 | -18.79 | 4.34 | 35 |
| 4/17/16 | -18.76 | -16.02 | -23.45 | 6.30 | 325 |
| 4/18/16 | -17.94 | -12.79 | -23.72 | 2.45 | 121 |
| 4/19/16 | -16.34 | -10.35 | -25.07 | 2.02 | 131 |
| 4/20/16 | -10.90 | -9.68 | -14.67 | 10.28 | 69 |
| 4/21/16 | -21.78 | -14.53 | -24.53 | 9.89 | 327 |
| 4/22/16 | -22.45 | -18.72 | -26.22 | 9.06 | 311 |

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| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 4/23/16 | -20.07 | -17.37 | -23.45 | 10.00 | 309 |
| 4/24/16 | -19.97 | -16.82 | -24.13 | 7.23 | 312 |
| 4/25/16 | -18.15 | -14.81 | -22.23 | 6.08 | 325 |
| 4/26/16 | -16.11 | -11.10 | -21.28 | 2.22 | 357 |
| 4/27/16 | -18.13 | -11.57 | -25.34 | 2.51 | 81 |
| 4/28/16 | -11.83 | -8.40 | -17.23 | 3.74 | 76 |
| 4/29/16 | -6.37 | -3.89 | -9.00 | 4.64 | 127 |
| 4/30/16 | -4.61 | -1.59 | -8.46 | 4.21 | 153 |
| 5/01/16 | -3.73 | -1.32 | -6.92 | 7.05 | 153 |
| 5/02/16 | -2.97 | 0.97 | -6.44 | 6.86 | 164 |
| 5/03/16 | -5.08 | -0.24 | -13.99 | 7.04 | 334 |
| 5/04/16 | -11.87 | -6.32 | -17.78 | 4.26 | 298 |
| 5/05/16 | -10.31 | -5.78 | -17.04 | 2.77 | 4 |
| 5/06/16 | -6.65 | -1.06 | -15.28 | 3.11 | 40 |
| 5/07/16 | -3.42 | -0.91 | -6.59 | 4.23 | 73 |
| 5/08/16 | -5.93 | -3.75 | -8.06 | 4.66 | 331 |
| 5/09/16 | -8.01 | -4.29 | -12.45 | 3.36 | 81 |
| 5/10/16 | -3.87 | -2.27 | -6.38 | 8.88 | 105 |
| 5/11/16 | -2.83 | -0.52 | -8.19 | 8.43 | 360 |
| 5/12/16 | -6.78 | -2.94 | -11.30 | 7.76 | 319 |
| 5/13/16 | -8.60 | -6.85 | -10.08 | 7.85 | 314 |
| 5/14/16 | -10.39 | -8.19 | -13.05 | 5.19 | 310 |
| 5/15/16 | -8.95 | -5.24 | -11.77 | 1.84 | 128 |
| 5/16/16 | -6.89 | -3.55 | -10.49 | 4.68 | 355 |
| 5/17/16 | -5.60 | -2.00 | -11.16 | 3.78 | 307 |
| 5/18/16 | -4.05 | -1.19 | -7.25 | 6.22 | 274 |
| 5/19/16 | -4.18 | -2.20 | -6.04 | 8.78 | 302 |
| 5/20/16 | -5.06 | -2.54 | -9.00 | 8.89 | 319 |
| 5/21/16 | -2.51 | 0.43 | -5.38 | 7.34 | 293 |
| 5/22/16 | -1.48 | 2.97 | -6.78 | 3.80 | 252 |
| 5/23/16 | -5.23 | -1.32 | -6.99 | 5.63 | 341 |
| 5/24/16 | -3.52 | -0.78 | -6.71 | 9.27 | 316 |
| 5/25/16 | -6.20 | -3.82 | -8.32 | 6.87 | 310 |
| 5/26/16 | -6.28 | -4.16 | -8.05 | 1.88 | 254 |
| 5/27/16 | -1.70 | 2.43 | -6.25 | 4.51 | 193 |
| 5/28/16 | 0.18 | 3.65 | -3.35 | 4.10 | 222 |
| 5/29/16 | -1.03 | 1.89 | -4.70 | 2.28 | 4 |
| 5/30/16 | -2.08 | -0.44 | -4.43 | 4.99 | 18 |

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| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|---------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------|
| 5/31/16 | -3.60 | -0.37 | -6.05 | 4.78 | 347 |
| 6/01/16 | -3.00 | -0.54 | -5.84 | 2.51 | 224 |
| 6/02/16 | -0.07 | 2.84 | -2.40 | 6.94 | 144 |
| 6/03/16 | 0.26 | 2.77 | -1.25 | 7.93 | 125 |
| 6/04/16 | 0.39 | 2.43 | -1.12 | 7.16 | 114 |
| 6/05/16 | 0.27 | 2.84 | -2.00 | 6.89 | 102 |
| 6/06/16 | 0.70 | 2.91 | -1.32 | 5.44 | 114 |
| 6/07/16 | 1.26 | 3.78 | -1.32 | 3.96 | 134 |
| 6/08/16 | 1.18 | 3.78 | -2.13 | 5.16 | 123 |
| 6/09/16 | 2.49 | 6.89 | -1.79 | 4.51 | 126 |
| 6/10/16 | 5.84 | 10.23 | 0.70 | 2.21 | 96 |
| 6/11/16 | 5.69 | 9.96 | 0.68 | 2.50 | 44 |
| 6/12/16 | 7.01 | 11.45 | 2.57 | 3.78 | 258 |
| 6/13/16 | 9.19 | 13.20 | 4.46 | 3.33 | 65 |
| 6/14/16 | 5.79 | 9.30 | 2.97 | 5.85 | 95 |
| 6/15/16 | 3.72 | 5.74 | 1.76 | 8.72 | 106 |
| 6/16/16 | 8.66 | 16.37 | 3.11 | 7.44 | 125 |
| 6/17/16 | 8.26 | 14.08 | 4.66 | 7.79 | 130 |
| 6/18/16 | 6.44 | 8.90 | 3.24 | 6.98 | 105 |
| 6/19/16 | 2.33 | 6.08 | 1.22 | 9.66 | 258 |
| 6/20/16 | 5.55 | 10.04 | 1.89 | 7.68 | 359 |
| 6/21/16 | 5.48 | 8.11 | 2.43 | 6.84 | 333 |
| 6/22/16 | 10.48 | 16.04 | 5.95 | 1.68 | 0 |
| 6/23/16 | 10.40 | 14.55 | 7.16 | 2.40 | 59 |
| 6/24/16 | 7.58 | 11.58 | 4.32 | 7.09 | 342 |
| 6/25/16 | 8.27 | 12.80 | 3.24 | 5.94 | 327 |
| 6/26/16 | 8.19 | 15.09 | 2.16 | 2.95 | 315 |
| 6/27/16 | 14.02 | 21.26 | 5.54 | 2.01 | 205 |
| 6/28/16 | 11.95 | 14.55 | 8.81 | 4.90 | 89 |
| 6/29/16 | 14.55 | 20.24 | 6.58 | 2.04 | 240 |
| 6/30/16 | 15.89 | 23.28 | 8.41 | 3.66 | 276 |
| 7/01/16 | 14.41 | 19.64 | 8.54 | 2.91 | 321 |
| 7/02/16 | 14.46 | 21.66 | 9.01 | 3.24 | 339 |
| 7/03/16 | 11.88 | 16.21 | 6.54 | 4.23 | 25 |
| 7/04/16 | 13.38 | 17.48 | 9.15 | 3.39 | 83 |
| 7/05/16 | 13.54 | 16.55 | 8.74 | 3.22 | 88 |
| 7/06/16 | 14.30 | 19.50 | 10.63 | 3.93 | 98 |
| 7/07/16 | 14.44 | 19.57 | 8.74 | 3.30 | 143 |

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| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 7/08/16 | 17.93 | 23.86 | 10.50 | 2.70 | 284 |
| 7/09/16 | 19.66 | 26.09 | 12.26 | 2.85 | 267 |
| 7/10/16 | 20.78 | 26.29 | 14.39 | 2.63 | 91 |
| 7/11/16 | 20.20 | 26.09 | 12.71 | 1.53 | 231 |
| 7/12/16 | 19.75 | 25.28 | 13.60 | 2.65 | 218 |
| 7/13/16 | 18.91 | 23.39 | 12.79 | 4.57 | 343 |
| 7/14/16 | 16.24 | 20.72 | 12.53 | 5.09 | 352 |
| 7/15/16 | 18.52 | 20.99 | 14.78 | 5.27 | 294 |
| 7/16/16 | 11.78 | 16.46 | 6.45 | 8.88 | 298 |
| 7/17/16 | 7.54 | 10.77 | 4.32 | 9.73 | 339 |
| 7/18/16 | 11.74 | 16.94 | 6.45 | 9.18 | 327 |
| 7/19/16 | 10.95 | 15.59 | 7.87 | 4.34 | 295 |
| 7/20/16 | 11.55 | 14.99 | 8.54 | 4.24 | 310 |
| 7/21/16 | 11.85 | 15.99 | 8.20 | 3.12 | 15 |
| 7/22/16 | 13.57 | 17.61 | 6.58 | 5.92 | 146 |
| 7/23/16 | 9.00 | 15.20 | 3.65 | 6.41 | 242 |
| 7/24/16 | 11.52 | 15.49 | 8.07 | 6.09 | 201 |
| 7/25/16 | 12.74 | 14.53 | 9.28 | 7.08 | 213 |
| 7/26/16 | 10.44 | 14.24 | 7.26 | 3.30 | 50 |
| 7/27/16 | 13.07 | 17.21 | 7.93 | 2.65 | 8 |
| 7/28/16 | 12.65 | 15.34 | 9.82 | 8.20 | 164 |
| 7/29/16 | 11.50 | 14.00 | 9.42 | 7.38 | 247 |
| 7/30/16 | 11.85 | 16.26 | 9.82 | 3.11 | 246 |
| 7/31/16 | 13.14 | 16.67 | 9.15 | 4.62 | 144 |
| 8/01/16 | 14.28 | 17.88 | 11.38 | 7.90 | 158 |
| 8/02/16 | 12.76 | 16.26 | 10.57 | 5.30 | 116 |
| 8/03/16 | 13.26 | 15.07 | 11.72 | 6.99 | 32 |
| 8/04/16 | 13.99 | 15.59 | 12.73 | 3.92 | 24 |
| 8/05/16 | 12.37 | 15.93 | 8.61 | 9.60 | 346 |
| 8/06/16 | 8.63 | 12.53 | 5.19 | 7.61 | 350 |
| 8/07/16 | 6.70 | 8.95 | 3.65 | 8.20 | 342 |
| 8/08/16 | 6.15 | 10.09 | 2.77 | 5.34 | 350 |
| 8/09/16 | 9.70 | 13.32 | 6.65 | 4.95 | 48 |
| 8/10/16 | 12.81 | 17.61 | 8.47 | 5.37 | 358 |
| 8/11/16 | 13.64 | 18.56 | 8.88 | 4.72 | 353 |
| 8/12/16 | 14.70 | 20.65 | 8.81 | 1.31 | 316 |
| 8/13/16 | 16.25 | 21.91 | 10.43 | 3.58 | 128 |
| 8/14/16 | 16.97 | 22.47 | 13.47 | 4.60 | 136 |

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| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 8/15/16 | 17.23 | 23.12 | 13.07 | 2.76 | 175 |
| 8/16/16 | 16.80 | 21.45 | 11.72 | 3.54 | 171 |
| 8/17/16 | 16.71 | 21.26 | 12.73 | 5.85 | 163 |
| 8/18/16 | 15.55 | 19.16 | 11.85 | 4.80 | 127 |
| 8/19/16 | 8.59 | 11.99 | 4.32 | 10.93 | 356 |
| 8/20/16 | 6.87 | 10.36 | 4.32 | 7.94 | 4 |
| 8/21/16 | 9.53 | 15.45 | 3.45 | 4.98 | 4 |
| 8/22/16 | 12.22 | 17.88 | 7.19 | 3.50 | 12 |
| 8/23/16 | 13.46 | 19.10 | 8.61 | 6.19 | 347 |
| 8/24/16 | 9.65 | 13.20 | 7.53 | 7.39 | 328 |
| 8/25/16 | 10.45 | 16.26 | 5.00 | 2.95 | 332 |
| 8/26/16 | 5.70 | 9.01 | 2.70 | 8.95 | 333 |
| 8/27/16 | 3.95 | 7.39 | 1.42 | 6.47 | 331 |
| 8/28/16 | 5.40 | 8.41 | 2.84 | 2.83 | 290 |
| 8/29/16 | 8.06 | 11.45 | 4.66 | 2.50 | 54 |
| 8/30/16 | 8.83 | 11.65 | 6.85 | 4.01 | 55 |
| 8/31/16 | 8.98 | 11.58 | 6.99 | 3.44 | 306 |
| 9/01/16 | 6.57 | 10.57 | 3.38 | 4.39 | 318 |
| 9/02/16 | 4.73 | 8.07 | 2.97 | 2.78 | 16 |
| 9/03/16 | 5.69 | 9.55 | 2.16 | 3.30 | 83 |
| 9/04/16 | 4.57 | 6.99 | 2.91 | 5.37 | 104 |
| 9/05/16 | 4.65 | 8.07 | 2.84 | 6.16 | 345 |
| 9/06/16 | 4.51 | 7.26 | 2.16 | 3.18 | 147 |
| 9/07/16 | 7.98 | 12.32 | 4.80 | 5.80 | 193 |
| 9/08/16 | 8.18 | 11.17 | 4.38 | 3.59 | 57 |
| 9/09/16 | 11.24 | 16.26 | 7.12 | 5.04 | 169 |
| 9/10/16 | 6.68 | 10.03 | 1.35 | 5.23 | 170 |
| 9/11/16 | 1.76 | 4.19 | 0.07 | 7.74 | 341 |
| 9/12/16 | 1.97 | 5.40 | -0.41 | 6.09 | 349 |
| 9/13/16 | 3.75 | 4.46 | 2.84 | 2.47 | 11 |
| 9/14/16 | 3.02 | 7.26 | -1.76 | 7.80 | 279 |
| 9/15/16 | -0.36 | 2.03 | -1.55 | 6.12 | 306 |
| 9/16/16 | 0.53 | 2.57 | -0.95 | 2.90 | 250 |
| 9/17/16 | 1.71 | 3.24 | -0.27 | 4.87 | 175 |
| 9/18/16 | 4.13 | 6.47 | 1.08 | 6.73 | 125 |
| 9/19/16 | 5.47 | 6.00 | 4.87 | 7.56 | 110 |
| 9/20/16 | 5.16 | 5.93 | 2.70 | 5.83 | 13 |
| 9/21/16 | 1.50 | 3.11 | -0.41 | 11.29 | 343 |

2016 Air Quality and Dustfall Monitoring Report
Agnico Eagle - Meadowbank Mine

| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 9/22/16 | 2.13 | 5.41 | -0.54 | 6.59 | 306 |
| 9/23/16 | 4.37 | 8.34 | 1.08 | 4.33 | 244 |
| 9/24/16 | 6.60 | 12.93 | 2.03 | 4.07 | 169 |
| 9/25/16 | 8.97 | 13.20 | 4.05 | 3.55 | 134 |
| 9/26/16 | 7.03 | 9.69 | 6.05 | 5.80 | 122 |
| 9/27/16 | 4.14 | 6.19 | 0.95 | 5.49 | 19 |
| 9/28/16 | 0.92 | 3.24 | -1.08 | 5.11 | 57 |
| 9/29/16 | 4.11 | 7.28 | 1.76 | 8.97 | 170 |
| 9/30/16 | 1.44 | 3.11 | 0.00 | 12.02 | 255 |
| 10/01/16 | 0.79 | 2.30 | -2.01 | 7.98 | 267 |
| 10/02/16 | 1.10 | 2.84 | 0.07 | 6.49 | 286 |
| 10/03/16 | -1.58 | 0.81 | -2.70 | 3.95 | 10 |
| 10/04/16 | -0.53 | 0.68 | -2.08 | 9.13 | 41 |
| 10/05/16 | -2.77 | -1.60 | -4.31 | 9.67 | 304 |
| 10/06/16 | -0.40 | 0.61 | -2.15 | 5.26 | 301 |
| 10/07/16 | -0.80 | 0.20 | -1.75 | 3.34 | 299 |
| 10/08/16 | -1.29 | 0.07 | -2.29 | 4.29 | 241 |
| 10/09/16 | -2.24 | -0.94 | -5.25 | 3.09 | 323 |
| 10/10/16 | -3.09 | -1.34 | -5.65 | 6.66 | 280 |
| 10/11/16 | -4.72 | -3.28 | -6.19 | 7.12 | 278 |
| 10/12/16 | -5.00 | -3.62 | -6.59 | 4.90 | 240 |
| 10/13/16 | -8.29 | -6.19 | -11.45 | 7.73 | 348 |
| 10/14/16 | -8.17 | -3.14 | -11.43 | 5.38 | 357 |
| 10/15/16 | -9.18 | -6.79 | -12.45 | 4.66 | 325 |
| 10/16/16 | -9.51 | -8.07 | -12.65 | 4.41 | 239 |
| 10/17/16 | -9.63 | -8.20 | -11.57 | 5.35 | 196 |
| 10/18/16 | -9.43 | -8.20 | -10.83 | 4.16 | 75 |
| 10/19/16 | -5.52 | -4.29 | -8.47 | 5.54 | 107 |
| 10/20/16 | -2.71 | -0.73 | -4.90 | 7.82 | 199 |
| 10/21/16 | -7.31 | -3.75 | -9.15 | 4.89 | 50 |
| 10/22/16 | -10.16 | -8.34 | -11.84 | 7.61 | 69 |
| 10/23/16 | -7.60 | -6.25 | -9.42 | 10.00 | 83 |
| 10/24/16 | -4.80 | -2.87 | -7.27 | 7.31 | 89 |
| 10/25/16 | -4.68 | -3.41 | -5.98 | 3.95 | 133 |
| 10/26/16 | -6.51 | -3.08 | -11.30 | 1.61 | 253 |
| 10/27/16 | -7.20 | -4.83 | -9.43 | 4.14 | 243 |
| 10/28/16 | -12.20 | -6.05 | -21.17 | 3.15 | 351 |
| 10/29/16 | -20.08 | -15.96 | -24.81 | 2.85 | 43 |

2016 Air Quality and Dustfall Monitoring Report
Agnico Eagle - Meadowbank Mine

| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 10/30/16 | -14.90 | -6.24 | -24.13 | 8.50 | 317 |
| 10/31/16 | -11.01 | -7.12 | -17.38 | 8.26 | 313 |
| 11/01/16 | -14.77 | -9.68 | -18.46 | 4.97 | 319 |
| 11/02/16 | -15.13 | -12.25 | -19.34 | 5.07 | 235 |
| 11/03/16 | -14.21 | -11.43 | -19.00 | 4.76 | 223 |
| 11/04/16 | -15.53 | -11.77 | -18.53 | 5.27 | 149 |
| 11/05/16 | -11.27 | -8.20 | -19.27 | 3.80 | 248 |
| 11/06/16 | -16.44 | -14.13 | -19.68 | 3.93 | 334 |
| 11/07/16 | -11.28 | -9.54 | -15.08 | 7.97 | 79 |
| 11/08/16 | -13.61 | -10.22 | -16.16 | 2.75 | 4 |
| 11/09/16 | -16.04 | -12.92 | -21.36 | 4.27 | 92 |
| 11/10/16 | -9.50 | -6.04 | -13.19 | 9.86 | 74 |
| 11/11/16 | -8.62 | -5.37 | -11.57 | 6.71 | 290 |
| 11/12/16 | -8.79 | -7.73 | -9.88 | 4.96 | 150 |
| 11/13/16 | -12.44 | -7.25 | -21.43 | 7.00 | 58 |
| 11/14/16 | -19.17 | -15.89 | -22.24 | 4.81 | 294 |
| 11/15/16 | -14.89 | -11.37 | -21.83 | 4.10 | 180 |
| 11/16/16 | -12.72 | -10.35 | -18.46 | 1.53 | 38 |
| 11/17/16 | -19.60 | -16.29 | -23.72 | 6.86 | 352 |
| 11/18/16 | -21.67 | -16.16 | -24.13 | 9.02 | 322 |
| 11/19/16 | -17.94 | -13.99 | -21.90 | 7.96 | 282 |
| 11/20/16 | -15.33 | -13.72 | -18.39 | 8.09 | 299 |
| 11/21/16 | -17.98 | -15.08 | -22.37 | 5.42 | 272 |
| 11/22/16 | -20.13 | -18.32 | -21.43 | 3.15 | 149 |
| 11/23/16 | -11.99 | -7.98 | -18.46 | 7.24 | 157 |
| 11/24/16 | -19.56 | -17.04 | -20.89 | 5.50 | 286 |
| 11/25/16 | -13.84 | -10.76 | -18.60 | 4.10 | 140 |
| 11/26/16 | -10.50 | -8.86 | -14.01 | 1.54 | 161 |
| 11/27/16 | -10.70 | -7.39 | -15.48 | 7.89 | 110 |
| 11/28/16 | -6.40 | -4.23 | -9.20 | 8.81 | 116 |
| 11/29/16 | -6.20 | -4.83 | -7.06 | 3.98 | 142 |
| 11/30/16 | -3.58 | -2.27 | -6.05 | 7.16 | 131 |
| 12/01/16 | -11.85 | -2.74 | -18.93 | 1.30 | 169 |
| 12/02/16 | -12.28 | -7.19 | -19.27 | 1.85 | 169 |
| 12/03/16 | -16.87 | -9.34 | -20.28 | 0.36 | 187 |
| 12/04/16 | -10.78 | -9.40 | -15.08 | 0.22 | 102 |
| 12/05/16 | -10.83 | -7.65 | -14.81 | 0.58 | 106 |
| 12/06/16 | -9.37 | -8.05 | -11.30 | 0.94 | 54 |

2016 Air Quality and Dustfall Monitoring Report
Agnico Eagle - Meadowbank Mine

| Date | Average Temperature (°C) | Minimum Temperature (°C) | Maximum Temperature (°C) | Average Wind Speed (m/s) | Average Wind Direction (deg.) |
|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------------|
| 12/07/16 | -22.01 | -10.49 | -28.86 | 5.52 | 360 |
| 12/08/16 | -27.62 | -25.08 | -30.48 | 8.36 | 330 |
| 12/09/16 | -23.84 | -20.74 | -27.51 | 8.50 | 306 |
| 12/10/16 | -24.32 | -21.55 | -27.92 | 8.38 | 271 |
| 12/11/16 | -27.54 | -24.26 | -30.89 | 5.37 | 209 |
| 12/12/16 | -34.16 | -30.48 | -36.24 | 3.96 | 86 |
| 12/13/16 | -31.48 | -23.45 | -34.68 | 3.21 | 11 |
| 12/14/16 | -28.22 | -21.76 | -32.72 | 8.86 | 357 |
| 12/15/16 | -33.94 | -32.18 | -35.50 | 4.80 | 312 |
| 12/16/16 | -30.75 | -25.19 | -34.21 | 3.52 | 300 |
| 12/17/16 | -28.88 | -27.50 | -29.80 | 6.55 | 319 |
| 12/18/16 | -31.09 | -28.92 | -34.75 | 5.61 | 316 |
| 12/19/16 | -36.05 | -34.13 | -37.25 | 2.97 | 297 |
| 12/20/16 | -37.34 | -34.54 | -38.40 | 2.56 | 300 |
| 12/21/16 | -37.59 | -35.08 | -38.74 | 1.44 | 299 |
| 12/22/16 | -36.59 | -34.34 | -38.20 | 1.03 | 311 |
| 12/23/16 | -35.44 | -31.09 | -37.79 | 1.76 | 315 |
| 12/24/16 | -30.65 | -28.11 | -32.72 | 3.56 | 297 |
| 12/25/16 | -31.82 | -24.94 | -34.55 | 2.77 | 242 |
| 12/26/16 | -25.64 | -22.37 | -30.21 | 2.83 | 178 |
| 12/27/16 | -26.05 | -23.99 | -27.64 | 3.73 | 139 |
| 12/28/16 | -20.40 | -18.72 | -24.13 | 3.11 | 151 |
| 12/29/16 | -20.95 | -18.72 | -25.35 | 1.93 | 337 |
| 12/30/16 | -30.15 | -23.99 | -35.36 | 7.23 | 294 |
| 12/31/16 | -31.57 | -26.35 | -37.52 | 5.81 | 320 |

Appendix B

2016 Laboratory Certificates

Your P.O. #: 428049
Your Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/02/19
Report #: R2132151
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B611285
Received: 2016/02/16, 10:22

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/02/18 | 2016/02/19 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/02/18 | N/A | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Customer Service
Email: LManchak@maxxam.ca
Phone# (780) 378-8500

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B611285
Report Date: 2016/02/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OC9025 | OC9026 | | OC9027 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/01/06 16:00 | 2016/01/06 13:45 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 1.1 | 1.8 | 0.1 | | 8194343 |
| NO2 | ppm | | | | 0.10 | 8194346 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B611285
Report Date: 2016/02/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B611285
Report Date: 2016/02/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|----------------|------|--------------|----------------|------------------|-------|----------|-------|-----------|
| 8194343 | SS6 | Spiked Blank | Calculated NO2 | | | 100 | % | 90 - 110 |
| 8194343 | SS6 | Method Blank | Calculated NO2 | | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B611285
Report Date: 2016/02/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 428049
Your Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/02/22
Report #: R2132909
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B611283

Received: 2016/02/16, 10:19

Sample Matrix: Air
Samples Received: 4

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|--|-----------------|---------------------------|--------------------------|---|--------------------------|
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/02/22 | N/A | PTC SOP-00180 | |
| Total & Fixed Dustfall | 4 | 2016/02/22 | N/A | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/02/22 | N/A | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Customer Service
Email: LManchak@maxxam.ca
Phone# (780) 378-8500

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B611283
Report Date: 2016/02/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OC9018 | OC9019 | OC9020 | OC9021 | | |
|----------------------------------|--------------|------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/01/06 | 2016/01/06 | 2016/01/06 | 2016/01/06 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 33 | 33 | 33 | 33 | 1 | 8197424 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 2 | 11 | 17 | 3 | 1 | 8197421 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.023 | 0.125 | 0.187 | 0.031 | 0.001 | 8197422 |
| Total Fixed Dustfall | mg | 2 | 11 | 17 | 3 | 1 | 8197421 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.023 | 0.125 | 0.187 | 0.031 | 0.001 | 8197422 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B611283
Report Date: 2016/02/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B611283
Report Date: 2016/02/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|-------------|------|-----------------|----------------------|---------------|-------|----------|-------|-----------|
| 8197421 | OZ | Method Blank | Total Dustfall | | <1 | | mg | |
| | | | Total Fixed Dustfall | | <1 | | mg | |
| 8197421 | OZ | RPD [OC9018-01] | Total Dustfall | | NC | | % | N/A |
| | | | Total Fixed Dustfall | | NC | | % | N/A |

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

Maxxam Job #: B611283
Report Date: 2016/02/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/01/06 - 2016/02/08
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 428049
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/02/24
Report #: R2134311
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B611251
Received: 2016/02/16, 09:44

Sample Matrix: Filter
Samples Received: 40

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 40 | N/A | N/A | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Customer Service
Email: LManchak@maxxam.ca
Phone# (780) 378-8500

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B611251
Report Date: 2016/02/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OC8873 | OC8874 | OC8875 | OC8877 | OC8878 | | |
|---------------|-------|--------------|---------------|---------------|---------------|---------------|-----|----------|
| Sampling Date | | 2015/12/20 | 2015/12/26 | 2016/01/01 | 2015/12/20 | 2015/12/26 | | |
| | UNITS | PM2.5 RP9903 | PM2.5 RP20615 | PM2.5 RP28543 | PM2.5 RP22198 | PM2.5 RP82070 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|---|----|----|----|---|---------|
| Particulate Matter | ug/filter | 17 | 8 | 11 | 71 | 95 | 3 | 8199704 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OC8879 | OC8880 | OC8881 | OC8882 | OC8883 | | |
|---------------|-------|--------------|--------------|--------------|------------|--------------|-----|----------|
| Sampling Date | | 2015/12/20 | 2015/12/26 | 2016/01/01 | 2016/01/07 | 2015/12/20 | | |
| | UNITS | PM10 RP17873 | PM10 RP15488 | PM10 RP10079 | PM10 RP841 | PM10 RP15067 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|-----|-----|----|---|---------|
| Particulate Matter | ug/filter | 87 | 30 | 144 | 108 | 22 | 3 | 8199704 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OC8884 | OC8885 | OC8886 | OC8887 | OC8888 | OC8889 | | |
|---------------|-------|--------------|-------------|-------------|------------|-------------|-------------|-----|----------|
| Sampling Date | | 2015/12/26 | 2015/12/20 | 2015/12/26 | 2016/01/01 | 2016/01/07 | 2015/12/20 | | |
| | UNITS | PM10 RP17830 | TSP RP87500 | TSP RP26380 | TSP RP9902 | TSP RP90013 | TSP RP10071 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|----|-----|-----|----|----|---|---------|
| Particulate Matter | ug/filter | 59 | 66 | 125 | 208 | 82 | 63 | 3 | 8199704 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OC8890 | OC8902 | OC8903 | OC8944 | OC8945 | OC8946 | | |
|---------------|-------|------------|-------------|-------------|---------------|--------------|---------------|-----|----------|
| Sampling Date | | 2015/12/26 | 2016/01/01 | 2016/01/07 | 2016/01/07 | 2016/01/13 | 2016/01/19 | | |
| | UNITS | TSP RP9917 | TSP RP84368 | TSP RP27293 | PM2.5 RP50778 | PM2.5 RP9947 | PM2.5 RP89967 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|-----|-----|---|---|---|---|---------|
| Particulate Matter | ug/filter | 87 | 253 | 145 | 9 | 7 | 8 | 3 | 8199704 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OC8947 | OC8949 | OC8950 | OC8951 | OC8953 | | |
|---------------|-------|---------------|---------------|---------------|---------------|--------------|-----|----------|
| Sampling Date | | 2016/01/25 | 2016/01/13 | 2016/01/19 | 2016/01/25 | 2016/01/13 | | |
| | UNITS | PM2.5 RP18848 | PM2.5 RP19960 | PM2.5 RP72140 | PM2.5 RP96182 | PM10 RP15236 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|---|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 7 | 88 | 21 | 33 | 80 | 3 | 8199704 |
| RDL = Reportable Detection Limit | | | | | | | | |

Maxxam Job #: B611251
Report Date: 2016/02/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OC8957 | OC8958 | OC8960 | OC8961 | OC8962 | | |
|---------------|-------|--------------|--------------|--------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/01/19 | 2016/01/25 | 2016/01/13 | 2016/01/19 | 2016/01/25 | | |
| | UNITS | PM10 RP98002 | PM10 RP13060 | PM10 RP85916 | PM10 RP10349 | PM10 RP46116 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|---|----|---|---------|
| Particulate Matter | ug/filter | 22 | 52 | 50 | 8 | 19 | 3 | 8199706 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OC8964 | OC8965 | OC8966 | OC8967 | OC8968 | OC8969 | | |
|---------------|-------|-------------|------------|-------------|------------|-------------|------------|-----|----------|
| Sampling Date | | 2016/01/13 | 2016/01/19 | 2016/01/25 | 2016/01/13 | 2016/01/19 | 2016/01/25 | | |
| | UNITS | TSP RP96713 | TSP RP932 | TSP RP10064 | TSP RP908 | TSP RP91098 | TSP RP878 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|----|----|-----|----|-----|---|---------|
| Particulate Matter | ug/filter | 93 | 36 | 80 | 525 | 70 | 104 | 3 | 8199706 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OC8970 | OC8971 | | |
|---------------|-------|---------------------|-----------|-----|----------|
| Sampling Date | | | | | |
| | UNITS | TRAVEL BLANK RP4234 | LAB BLANK | RDL | QC Batch |

| PM2.5/10 | | | | | |
|----------------------------------|-----------|----|----|---|---------|
| Particulate Matter | ug/filter | 10 | <3 | 3 | 8199706 |
| RDL = Reportable Detection Limit | | | | | |

Maxxam Job #: B611251
Report Date: 2016/02/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B611251
Report Date: 2016/02/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 428049
Your Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/03/21
Report #: R2145711
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B619797

Received: 2016/03/16, 12:45

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/03/21 | 2016/03/21 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/03/21 | N/A | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Customer Service

Email: LManchak@maxxam.ca

Phone# (780) 378-8500

=====

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Maxxam Job #: B619797
Report Date: 2016/03/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OH2379 | OH2380 | | OH2381 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/02/08 15:49 | 2016/02/08 11:48 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 0.2 | 0.7 | 0.1 | | 8221473 |
| NO2 | ppm | | | | 0.06 | 8221476 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B619797
Report Date: 2016/03/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B619797
Report Date: 2016/03/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|----------------|------|--------------|----------------|------------------|-------|----------|-------|-----------|
| 8221473 | SS6 | Spiked Blank | Calculated NO2 | | | 93 | % | 90 - 110 |
| 8221473 | SS6 | Method Blank | Calculated NO2 | | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B619797
Report Date: 2016/03/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 428049
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/03/28
Report #: R2148528
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B619789
Received: 2016/03/16, 12:24

Sample Matrix: Filter
Samples Received: 29

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 29 | N/A | N/A | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Customer Service
Email: LManchak@maxxam.ca
Phone# (780) 378-8500

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B619789
Report Date: 2016/03/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OH2320 | OH2321 | OH2322 | OH2323 | OH2324 | | |
|----------------------------------|-----------|---------------|---------------|---------------|---------------|---------------|-----|----------|
| Sampling Date | | 2016/01/31 | 2016/02/06 | 2016/02/12 | 2016/02/18 | 2016/02/24 | | |
| | UNITS | PM2.5 RP54425 | PM2.5 RP22212 | PM2.5 RP90546 | PM2.5 RP15545 | PM2.5 RP90833 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 10 | 15 | 10 | 21 | 11 | 3 | 8226353 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OH2325 | OH2326 | OH2327 | OH2328 | OH2329 | OH2331 | | |
|----------------------------------|-----------|--------------|--------------|--------------|--------------|--------------|------------|-----|----------|
| Sampling Date | | 2016/01/31 | 2016/02/06 | 2016/02/12 | 2016/02/18 | 2016/02/24 | 2016/01/31 | | |
| | UNITS | PM10 RP76151 | PM10 RP15514 | PM10 RP93460 | PM10 RP13795 | PM10 RP15511 | TSP RP880 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | |
| Particulate Matter | ug/filter | 57 | 79 | 36 | 15 | 31 | 71 | 3 | 8226353 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OH2332 | OH2333 | OH2334 | OH2335 | OH2339 | OH2340 | | |
|----------------------------------|-----------|-------------|-------------|-------------|------------|---------------|---------------|-----|----------|
| Sampling Date | | 2016/02/06 | 2016/02/12 | 2016/02/18 | 2016/02/24 | 2016/01/31 | 2016/02/06 | | |
| | UNITS | TSP RP15062 | TSP RP16082 | TSP RP12409 | TSP RP852 | PM2.5 RP27276 | PM2.5 RP28677 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | |
| Particulate Matter | ug/filter | 62 | 42 | 31 | 42 | 53 | 57 | 3 | 8226353 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OH2341 | OH2342 | OH2346 | OH2347 | OH2348 | | |
|----------------------------------|-----------|---------------|---------------|------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/02/12 | 2016/02/18 | 2016/01/31 | 2016/02/06 | 2016/02/12 | | |
| | UNITS | PM2.5 RP10084 | PM2.5 RP85959 | PM10 RP893 | PM10 RP20646 | PM10 RP27515 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 199 | 29 | 44 | 63 | 188 | 3 | 8226353 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OH2349 | OH2352 | OH2353 | OH2354 | OH2355 | | |
|----------------------------------|-----------|--------------|------------|-------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/02/18 | 2016/01/31 | 2016/02/06 | 2016/02/12 | 2016/02/18 | | |
| | UNITS | PM10 RP27285 | TSP RP1582 | TSP RP17828 | TSP RP84094 | TSP RP13270 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 31 | 82 | 130 | 53 | 57 | 3 | 8226353 |
| RDL = Reportable Detection Limit | | | | | | | | |

Maxxam Job #: B619789
Report Date: 2016/03/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OH2358 | OH2359 | | |
|----------------------------------|-----------|-------------------------|-----------|-----|----------|
| Sampling Date | | | | | |
| | UNITS | TRAVEL BLANK RP17814 | LAB BLANK | RDL | QC Batch |
| PM2.5/10 | | | | | |
| Particulate Matter | ug/filter | 3 | <3 | 3 | 8226353 |
| RDL = Reportable Detection Limit | | | | | |

Maxxam Job #: B619789
Report Date: 2016/03/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS


Results relate only to the items tested.

Maxxam Job #: B619789
Report Date: 2016/03/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 428049
 Your Project #: 2016/02/08 - 2016/03/09
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA JOY 1C0

Report Date: 2016/03/29
 Report #: R2149176
 Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B619795

Received: 2016/03/16, 12:41

Sample Matrix: Air
 # Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|----------|---|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/03/24 | N/A | PTC SOP-00180 | |
| Total & Fixed Dustfall | 4 | 2016/03/24 | N/A | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/03/24 | N/A | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
 Levi Manchak, Customer Service
 Email: LManchak@maxxam.ca
 Phone# (780) 378-8500

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B619795
Report Date: 2016/03/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OH2374 | | OH2375 | OH2376 | | OH2377 | | |
|----------------------------------|--------------|------------|-------|------------|------------|-------|------------|-------|----------|
| Sampling Date | | 2016/02/08 | | 2016/02/08 | 2016/02/08 | | 2016/02/08 | | |
| | UNITS | 1 | RDL | 2 | 3 | RDL | 4 | RDL | QC Batch |
| Industrial | | | | | | | | | |
| Exposure | days | 30 | 1 | 30 | 30 | 1 | 30 | 1 | 8225351 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 1 | 1 | 3 | 3 | 2 | 1 | 1 | 8225348 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.017 | 0.001 | 0.033 | 0.037 | 0.002 | 0.015 | 0.001 | 8225349 |
| Total Fixed Dustfall | mg | 1 | 1 | 3 | 3 | 2 | 1 | 1 | 8225348 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.017 | 0.001 | 0.033 | 0.037 | 0.002 | 0.015 | 0.001 | 8225349 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B619795
Report Date: 2016/03/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Samples dates of 2016/02/08 - 2016/03/09 supplied via email.

Results relate only to the items tested.

Maxxam Job #: B619795
Report Date: 2016/03/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|-------------|------|-----------------|----------------------|---------------|-------|----------|-------|-----------|
| 8225348 | OZ | Method Blank | Total Dustfall | | <1 | | mg | |
| | | | Total Fixed Dustfall | | <1 | | mg | |
| 8225348 | OZ | RPD [OH2374-01] | Total Dustfall | | NC | | % | N/A |
| | | | Total Fixed Dustfall | | NC | | % | N/A |

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

Maxxam Job #: B619795
Report Date: 2016/03/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/02/08 - 2016/03/09
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 428049
Your Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/04/22
Report #: R2161955
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B627950
Received: 2016/04/15, 09:43

Sample Matrix: Air
Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|---|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/04/22 | 2016/04/22 | PTC SOP-00180 | |
| Total & Fixed Dustfall | 4 | 2016/04/22 | 2016/04/22 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/04/22 | 2016/04/22 | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
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Maxxam Job #: B627950
Report Date: 2016/04/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OL4562 | OL4563 | OL4564 | OL4565 | | |
|----------------------------------|--------------|------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/03/09 | 2016/03/09 | 2016/03/09 | 2016/03/09 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 32 | 32 | 32 | 32 | 1 | 8250035 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 4 | 5 | 16 | 7 | 1 | 8250032 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.041 | 0.055 | 0.179 | 0.076 | 0.001 | 8250033 |
| Total Fixed Dustfall | mg | 4 | 4 | 16 | 6 | 1 | 8250032 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.041 | 0.048 | 0.179 | 0.069 | 0.001 | 8250033 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B627950
Report Date: 2016/04/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B627950
Report Date: 2016/04/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---|------|--------------|----------------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8250032 | OZ | Method Blank | Total Dustfall | 2016/04/22 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/04/22 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B627950
Report Date: 2016/04/22

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 428049
 Your Project #: 2016/03/09 - 2016/04/10
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA JOY 1C0

Report Date: 2016/04/21
 Report #: R2160835
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B627952

Received: 2016/04/15, 09:45

Sample Matrix: Air
 # Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/04/21 | 2016/04/21 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/04/21 | 2016/04/21 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager

Email: LManchak@maxxam.ca

Phone# (780)468-3536

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B627952
Report Date: 2016/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OL4570 | OL4571 | | OL4572 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/03/09 10:45 | 2016/03/09 10:02 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | <0.1 | <0.1 | 0.1 | | 8248527 |
| NO2 | ppm | | | | 0.10 | 8248530 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B627952
Report Date: 2016/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B627952
Report Date: 2016/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---------|------|--------------|----------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8248527 | SS6 | Spiked Blank | Calculated NO2 | 2016/04/21 | | 99 | % | 90 - 110 |
| 8248527 | SS6 | Method Blank | Calculated NO2 | 2016/04/21 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B627952
Report Date: 2016/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2016/03/09 - 2016/04/10
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 428049
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/04/25
Report #: R2163897
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B627927
Received: 2016/04/15, 09:22

Sample Matrix: Filter
Samples Received: 29

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 29 | N/A | 2016/04/25 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B627927
Report Date: 2016/04/25

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OL4452 | OL4453 | OL4454 | OL4455 | OL4456 | | |
|----------------------------------|-----------|---------------|---------------|---------------|---------------|---------------|-----|----------|
| Sampling Date | | 2016/03/01 | 2016/03/07 | 2016/03/13 | 2016/03/19 | 2016/02/24 | | |
| | UNITS | PM2.5 RP58034 | PM2.5 RP17876 | PM2.5 RP44277 | PM2.5 RP14087 | PM2.5 RP15480 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 4 | 40 | 30 | 23 | 21 | 3 | 8251057 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OL4457 | OL4458 | OL4459 | OL4460 | OL4461 | OL4462 | | |
|----------------------------------|-----------|---------------|-------------|---------------|-------------|--------------|-------------|-----|----------|
| Sampling Date | | 2016/03/01 | 2016/03/07 | 2016/03/13 | 2016/03/01 | 2016/03/07 | 2016/03/13 | | |
| | UNITS | PM2.5 RP54412 | PM2.5 RP919 | PM2.5 RP27518 | PM10 RP9932 | PM10 RP89980 | PM10 RP4233 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | |
| Particulate Matter | ug/filter | 15 | 3 | 17 | 27 | 63 | 95 | 3 | 8251057 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OL4463 | OL4464 | OL4466 | OL4467 | OL4468 | OL4469 | | |
|----------------------------------|-----------|--------------|-------------|-------------|--------------|--------------|------------|-----|----------|
| Sampling Date | | 2016/03/19 | 2016/02/24 | 2016/03/01 | 2016/03/07 | 2016/03/13 | 2016/03/19 | | |
| | UNITS | PM10 RP17816 | PM10 RP1574 | PM10 RP2876 | PM10 RP22665 | PM10 RP10077 | PM10 RP884 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | |
| Particulate Matter | ug/filter | 34 | 31 | 23 | 3 | <3 | 22 | 3 | 8251057 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OL4470 | OL4471 | OL4472 | OL4473 | OL4474 | OL4475 | OL4476 | | |
|----------------------------------|-----------|-------------|-------------|------------|------------|------------|-------------|------------|-----|----------|
| Sampling Date | | 2016/03/01 | 2016/03/07 | 2016/03/13 | 2016/03/19 | 2016/02/24 | 2016/03/01 | 2016/03/07 | | |
| | UNITS | TSP RP20636 | TSP RP28673 | TSP RP889 | TSP RP903 | TSP RP2884 | TSP RP90582 | TSP RP2875 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | | |
| Particulate Matter | ug/filter | 43 | 40 | 23 | 58 | 232 | 46 | 31 | 3 | 8251057 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

| Maxxam ID | | OL4477 | OL4478 | OL4479 | OL4481 | | OM8661 | | |
|----------------------------------|-----------|-------------|-------------|---------------------|-----------|----------|---------|-----|----------|
| Sampling Date | | 2016/03/13 | 2016/03/19 | | | | | | |
| | UNITS | TSP RP27516 | TSP RP27721 | TRAVEL BLANK RP1114 | LAB BLANK | QC Batch | RP01127 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | |
| Particulate Matter | ug/filter | 5 | 43 | 4 | 3 | 8251057 | 140 | 3 | 8251319 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B627927
Report Date: 2016/04/25

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Sample OM8661-01 : Sample does not appear on COC.


Results relate only to the items tested.

Maxxam Job #: B627927
Report Date: 2016/04/25

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 428049
Your Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/05/19
Report #: R2183997
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B636353

Received: 2016/05/12, 10:17

Sample Matrix: Air
Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|-------------------|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/05/18 | 2016/05/18 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 4 | 2016/05/18 | 2016/05/18 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/05/18 | 2016/05/18 | PTC SOP-00146 | |
| | | | | PTC SOP-00154 | |
| | | | | PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B636353
Report Date: 2016/05/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OP6641 | OP6642 | OP6643 | OP6644 | | |
|----------------------------------|--------------|------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/04/10 | 2016/04/10 | 2016/04/10 | 2016/04/10 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 25 | 25 | 25 | 25 | 1 | 8272558 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 4 | <1 | 5 | 4 | 1 | 8272555 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.053 | 0.009 | 0.079 | 0.062 | 0.001 | 8272556 |
| Total Fixed Dustfall | mg | 4 | <1 | 4 | 3 | 1 | 8272555 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.053 | <0.001 | 0.053 | 0.044 | 0.001 | 8272556 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B636353
Report Date: 2016/05/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B636353
Report Date: 2016/05/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT


| QA/QC | | | | Date | | | | |
|---|------|--------------|----------------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8272555 | SS6 | Method Blank | Total Dustfall | 2016/05/18 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/05/18 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B636353
Report Date: 2016/05/19

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 428049
Your Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/05/20
Report #: R2184464
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B636349
Received: 2016/05/12, 10:13

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/05/18 | 2016/05/20 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/05/18 | 2016/05/18 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B636349
Report Date: 2016/05/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OP6632 | OP6633 | | OP6634 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/04/10 16:32 | 2016/04/10 15:41 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 0.4 | 1.1 | 0.1 | | 8272526 |
| NO2 | ppm | | | | 0.07 | 8272528 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B636349
Report Date: 2016/05/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B636349
Report Date: 2016/05/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---------|------|--------------|----------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8272526 | SS6 | Spiked Blank | Calculated NO2 | 2016/05/18 | | 99 | % | 90 - 110 |
| 8272526 | SS6 | Method Blank | Calculated NO2 | 2016/05/18 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B636349
Report Date: 2016/05/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/04/10 - 2016/05/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

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Your P.O. #: 428049
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/05/20
Report #: R2184780
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B636356
Received: 2016/05/12, 10:21

Sample Matrix: Filter
Samples Received: 26

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 26 | N/A | 2016/05/20 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====

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Maxxam Job #: B636356
Report Date: 2016/05/20

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OP6670 | OP6671 | OP6672 | OP6673 | OP6674 | | |
|---------------|-------|---------------|---------------|---------------|--------------|---------------|-----|----------|
| Sampling Date | | 2016/03/25 | 2016/03/31 | 2016/04/06 | 2016/04/12 | 2016/03/19 | | |
| | UNITS | PM2.5 RP89982 | PM2.5 RP10074 | PM2.5 RP27477 | PM2.5 RP9906 | PM2.5 RP27329 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|---|----|----|---|---------|
| Particulate Matter | ug/filter | 11 | 11 | 6 | 16 | 39 | 3 | 8275939 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OP6675 | OP6676 | OP6677 | OP6678 | OP6679 | | |
|---------------|-------|---------------|---------------|---------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/03/25 | 2016/03/31 | 2016/04/06 | 2016/03/25 | 2016/03/31 | | |
| | UNITS | PM2.5 RP15543 | PM2.5 RP20697 | PM2.5 RP10081 | PM10 RP4246 | PM10 RP9924 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 45 | 42 | 31 | 48 | 48 | 3 | 8275939 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OP6680 | OP6681 | OP6682 | OP6683 | OP6684 | | |
|---------------|-------|--------------|--------------|--------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/04/06 | 2016/04/12 | 2016/03/25 | 2016/03/31 | 2016/04/06 | | |
| | UNITS | PM10 RP15522 | PM10 RP27582 | PM10 RP15564 | PM10 RP76324 | PM10 RP15509 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 56 | 40 | 20 | 30 | 47 | 3 | 8275939 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OP6685 | OP6687 | OP6688 | OP6689 | OP6690 | OP6691 | | |
|---------------|-------|--------------|------------|-------------|------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/04/12 | 2016/03/31 | 2016/04/06 | 2016/04/12 | 2016/04/18 | 2016/03/25 | | |
| | UNITS | PM10 RP15277 | TSP RP1128 | TSP RP22209 | TSP RP894 | TSP RP15533 | TSP RP22215 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|-----|------|------|-----|-----|----|---|---------|
| Particulate Matter | ug/filter | 157 | 1760 | 2920 | 387 | 269 | 77 | 3 | 8275939 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OP6692 | OP6693 | OP6694 | OP6696 | OP6697 | | |
|---------------|-------|------------|-------------|------------|----------------------|-----------|-----|----------|
| Sampling Date | | 2016/03/31 | 2016/04/06 | 2016/04/12 | | | | |
| | UNITS | TSP RP1116 | TSP RP15525 | TSP RP9911 | TRAVEL BLANK RP16564 | LAB BLANK | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|-----|-----|------|----|----|---|---------|
| Particulate Matter | ug/filter | 148 | 630 | 3640 | <3 | <3 | 3 | 8275939 |
| RDL = Reportable Detection Limit | | | | | | | | |

Maxxam Job #: B636356
Report Date: 2016/05/20

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Sample OP6688-01 : Particulate visible on filter.

Sample OP6694-01 : Filter damaged with visible particulate.

Results relate only to the items tested.

Maxxam Job #: B636356
Report Date: 2016/05/20

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 428049
 Your Project #: 2016/05/05 - 2016/06/05
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA JOY 1C0

Report Date: 2016/06/20
 Report #: R2201892
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B647083

Received: 2016/06/14, 10:56

Sample Matrix: Air
 # Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/06/20 | 2016/06/20 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/06/20 | 2016/06/20 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager

Email: LManchak@maxxam.ca

Phone# (780)468-3536

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B647083
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OV1297 | OV1298 | | OV1299 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/05/05 15:07 | 2016/05/05 14:18 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | <0.1 | 0.9 | 0.1 | | 8304480 |
| NO2 | ppm | | | | 0.02 | 8304482 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B647083
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B647083
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|----------------|------|--------------|----------------|------------------|-------|----------|-------|-----------|
| 8304480 | SS6 | Spiked Blank | Calculated NO2 | 2016/06/20 | | 100 | % | 90 - 110 |
| 8304480 | SS6 | Method Blank | Calculated NO2 | 2016/06/20 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B647083
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 428049
 Your Project #: 2016/05/05 - 2016/06/05
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA JOY 1C0

Report Date: 2016/06/20
 Report #: R2201847
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B647093

Received: 2016/06/14, 11:05

Sample Matrix: Air
 # Samples Received: 3

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|-------------------|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 3 | 2016/06/20 | 2016/06/20 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 3 | 2016/06/20 | 2016/06/20 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 3 | 2016/06/20 | 2016/06/20 | PTC SOP-00146 | |
| | | | | PTC SOP-00154 | |
| | | | | PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager
 Email: LManchak@maxxam.ca
 Phone# (780)468-3536

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B647093
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | OV1367 | OV1368 | OV1369 | | |
|----------------------------------|--------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/05/05 | 2016/05/05 | 2016/05/05 | | |
| | UNITS | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | |
| Exposure | days | 31 | 31 | 31 | 1 | 8304700 |
| Dustfall Determination | | | | | | |
| Total Dustfall | mg | 16 | 10 | 6 | 1 | 8304697 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.185 | 0.121 | 0.071 | 0.001 | 8304698 |
| Total Fixed Dustfall | mg | 12 | 9 | 4 | 1 | 8304697 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.142 | 0.107 | 0.043 | 0.001 | 8304698 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B647093
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B647093
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---|------|--------------|----------------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8304697 | OZ | Method Blank | Total Dustfall | 2016/06/20 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/06/20 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B647093
Report Date: 2016/06/20

Agnico Eagle Mines Ltd.
Client Project #: 2016/05/05 - 2016/06/05
Site Location: BAKER LAKE, NU
Your P.O. #: 428049

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/06/21
Report #: R2202953
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B647095
Received: 2016/06/14, 11:13

Sample Matrix: Filter
Samples Received: 49

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 49 | N/A | 2016/06/21 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B647095
Report Date: 2016/06/21

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OV1375 | OV1376 | OV1377 | OV1378 | OV1379 | | |
|---------------|-------|---------------|--------------|--------------|--------------|---------------|-----|----------|
| Sampling Date | | 2016/04/18 | 2016/04/24 | 2016/04/30 | 2016/05/06 | 2016/05/12 | | |
| | UNITS | PM2.5 RP92785 | PM2.5 RP1107 | PM2.5 RP1095 | PM2.5 RP1094 | PM2.5 RP22200 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|---|----|---|---|---------|
| Particulate Matter | ug/filter | 12 | 11 | 8 | 15 | 7 | 3 | 8306309 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OV1380 | OV1381 | OV1382 | OV1383 | OV1416 | | |
|---------------|-------|---------------|---------------|---------------|-------------|---------------|-----|----------|
| Sampling Date | | 2016/05/18 | 2016/05/24 | 2016/05/30 | 2016/04/18 | 2016/04/24 | | |
| | UNITS | PM2.5 RP27278 | PM2.5 RP82060 | PM2.5 RP26376 | PM2.5 RP910 | PM2.5 RP13291 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|---|---|----|----|----|---|---------|
| Particulate Matter | ug/filter | 7 | 8 | 14 | 62 | 52 | 3 | 8306309 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OV1417 | OV1418 | OV1419 | OV1420 | OV1421 | | |
|---------------|-------|--------------|---------------|---------------|-------------|--------------|-----|----------|
| Sampling Date | | 2016/04/30 | 2016/05/06 | 2016/05/12 | 2016/05/18 | 2016/05/24 | | |
| | UNITS | PM2.5 RP1109 | PM2.5 RP15242 | PM2.5 RP10064 | PM2.5 RP902 | PM2.5 RP9917 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 41 | 35 | 31 | 22 | 36 | 3 | 8306309 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OV1422 | OV1423 | OV1424 | OV1425 | OV1449 | | |
|---------------|-------|---------------|--------------|--------------|-------------|--------------|-----|----------|
| Sampling Date | | 2016/05/30 | 2016/04/18 | 2016/04/24 | 2016/04/30 | 2016/05/06 | | |
| | UNITS | PM2.5 RP27429 | PM10 RP72309 | PM10 RP10311 | PM10 RP1108 | PM10 RP15505 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|-----|----|----|-----|---|---------|
| Particulate Matter | ug/filter | 22 | 104 | 87 | 68 | 204 | 3 | 8306309 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | OV1450 | OV1451 | OV1452 | OV1453 | OV1454 | OV1455 | | |
|---------------|-------|-------------|-------------|--------------|--------------|------------|--------------|-----|----------|
| Sampling Date | | 2016/05/12 | 2016/05/18 | 2016/05/24 | 2016/05/30 | 2016/04/18 | 2016/04/24 | | |
| | UNITS | PM10 RP1105 | PM10 RP1112 | PM10 RP22217 | PM10 RP15549 | PM10 RP929 | PM10 RP10346 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|-----|----|-----|-----|----|-----|---|---------|
| Particulate Matter | ug/filter | 117 | 99 | 161 | 176 | 53 | 142 | 3 | 8306309 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B647095
Report Date: 2016/06/21

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | OV1456 | OV1457 | OV1458 | OV1460 | | OV1461 | | |
|---------------|-------|--------------|--------------|--------------|--------------|----------|-------------|-----|----------|
| Sampling Date | | 2016/04/30 | 2016/05/06 | 2016/05/12 | 2016/05/18 | | 2016/05/24 | | |
| | UNITS | PM10 RP87500 | PM10 RP15157 | PM10 RP46673 | PM10 RP15523 | QC Batch | PM10 RP1098 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|-----|-----|----|----|---------|-----|---|---------|
| Particulate Matter | ug/filter | 151 | 323 | 71 | 73 | 8306309 | 264 | 3 | 8306310 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OV1462 | OV1463 | OV1464 | OV1465 | OV1466 | OV1467 | | |
|---------------|-------|-------------|-------------|------------|-------------|------------|------------|-----|----------|
| Sampling Date | | 2016/05/30 | 2016/04/24 | 2016/04/30 | 2016/05/06 | 2016/05/12 | 2016/05/18 | | |
| | UNITS | PM10 RP9926 | TSP RP72140 | TSP RP1111 | TSP RP89984 | TSP RP1102 | TSP RP1103 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|------|-----|----|-----|-----|---|---------|
| Particulate Matter | ug/filter | 89 | 1720 | 137 | 82 | 161 | 101 | 3 | 8306310 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OV1468 | OV1469 | OV1474 | OV1475 | OV1476 | OV1477 | | |
|---------------|-------|-------------|-------------|-------------|------------|-------------|------------|-----|----------|
| Sampling Date | | 2016/05/24 | 2016/05/30 | 2016/04/18 | 2016/04/24 | 2016/04/30 | 2016/05/06 | | |
| | UNITS | TSP RP27287 | TSP RP10063 | TSP RP17823 | TSP RP1106 | TSP RP91098 | TSP RP1089 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|-----|------|-----|-----|-----|---|---------|
| Particulate Matter | ug/filter | 57 | 235 | 1720 | 584 | 327 | 391 | 3 | 8306310 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | OV1478 | OV1479 | OV1480 | OV1481 | OV1482 | OV1483 | | |
|---------------|-------|-------------|-------------|-------------|------------|----------------------|--------|-----|----------|
| Sampling Date | | 2016/05/12 | 2016/05/18 | 2016/05/24 | 2016/05/30 | | | | |
| | UNITS | TSP RP10348 | TSP RP14085 | TSP RP71615 | TSP RP1097 | TRAVEL BLANK RP10352 | BLANK | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|-----|----|-----|-----|---|---|---|---------|
| Particulate Matter | ug/filter | 217 | 91 | 420 | 147 | 7 | 6 | 3 | 8306310 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B647095
Report Date: 2016/06/21

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

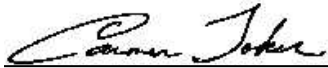
Results relate only to the items tested.

Maxxam Job #: B647095
Report Date: 2016/06/21

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Carmen Toker, CT, Manager Air Laboratory Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
 Your Project #: 2016/07/07 - 2016/08/06
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA JOY 1C0

Report Date: 2016/08/18
 Report #: R2240129
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B667731
Received: 2016/08/12, 14:40

Sample Matrix: Air
 # Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|-------------------|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/08/18 | 2016/08/18 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 4 | 2016/08/18 | 2016/08/18 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/08/18 | 2016/08/18 | PTC SOP-00146 | |
| | | | | PTC SOP-00154 | |
| | | | | PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
 Levi Manchak, Project Manager
 Email: LManchak@maxxam.ca
 Phone# (780)468-3536

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B667731
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PG1131 | PG1132 | PG1133 | PG1134 | | |
|----------------------------------|--------------|---------------------|---------------------|---------------------|---------------------|-------|----------|
| Sampling Date | | 2016/07/07 17:26 | 2016/07/07 17:09 | 2016/07/07 17:23 | 2016/07/07 17:12 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 30 | 30 | 30 | 30 | 1 | 8367742 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 55 | 10 | 4 | 14 | 1 | 8367739 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.669 | 0.118 | 0.051 | 0.176 | 0.001 | 8367740 |
| Total Fixed Dustfall | mg | 30 | 7 | 4 | 10 | 1 | 8367739 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.367 | 0.088 | 0.044 | 0.125 | 0.001 | 8367740 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B667731
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B667731
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT


| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|---|------|--------------|----------------------|------------------|-------|----------|-------|-----------|
| 8367739 | OZ | Method Blank | Total Dustfall | 2016/08/18 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/08/18 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B667731
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
Your Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/08/18
Report #: R2239941
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B667735

Received: 2016/08/12, 14:44

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/08/17 | 2016/08/18 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/08/17 | 2016/08/17 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager

Email: LManchak@maxxam.ca

Phone# (780)468-3536

=====

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Maxxam Job #: B667735
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PG1140 | PG1141 | | PG1142 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/07/07 17:26 | 2016/07/07 17:09 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 1.2 | 2.4 | 0.1 | | 8366153 |
| NO2 | ppm | | | | 0.01 | 8366164 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B667735
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B667735
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|----------------|------|--------------|----------------|------------------|-------|----------|-------|-----------|
| 8366153 | SS6 | Spiked Blank | Calculated NO2 | 2016/08/17 | | 97 | % | 90 - 110 |
| 8366153 | SS6 | Method Blank | Calculated NO2 | 2016/08/17 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B667735
Report Date: 2016/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/07 - 2016/08/06
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
Your Project #: 2016/07/10 - 2016/08/11
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/08/29
Report #: R2249042
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B671032

Received: 2016/08/22, 12:06

Sample Matrix: Air
Samples Received: 47

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|---|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 17 | 2016/08/24 | 2016/08/25 | | PTC SOP-00180 |
| Determination of Dustfall-mg/cm2/30 days | 28 | 2016/08/24 | 2016/08/29 | | PTC SOP-00180 |
| Determination of Dustfall-mg/cm2/30 days | 2 | 2016/08/25 | 2016/08/29 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 17 | 2016/08/24 | 2016/08/25 | PTC SOP-00180 | AMD 32020 |
| Total & Fixed Dustfall | 28 | 2016/08/24 | 2016/08/29 | PTC SOP-00180 | AMD 32020 |
| Total & Fixed Dustfall | 2 | 2016/08/25 | 2016/08/29 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 45 | 2016/08/24 | 2016/08/24 | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |
| Exposure (Number of days) | 2 | 2016/08/25 | 2016/08/25 | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
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Maxxam Job #: B671032
Report Date: 2016/08/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/10 - 2016/08/11
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PI0298 | PI0299 | PI0300 | PI0301 | PI0309 | PI0310 | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 11:10 | 2016/07/10 11:10 | 2016/07/10 11:18 | 2016/07/10 10:30 | 2016/07/10 11:20 | 2016/07/10 16:15 | | |
| | UNITS | DF-18W-25 | DF-18W-50 | DF-18-100 | DF-18E-25 | DF-18W-150 | DF-50W-1000 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 32 | 32 | 32 | 32 | 1 | 8375227 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 40 | 46 | 21 | 53 | 98 | 3 | 1 | 8375224 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.461 | 0.530 | 0.241 | 0.606 | 1.130 | 0.034 | 0.001 | 8375225 |
| Total Fixed Dustfall | mg | 39 | 44 | 20 | 49 | 22 | 2 | 1 | 8375224 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.448 | 0.510 | 0.227 | 0.565 | 0.255 | 0.021 | 0.001 | 8375225 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PI0311 | PI0312 | PI0313 | PI0314 | PI0315 | PI0316 | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 15:55 | 2016/07/10 16:00 | 2016/07/10 15:55 | 2016/07/10 15:57 | 2016/07/10 16:00 | 2016/07/10 15:20 | | |
| | UNITS | DF-50W-150 | DF-50W-300 | DF-50W-25 | DF-50W-50 | DF-50W-100 | DF-50E-150 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 32 | 32 | 32 | 32 | 1 | 8375227 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 5 | 5 | 74 | 37 | 10 | 15 | 1 | 8375224 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.062 | 0.062 | 0.854 | 0.420 | 0.117 | 0.172 | 0.001 | 8375225 |
| Total Fixed Dustfall | mg | 5 | 5 | 73 | 33 | 9 | 14 | 1 | 8375224 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.062 | 0.055 | 0.840 | 0.379 | 0.103 | 0.158 | 0.001 | 8375225 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PI0317 | PI0318 | PI0319 | PI0320 | PI0321 | PI0322 | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 15:18 | 2016/07/10 15:20 | 2016/07/10 15:14 | 2016/07/10 15:36 | 2016/07/10 15:16 | 2016/07/10 13:45 | | |
| | UNITS | DF-50E-100 | DF-50E-300 | DF-50E-25 | DF-50E-1000 | DF-50E-50 | DF-25W-100 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 32 | 32 | 32 | 32 | 1 | 8375227 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 9 | 9 | 51 | 10 | 24 | 22 | 1 | 8375224 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.103 | 0.103 | 0.585 | 0.110 | 0.275 | 0.255 | 0.001 | 8375225 |
| Total Fixed Dustfall | mg | 9 | 7 | 50 | 7 | 23 | 18 | 1 | 8375224 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.103 | 0.083 | 0.579 | 0.083 | 0.269 | 0.207 | 0.001 | 8375225 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B671032
Report Date: 2016/08/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/10 - 2016/08/11
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PI0323 | PI0324 | PI0325 | PI0326 | PI0327 | PI0328 | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 13:39 | 2016/07/10 13:47 | 2016/07/10 13:43 | 2016/07/10 12:52 | 2016/07/10 12:48 | 2016/07/10 13:10 | | |
| | UNITS | DF-25W-25 | DF-25W-150 | DF-25W-50 | DF-25E-100 | DF-25E-50 | DF-25E-150 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 32 | 32 | 32 | 32 | 1 | 8375227 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 74 | 25 | 24 | 110 | 16 | 30 | 1 | 8375224 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.847 | 0.281 | 0.275 | 1.288 | 0.186 | 0.344 | 0.001 | 8375225 |
| Total Fixed Dustfall | mg | 67 | 22 | 22 | 24 | 14 | 5 | 1 | 8375224 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.771 | 0.257 | 0.255 | 0.275 | 0.158 | 0.062 | 0.001 | 8375225 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PI0329 | PI0330 | | PI0331 | PI0332 | PI0333 | | |
|---------------|--------------|----------------------|---------------------|-----------------|---------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 12:48 | 2016/07/10 12:48 | | 2016/07/10 12:58 | 2016/07/10 13:51 | 2016/07/10 14:00 | | |
| | UNITS | DF-25E-50 DUP | DF-25E-25 | QC Batch | DF-25E-300 | DF-25W-300 | DF-25W-1000 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|---------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 8375227 | 32 | 32 | 32 | 1 | 8375227 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 19 | 23 | 8375224 | 15 | 13 | 11 | 1 | 8375229 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.214 | 0.262 | 8375225 | 0.172 | 0.145 | 0.124 | 0.001 | 8375225 |
| Total Fixed Dustfall | mg | 16 | 19 | 8375224 | 13 | 10 | 7 | 1 | 8375229 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.186 | 0.220 | 8375225 | 0.145 | 0.110 | 0.083 | 0.001 | 8375225 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PI0334 | | PI0335 | PI0336 | PI0337 | PI0338 | | |
|---------------|--------------|---------------------|-----------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 09:35 | | 2016/07/10 09:46 | 2016/07/10 09:35 | 2016/07/10 09:38 | 2016/07/10 09:44 | | |
| | UNITS | DF-11W-25 | QC Batch | DF-11W-150 | DF-11W-50 | DF-11W-100 | DF-11W-300 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|---------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 8375227 | 32 | 32 | 32 | 32 | 1 | 8375232 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 34 | 8375229 | 10 | 14 | 11 | 4 | 1 | 8375229 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.393 | 8375225 | 0.117 | 0.165 | 0.131 | 0.048 | 0.001 | 8375230 |
| Total Fixed Dustfall | mg | 32 | 8375229 | 8 | 11 | 8 | 3 | 1 | 8375229 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.372 | 8375225 | 0.096 | 0.124 | 0.090 | 0.034 | 0.001 | 8375230 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B671032
Report Date: 2016/08/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/10 - 2016/08/11
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PI0339 | PI0340 | PI0341 | PI0342 | PI0343 | | |
|---------------|--------------|---------------------|---------------------|------------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 11:45 | 2016/07/10 11:24 | 2016/07/10 10:00 | 2016/07/10 10:38 | 2016/07/10 10:00 | | |
| | UNITS | DF-18W-1000 | DF-18W-300 | DF-11W-1000 DUP | DF-18E-50 | DF-11E-1000 | RDL | QC Batch |

| Industrial | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 32 | 32 | 32 | 1 | 8375232 |
| Dustfall Determination | | | | | | | | |
| Total Dustfall | mg | 4 | 8 | 10 | 26 | 11 | 1 | 8375229 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.048 | 0.090 | 0.110 | 0.296 | 0.124 | 0.001 | 8375230 |
| Total Fixed Dustfall | mg | 3 | 7 | 5 | 23 | 7 | 1 | 8375229 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.034 | 0.083 | 0.062 | 0.269 | 0.076 | 0.001 | 8375230 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PI0344 | PI0345 | PI0346 | PI0347 | PI0348 | PI0505 | | |
|---------------|--------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 10:42 | 2016/07/10 10:55 | 2016/07/10 10:41 | 2016/07/10 09:20 | 2016/07/10 09:20 | 2016/07/10 09:22 | | |
| | UNITS | DF-18E-150 | DF-18E-300 | DF-18E-100 | DF-18E-150 | DF-11E-25 | DF-11E-300 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 32 | 32 | 32 | 32 | 1 | 8375232 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 16 | 16 | 29 | 6 | 31 | 8 | 1 | 8375229 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.179 | 0.186 | 0.331 | 0.069 | 0.358 | 0.090 | 0.001 | 8375230 |
| Total Fixed Dustfall | mg | 13 | 14 | 16 | 4 | 29 | 6 | 1 | 8375229 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.152 | 0.158 | 0.179 | 0.048 | 0.331 | 0.069 | 0.001 | 8375230 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PI7075 | PI7087 | | |
|---------------|--------------|---------------------|---------------------|------------|-----------------|
| Sampling Date | | 2016/07/10 09:21 | 2016/07/10 09:30 | | |
| | UNITS | DF-11E-100 | DF-11E-5 | RDL | QC Batch |

| Industrial | | | | | |
|----------------------------------|--------------|-------|-------|-------|---------|
| Exposure | days | 32 | 32 | 1 | 8375232 |
| Dustfall Determination | | | | | |
| Total Dustfall | mg | 10 | 18 | 1 | 8375229 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.110 | 0.207 | 0.001 | 8375230 |
| Total Fixed Dustfall | mg | 7 | 16 | 1 | 8375229 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.083 | 0.179 | 0.001 | 8375230 |
| RDL = Reportable Detection Limit | | | | | |

Maxxam Job #: B671032
Report Date: 2016/08/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/10 - 2016/08/11
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B671032
Report Date: 2016/08/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/10 - 2016/08/11
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|----------------|------|--------------|----------------------|------------------|-------|----------|-------|-----------|
| 8375224 | OZ | Method Blank | Total Dustfall | 2016/08/25 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/08/25 | <1 | | mg | |
| 8375229 | OZ | Method Blank | Total Dustfall | 2016/08/29 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/08/29 | <1 | | mg | |


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B671032
Report Date: 2016/08/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/07/10 - 2016/08/11
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/08/19
Report #: R2241569
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B668279
Received: 2016/08/15, 10:50

Sample Matrix: Filter
Samples Received: 26

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 26 | N/A | 2016/08/19 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====

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Maxxam Job #: B668279
Report Date: 2016/08/19

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | PG4350 | PG4351 | PG4352 | PG4353 | PG4354 | | |
|---------------|-------|--------------|--------------|---------------|-------------|---------------|-----|----------|
| Sampling Date | | 2016/07/11 | 2016/07/17 | 2016/07/23 | 2016/07/29 | 2016/08/04 | | |
| | UNITS | PM2.5 RP2875 | PM2.5 RP2884 | PM2.5 RP90554 | PM2.5 RP868 | PM2.5 RP17880 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | <3 | 21 | 20 | <3 | 10 | 3 | 8369462 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PG4355 | PG4356 | PG4357 | PG4358 | PG4359 | | |
|---------------|-------|--------------|--------------|---------------|-------------|--------------|-----|----------|
| Sampling Date | | 2016/07/11 | 2016/07/17 | 2016/07/23 | 2016/07/29 | 2016/07/11 | | |
| | UNITS | PM2.5 RP2876 | PM2.5 RP1127 | PM2.5 RP79489 | PM2.5 RP921 | PM10 RP89967 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|-----|---|---------|
| Particulate Matter | ug/filter | 30 | 17 | 34 | 62 | 233 | 3 | 8369462 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PG4360 | PG4361 | PG4362 | PG4363 | PG4364 | PG4365 | | |
|---------------|-------|--------------|-------------|--------------|--------------|------------|--------------|-----|----------|
| Sampling Date | | 2016/07/17 | 2016/07/23 | 2016/07/29 | 2016/08/04 | 2016/07/11 | 2016/07/17 | | |
| | UNITS | PM10 RP90582 | PM10 RP9908 | PM10 RP15551 | PM10 RP76204 | PM10 RP889 | PM10 RP44277 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|-----|-----|----|-----|----|----|---|---------|
| Particulate Matter | ug/filter | 244 | 403 | 18 | 445 | 42 | 25 | 3 | 8369462 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PG4366 | PG4367 | PG4368 | PG4369 | PG4370 | PG4371 | | |
|---------------|-------|--------------|--------------|-------------|-------------|-------------|------------|-----|----------|
| Sampling Date | | 2016/07/23 | 2016/07/29 | 2016/07/11 | 2016/08/04 | 2016/07/11 | 2016/07/17 | | |
| | UNITS | PM10 RP24907 | PM10 RP15145 | TSP RP27516 | TSP RP20571 | TSP RP22665 | TSP RP891 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|----|-----|----|-----|-----|---|---------|
| Particulate Matter | ug/filter | 24 | 96 | 357 | 59 | 118 | 115 | 3 | 8369462 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PG4372 | PG4373 | PG4386 | PG4387 | | |
|---------------|-------|------------|------------|----------------------|--------|-----|----------|
| Sampling Date | | 2016/07/23 | 2016/07/29 | | | | |
| | UNITS | TSP RP906 | TSP RP9943 | TRAVEL BLANK RP17774 | BLANK | RDL | QC Batch |

| PM2.5/10 | | | | | | | |
|----------------------------------|-----------|----|-----|----|---|---|---------|
| Particulate Matter | ug/filter | 57 | 222 | 10 | 6 | 3 | 8369462 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B668279
Report Date: 2016/08/19

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B668279
Report Date: 2016/08/19

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/08/04
Report #: R2228729
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B662621

Received: 2016/07/29, 09:42

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/08/03 | 2016/08/04 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/08/03 | 2016/08/03 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager

Email: LManchak@maxxam.ca

Phone# (780)468-3536

=====

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Maxxam Job #: B662621
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PD1119 | PD1120 | | PD1121 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/06/05 10:25 | 2016/06/05 10:55 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 0.5 | 1.0 | 0.1 | | 8349961 |
| NO2 | ppm | | | | 0.08 | 8349958 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B662621
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B662621
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|----------------|------|--------------|----------------|------------------|-------|----------|-------|-----------|
| 8349961 | YL6 | Spiked Blank | Calculated NO2 | 2016/08/03 | | 97 | % | 90 - 110 |
| 8349961 | YL6 | Method Blank | Calculated NO2 | 2016/08/03 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B662621
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
 Your Project #: 2016/06/05 - 2016/07/07
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA JOY 1C0

Report Date: 2016/08/04
 Report #: R2229025
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B662626
Received: 2016/07/29, 09:49

Sample Matrix: Air
 # Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|-------------------|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/08/04 | 2016/08/04 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 4 | 2016/08/04 | 2016/08/04 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/08/04 | 2016/08/04 | PTC SOP-00146 | |
| | | | | PTC SOP-00154 | |
| | | | | PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
 Levi Manchak, Project Manager
 Email: LManchak@maxxam.ca
 Phone# (780)468-3536

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B662626
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PD1128 | PD1130 | PD1131 | PD1132 | | |
|----------------------------------|--------------|------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/06/05 | 2016/06/05 | 2016/06/05 | 2016/06/05 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 32 | 32 | 32 | 32 | 1 | 8351448 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 10 | 14 | 10 | 12 | 1 | 8351445 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.117 | 0.165 | 0.110 | 0.138 | 0.001 | 8351446 |
| Total Fixed Dustfall | mg | 7 | 9 | 7 | 8 | 1 | 8351445 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.083 | 0.103 | 0.076 | 0.096 | 0.001 | 8351446 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B662626
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B662626
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT


| QA/QC | | | | Date | | | | |
|---|------|--------------|----------------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8351445 | OZ | Method Blank | Total Dustfall | 2016/08/04 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/08/04 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B662626
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: 2016/06/05 - 2016/07/07
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/08/04
Report #: R2228650
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B662634
Received: 2016/07/29, 09:53

Sample Matrix: Filter
Samples Received: 38

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|-------------------------------|----------|-----------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| Mass Determination(ug/filter) | 16 | N/A | 2016/08/02 | PTC SOP-00151 | EPA 2.12 Monitoring |
| Mass Determination(ug/filter) | 22 | N/A | 2016/08/04 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
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Maxxam Job #: B662634
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | PD1143 | PD1144 | PD1145 | PD1146 | PD1147 | | |
|---------------|-------|---------------|---------------|---------------|---------------|---------------|-----|----------|
| Sampling Date | | 2016/06/05 | 2016/06/11 | 2016/06/17 | 2016/06/23 | 2016/06/29 | | |
| | UNITS | PM2.5 RP58031 | PM2.5 RP27773 | PM2.5 RP87498 | PM2.5 RP20636 | PM2.5 RP27721 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 20 | 21 | 17 | 28 | 12 | 3 | 8348636 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PD1148 | PD1149 | PD1150 | PD1151 | PD1152 | | |
|---------------|-------|---------------|---------------|--------------|--------------|---------------|-----|----------|
| Sampling Date | | 2016/07/05 | 2016/06/05 | 2016/06/11 | 2016/06/17 | 2016/06/23 | | |
| | UNITS | PM2.5 RP58034 | PM2.5 RP91301 | PM2.5 RP4240 | PM2.5 RP9948 | PM2.5 RP17816 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 16 | 16 | 60 | 31 | 41 | 3 | 8348636 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PD1153 | PD1154 | PD1159 | PD1160 | PD1161 | PD1162 | | |
|---------------|-------|--------------|-------------|--------------|-------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/06/29 | 2016/07/05 | 2016/06/05 | 2016/06/11 | 2016/06/17 | 2016/06/23 | | |
| | UNITS | PM2.5 RP4233 | PM2.5 RP884 | PM10 RP15518 | PM10 RP1088 | PM10 RP13258 | PM10 RP89980 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|----|----|-----|-----|----|---|---------|
| Particulate Matter | ug/filter | 50 | 45 | 85 | 587 | 204 | 47 | 3 | 8348636 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PD1163 | PD1164 | PD1165 | PD1166 | | PD1167 | | |
|---------------|-------|--------------|------------|--------------|--------------|----------|--------------|-----|----------|
| Sampling Date | | 2016/06/29 | 2016/07/05 | 2016/06/05 | 2016/06/11 | | 2016/06/17 | | |
| | UNITS | PM10 RP10071 | PM10 RP903 | PM10 RP83735 | PM10 RP84085 | QC Batch | PM10 RP28688 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|-----|----|----|----|---------|----|---|---------|
| Particulate Matter | ug/filter | 158 | 88 | 31 | 52 | 8348636 | 53 | 3 | 8348647 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PD1168 | PD1169 | PD1170 | PD1175 | PD1176 | PD1177 | | |
|---------------|-------|--------------|--------------|--------------|-------------|------------|-------------|-----|----------|
| Sampling Date | | 2016/06/23 | 2016/06/29 | 2016/07/05 | 2016/06/05 | 2016/06/11 | 2016/06/17 | | |
| | UNITS | PM10 RP15480 | PM10 RP98002 | PM10 RP82070 | TSP RP10066 | TSP RP4250 | TSP RP27588 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|-----|-----|-----|-----|-----|---|---------|
| Particulate Matter | ug/filter | 96 | 553 | 175 | 108 | 157 | 129 | 3 | 8348647 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B662634
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | PD1178 | PD1179 | PD1180 | PD1181 | PD1182 | PD1183 | | |
|---------------|-------|------------|-------------|------------|-------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/06/23 | 2016/06/29 | 2016/07/05 | 2016/06/05 | 2016/06/11 | 2016/06/17 | | |
| | UNITS | TSP RP878 | TSP RP28673 | TSP RP919 | TSP RP22621 | TSP RP15114 | TSP RP17876 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|-----|-----|----|-----|----|---|---------|
| Particulate Matter | ug/filter | 29 | 174 | 718 | 56 | 105 | 77 | 3 | 8348647 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PD1184 | PD1185 | PD1186 | PD1190 | PD1191 | | |
|---------------|-------|-------------|-------------|-------------|----------------------|--------|-----|----------|
| Sampling Date | | 2016/06/23 | 2016/06/29 | 2016/07/05 | | | | |
| | UNITS | TSP RP10077 | TSP RP20615 | TSP RP14087 | TRAVEL BLANK RP27587 | BLANK | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|-----|-----|-----|----|----|---|---------|--|
| Particulate Matter | ug/filter | 144 | 514 | 590 | <3 | <3 | 3 | 8348647 | |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B662634
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

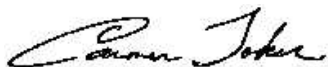
Results relate only to the items tested.

Maxxam Job #: B662634
Report Date: 2016/08/04

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Carmen Toker, CT, Manager Air Laboratory Services

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Your P.O. #: 495522
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/09/27
Report #: R2269246
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B682157

Received: 2016/09/21, 15:02

Sample Matrix: Filter
Samples Received: 38

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 38 | N/A | 2016/09/27 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

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Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

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Maxxam Job #: B682157
Report Date: 2016/09/27

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | PO3186 | PO3187 | PO3188 | PO3189 | PO3190 | | |
|---------------|-------|---------------|--------------|--------------|---------------|---------------|-----|----------|
| Sampling Date | | 2016/08/10 | 2016/08/16 | 2016/08/22 | 2016/08/28 | 2016/09/03 | | |
| | UNITS | PM2.5 RP16555 | PM2.5 RP9945 | PM2.5 RP1095 | PM2.5 RP72309 | PM2.5 RP54425 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|---|---|---------|
| Particulate Matter | ug/filter | 22 | 61 | 19 | 12 | 7 | 3 | 8412163 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PO3191 | PO3192 | PO3193 | PO3194 | PO3195 | | |
|---------------|-------|---------------|--------------|---------------|---------------|---------------|-----|----------|
| Sampling Date | | 2016/09/09 | 2016/08/04 | 2016/08/10 | 2016/08/16 | 2016/08/22 | | |
| | UNITS | PM2.5 RP10063 | PM2.5 RP9936 | PM2.5 RP89946 | PM2.5 RP82056 | PM2.5 RP15545 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 10 | 85 | 36 | 71 | 24 | 3 | 8412163 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PO3196 | PO3197 | PO3198 | PO3199 | PO3200 | | |
|---------------|-------|---------------|---------------|--------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/08/28 | 2016/09/03 | 2016/08/10 | 2016/08/16 | 2016/08/22 | | |
| | UNITS | PM2.5 RP22217 | PM2.5 RP22197 | PM10 RP10082 | PM10 RP22214 | PM10 RP40117 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|-----|-----|-----|---|---------|
| Particulate Matter | ug/filter | 22 | 31 | 180 | 188 | 435 | 3 | 8412163 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PO3201 | PO3202 | PO3203 | PO3204 | PO3205 | | |
|---------------|-------|--------------|-------------|--------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/08/28 | 2016/09/03 | 2016/09/09 | 2016/08/04 | 2016/08/10 | | |
| | UNITS | PM10 RP22023 | PM10 RP1102 | PM10 RP87482 | PM10 RP89959 | PM10 RP29748 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|-----|----|----|-----|----|---|---------|
| Particulate Matter | ug/filter | 194 | 51 | 50 | 282 | 72 | 3 | 8412163 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PO3206 | PO3207 | PO3208 | PO3209 | PO3210 | | |
|---------------|-------|--------------|--------------|------------|--------------|----------------------|-----|----------|
| Sampling Date | | 2016/08/16 | 2016/08/22 | 2016/08/28 | 2016/09/03 | | | |
| | UNITS | PM10 RP82055 | PM10 RP89984 | PM10 RP929 | PM10 RP83499 | TRAVEL BLANK RP23782 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|-----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 345 | 44 | 22 | 25 | <3 | 3 | 8412163 |
| RDL = Reportable Detection Limit | | | | | | | | |

Maxxam Job #: B682157
Report Date: 2016/09/27

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | PO3211 | PO3246 | PO3247 | PO3248 | PO3249 | | PO3250 | | |
|---------------|-------|--------|-------------|-------------|-------------|-------------|----------|------------|-----|----------|
| Sampling Date | | | 2016/08/10 | 2016/08/16 | 2016/08/22 | 2016/08/28 | | 2016/09/03 | | |
| | UNITS | BLANK | TSP RP92734 | TSP RP89969 | TSP RP27517 | TSP RP22903 | QC Batch | TSP RP1104 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | | |
|----------------------------------|-----------|----|----|-----|----|----|---------|----|---|---------|
| Particulate Matter | ug/filter | <3 | 90 | 192 | 79 | 54 | 8412163 | 56 | 3 | 8412164 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

| Maxxam ID | | PO3251 | PO3252 | PO3253 | PO3254 | PO3255 | PO3256 | PO3257 | | |
|---------------|-------|------------|------------|------------|------------|-------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/09/09 | 2016/08/04 | 2016/08/10 | 2016/08/16 | 2016/08/22 | 2016/08/28 | 2016/09/03 | | |
| | UNITS | TSP RP1110 | TSP RP877 | TSP RP902 | TSP RP9926 | TSP RP87504 | TSP RP87500 | TSP RP22212 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | | |
|----------------------------------|-----------|----|-----|-----|------|-----|----|----|---|---------|
| Particulate Matter | ug/filter | 50 | 346 | 142 | 1330 | 171 | 48 | 55 | 3 | 8412164 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

Maxxam Job #: B682157
Report Date: 2016/09/27

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS


Results relate only to the items tested.

Maxxam Job #: B682157
Report Date: 2016/09/27

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
Your Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/09/28
Report #: R2270578
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B681159

Received: 2016/09/19, 14:50

Sample Matrix: Air
Samples Received: 47

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|---|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 14 | 2016/09/21 | 2016/09/22 | | PTC SOP-00180 |
| Determination of Dustfall-mg/cm2/30 days | 16 | 2016/09/22 | 2016/09/23 | | PTC SOP-00180 |
| Determination of Dustfall-mg/cm2/30 days | 17 | 2016/09/27 | 2016/09/28 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 14 | 2016/09/21 | 2016/09/22 | PTC SOP-00180 | AMD 32020 |
| Total & Fixed Dustfall | 16 | 2016/09/22 | 2016/09/23 | PTC SOP-00180 | AMD 32020 |
| Total & Fixed Dustfall | 17 | 2016/09/27 | 2016/09/28 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 42 | 2016/09/21 | 2016/09/21 | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |
| Exposure (Number of days) | 5 | 2016/09/22 | 2016/09/22 | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
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Maxxam Job #: B681159
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PN7973 | PN7974 | PN7975 | PN7976 | PN7977 | PN7978 | | |
|---------------|-------|-------------|-------------|--------------|--------------|--------------|-------------|-----|----------|
| Sampling Date | | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | | |
| | UNITS | DF-78E-25-1 | DF-78E-50-1 | DF-78E-100-1 | DF-78E-150-1 | DF-78E-300-1 | DF-78E-25-2 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 29 | 29 | 29 | 29 | 29 | 29 | 1 | 8406033 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 80 | 32 | 22 | 18 | 13 | 110 | 1 | 8406023 |
| Total Dustfall (30 day) | mg/cm2/30day | 1.018 | 0.410 | 0.281 | 0.228 | 0.160 | 1.452 | 0.001 | 8406029 |
| Total Fixed Dustfall | mg | 77 | 30 | 20 | 16 | 11 | 110 | 1 | 8406023 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.973 | 0.380 | 0.251 | 0.205 | 0.137 | 1.383 | 0.001 | 8406029 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PN7979 | PN7980 | PN7981 | PN7982 | PN7983 | PN7984 | | |
|---------------|-------|-------------|--------------|--------------|--------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | | |
| | UNITS | DF-78E-50-2 | DF-78E-100-2 | DF-78E-150-2 | DF-78E-300-2 | DF-78W-25-1 | DF-78W-50-1 | RDL | QC Batch |

| Industrial | | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 29 | 29 | 29 | 29 | 29 | 29 | 1 | 8406033 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 35 | 22 | 17 | 14 | 94 | 65 | 1 | 8406023 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.441 | 0.281 | 0.220 | 0.175 | 1.193 | 0.821 | 0.001 | 8406029 |
| Total Fixed Dustfall | mg | 32 | 21 | 16 | 11 | 91 | 62 | 1 | 8406023 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.410 | 0.266 | 0.205 | 0.144 | 1.155 | 0.790 | 0.001 | 8406029 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PN7985 | PN7986 | | PN7987 | PN7988 | | |
|---------------|-------|--------------|--------------|----------|--------------|---------------|-----|----------|
| Sampling Date | | 2016/08/12 | 2016/08/12 | | 2016/08/12 | 2016/08/12 | | |
| | UNITS | DF-78W-100-1 | DF-78W-150-1 | QC Batch | DF-78W-300-1 | DF-78W-1000-1 | RDL | QC Batch |

| Industrial | | | | | | | | |
|----------------------------------|--------------|-------|-------|---------|-------|-------|-------|---------|
| Exposure | days | 29 | 29 | 8406033 | 29 | 29 | 1 | 8406033 |
| Dustfall Determination | | | | | | | | |
| Total Dustfall | mg | 25 | 20 | 8406023 | 13 | 19 | 1 | 8407619 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.312 | 0.258 | 8406029 | 0.160 | 0.236 | 0.001 | 8407632 |
| Total Fixed Dustfall | mg | 22 | 17 | 8406023 | 10 | 8 | 1 | 8407619 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.281 | 0.220 | 8406029 | 0.122 | 0.106 | 0.001 | 8407632 |
| RDL = Reportable Detection Limit | | | | | | | | |

Maxxam Job #: B681159
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PN7989 | PN7990 | PN7991 | PN7992 | PN7993 | | |
|----------------------------------|--------------|-------------|----------------|-------------|--------------|--------------|-------|----------|
| Sampling Date | | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | 2016/08/12 | | |
| | UNITS | DF-78W-25-2 | DF-78W-25-2DUP | DF-78W-50-2 | DF-78W-100-2 | DF-78W-150-2 | RDL | QC Batch |
| Industrial | | | | | | | | |
| Exposure | days | 29 | 29 | 29 | 29 | 29 | 1 | 8406033 |
| Dustfall Determination | | | | | | | | |
| Total Dustfall | mg | 120 | 130 | 62 | 29 | 20 | 1 | 8407619 |
| Total Dustfall (30 day) | mg/cm2/30day | 1.463 | 1.672 | 0.790 | 0.365 | 0.258 | 0.001 | 8407632 |
| Total Fixed Dustfall | mg | 110 | 130 | 59 | 27 | 17 | 1 | 8407619 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 1.392 | 1.604 | 0.752 | 0.342 | 0.220 | 0.001 | 8407632 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PN7994 | PN7995 | | PN7996 | | PN7997 | | |
|----------------------------------|--------------|--------------|---------------|-------|-------------|-------|-------------|-------|----------|
| Sampling Date | | 2016/08/12 | 2016/08/12 | | 2016/08/11 | | 2016/08/11 | | |
| | UNITS | DF-78W-300-2 | DF-78W-1000-2 | RDL | DF-18E-25-1 | RDL | DF-18E-50-1 | RDL | QC Batch |
| Industrial | | | | | | | | | |
| Exposure | days | 29 | 29 | 1 | 30 | 1 | 30 | 1 | 8406033 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 19 | 28 | 1 | 85 | 2 | 32 | 1 | 8407619 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.239 | 0.357 | 0.001 | 1.041 | 0.002 | 0.389 | 0.001 | 8407632 |
| Total Fixed Dustfall | mg | 17 | 6 | 1 | 81 | 2 | 30 | 1 | 8407619 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.213 | 0.076 | 0.001 | 0.992 | 0.002 | 0.367 | 0.001 | 8407632 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PN7998 | PN7999 | PN8000 | PN8001 | PN8002 | | |
|----------------------------------|--------------|--------------|-----------------|--------------|--------------|-------------|-------|----------|
| Sampling Date | | 2016/08/11 | 2016/08/11 | 2016/08/11 | 2016/08/11 | 2016/08/11 | | |
| | UNITS | DF-18E-100-1 | DF-18E-100-1DUP | DF-18E-150-1 | DF-18E-300-1 | DF-18W-25-1 | RDL | QC Batch |
| Industrial | | | | | | | | |
| Exposure | days | 30 | 30 | 30 | 30 | 30 | 1 | 8406033 |
| Dustfall Determination | | | | | | | | |
| Total Dustfall | mg | 29 | 27 | 19 | 17 | 74 | 1 | 8407619 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.353 | 0.331 | 0.235 | 0.206 | 0.911 | 0.001 | 8407632 |
| Total Fixed Dustfall | mg | 26 | 25 | 17 | 13 | 67 | 1 | 8407619 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.316 | 0.301 | 0.213 | 0.162 | 0.823 | 0.001 | 8407632 |
| RDL = Reportable Detection Limit | | | | | | | | |

Maxxam Job #: B681159
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PN8003 | PN8004 | PN8005 | PN8006 | PN8007 | | |
|---------------|-------|-------------|-----------------|--------------|--------------|---------------|-----|----------|
| Sampling Date | | 2016/08/11 | 2016/08/11 | 2016/08/11 | 2016/08/11 | 2016/08/11 | | |
| | UNITS | DF-18W-50-1 | DF-18W-50-1 DUP | DF-18W-100-1 | DF-18W-300-1 | DF-18W-1000-1 | RDL | QC Batch |

| Industrial | | | | | | | | |
|----------------------------------|--------------|-------|-------|-------|-------|-------|-------|---------|
| Exposure | days | 30 | 30 | 30 | 30 | 30 | 1 | 8406036 |
| Dustfall Determination | | | | | | | | |
| Total Dustfall | mg | 48 | 52 | 22 | 16 | 19 | 1 | 8412778 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.588 | 0.634 | 0.274 | 0.191 | 0.228 | 0.001 | 8412783 |
| Total Fixed Dustfall | mg | 46 | 49 | 20 | 13 | 16 | 1 | 8412778 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.558 | 0.600 | 0.249 | 0.162 | 0.191 | 0.001 | 8412783 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PN8008 | PN8009 | PN8010 | PN8011 | PN8012 | | |
|----------------------------------|--------------|-------------|-------------|--------------|--------------|------------------|-------|----------|
| Sampling Date | | 2016/08/11 | 2016/08/11 | 2016/08/11 | 2016/08/11 | 2016/08/11 | | |
| | UNITS | DF-18W-25-2 | DF-18W-50-2 | DF-18W-100-2 | DF-18W-150-2 | DF-18W-150-2 DUP | RDL | QC Batch |
| Industrial | | | | | | | | |
| Exposure | days | 30 | 30 | 30 | 30 | 30 | 1 | 8406036 |
| Dustfall Determination | | | | | | | | |
| Total Dustfall | mg | 100 | 46 | 24 | 17 | 18 | 1 | 8412778 |
| Total Dustfall (30 day) | mg/cm2/30day | 1.242 | 0.566 | 0.294 | 0.213 | 0.220 | 0.001 | 8412783 |
| Total Fixed Dustfall | mg | 97 | 43 | 20 | 14 | 13 | 1 | 8412778 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 1.183 | 0.522 | 0.242 | 0.176 | 0.162 | 0.001 | 8412783 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PN8013 | PN8014 | | PO4217 | PO4218 | PO4219 | | |
|----------------------------------|--------------|--------------|---------------|----------|-------------|-------------|--------------|-------|----------|
| Sampling Date | | 2016/08/11 | 2016/08/11 | | 2016/08/11 | 2016/08/11 | 2016/08/11 | | |
| | UNITS | DF-18W-300-2 | DF-18W-1000-2 | QC Batch | DF-18E-25-2 | DF-18E-50-2 | DF-18E-100-2 | RDL | QC Batch |
| Industrial | | | | | | | | | |
| Exposure | days | 30 | 30 | 8406036 | 30 | 30 | 30 | 1 | 8407569 |
| Dustfall Determination | | | | | | | | | |
| Total Dustfall | mg | 18 | 10 | 8412778 | 54 | 38 | 20 | 1 | 8412778 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.214 | 0.125 | 8412783 | 0.660 | 0.463 | 0.250 | 0.001 | 8412783 |
| Total Fixed Dustfall | mg | 13 | 6 | 8412778 | 49 | 34 | 16 | 1 | 8412778 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.163 | 0.073 | 8412783 | 0.600 | 0.411 | 0.198 | 0.001 | 8412783 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B681159
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PO4220 | PO4221 | | |
|----------------------------------|--------------|--------------|--------------|-------|----------|
| Sampling Date | | 2016/08/11 | 2016/08/11 | | |
| | UNITS | DF-18E-150-2 | DF-18E-300-2 | RDL | QC Batch |
| Industrial | | | | | |
| Exposure | days | 30 | 30 | 1 | 8407569 |
| Dustfall Determination | | | | | |
| Total Dustfall | mg | 17 | 12 | 1 | 8412778 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.206 | 0.147 | 0.001 | 8412783 |
| Total Fixed Dustfall | mg | 13 | 8 | 1 | 8412778 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.163 | 0.103 | 0.001 | 8412783 |
| RDL = Reportable Detection Limit | | | | | |

Maxxam Job #: B681159
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B681159
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|----------------|------|--------------|----------------------|------------------|-------|----------|-------|-----------|
| 8406023 | OZ | Method Blank | Total Dustfall | 2016/09/22 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/09/22 | <1 | | mg | |
| 8407619 | OZ | Method Blank | Total Dustfall | 2016/09/23 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/09/23 | <1 | | mg | |
| 8412778 | OZ | Method Blank | Total Dustfall | 2016/09/28 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/09/28 | <1 | | mg | |


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B681159
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 20016/08/12 - 2016/09/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/09/28
Report #: R2270623
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B682154

Received: 2016/09/21, 14:59

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/09/27 | 2016/09/28 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/09/27 | 2016/09/27 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager

Email: LManchak@maxxam.ca

Phone# (780)468-3536

=====

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Maxxam Job #: B682154
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PO3157 | PO3158 | | PO3159 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/08/06 11:30 | 2016/08/06 11:06 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 1.0 | 2.6 | 0.1 | | 8412207 |
| NO2 | ppm | | | | 0.03 | 8412215 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B682154
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B682154
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---------|------|--------------|----------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8412207 | SS6 | Spiked Blank | Calculated NO2 | 2016/09/27 | | 97 | % | 90 - 110 |
| 8412207 | SS6 | Method Blank | Calculated NO2 | 2016/09/27 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B682154
Report Date: 2016/09/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

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Your P.O. #: 495522
Your Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/09/29
Report #: R2271224
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B682149

Received: 2016/09/21, 14:55

Sample Matrix: Air
Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|---|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/09/28 | 2016/09/28 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 4 | 2016/09/28 | 2016/09/28 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/09/28 | 2016/09/28 | PTC SOP-00146 PTC SOP-00154 PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B682149
Report Date: 2016/09/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PO3131 | PO3132 | PO3133 | PO3134 | | |
|----------------------------------|--------------|---------------------|---------------------|---------------------|---------------------|-------|----------|
| Sampling Date | | 2016/08/06 11:30 | 2016/08/06 11:05 | 2016/08/06 13:21 | 2016/08/06 13:57 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 34 | 34 | 34 | 34 | 1 | 8414009 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 9 | 11 | 7 | 13 | 1 | 8414006 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.097 | 0.117 | 0.078 | 0.136 | 0.001 | 8414007 |
| Total Fixed Dustfall | mg | 8 | 9 | 6 | 11 | 1 | 8414006 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.091 | 0.097 | 0.065 | 0.123 | 0.001 | 8414007 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B682149
Report Date: 2016/09/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B682149
Report Date: 2016/09/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT


| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|---|------|--------------|----------------------|------------------|-------|----------|-------|-----------|
| 8414006 | OZ | Method Blank | Total Dustfall | 2016/09/28 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/09/28 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B682149
Report Date: 2016/09/29

Agnico Eagle Mines Ltd.
Client Project #: 2016/08/06 - 2016/09/09
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
Your Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/10/25
Report #: R2288571
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B691730
Received: 2016/10/18, 12:31

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/10/24 | 2016/10/25 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/10/24 | 2016/10/24 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
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Maxxam Job #: B691730
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PU2460 | PU2461 | | PU2462 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/09/09 16:30 | 2016/09/09 17:00 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 0.8 | 0.8 | 0.1 | | 8445011 |
| NO2 | ppm | | | | 0.03 | 8445013 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B691730
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B691730
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---------|------|--------------|----------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8445011 | SS6 | Spiked Blank | Calculated NO2 | 2016/10/24 | | 96 | % | 90 - 110 |
| 8445011 | SS6 | Method Blank | Calculated NO2 | 2016/10/24 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B691730
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

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Levi Manchak, Project Manager

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Your P.O. #: 495522
Your Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/10/25
Report #: R2288731
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B691733

Received: 2016/10/18, 12:34

Sample Matrix: Air
Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|-------------------|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/10/25 | 2016/10/25 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 4 | 2016/10/25 | 2016/10/25 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/10/25 | 2016/10/25 | PTC SOP-00146 | |
| | | | | PTC SOP-00154 | |
| | | | | PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

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Maxxam Job #: B691733
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | PU2480 | PU2481 | PU2482 | PU2483 | | |
|----------------------------------|--------------|------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/09/09 | 2016/09/09 | 2016/09/09 | 2016/09/09 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 29 | 29 | 29 | 29 | 1 | 8446439 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 7 | 4 | 6 | 4 | 2 | 8446436 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.082 | 0.053 | 0.071 | 0.046 | 0.002 | 8446437 |
| Total Fixed Dustfall | mg | 5 | 4 | 4 | 4 | 2 | 8446436 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.066 | 0.053 | 0.053 | 0.046 | 0.002 | 8446437 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B691733
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B691733
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

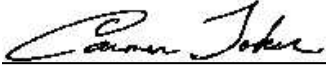
| QA/QC Batch | Init | QC Type | Parameter | Date Analyzed | Value | Recovery | UNITS | QC Limits |
|---|------|--------------|----------------------|------------------|-------|----------|-------|-----------|
| 8446436 | IK | Method Blank | Total Dustfall | 2016/10/25 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/10/25 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B691733
Report Date: 2016/10/25

Agnico Eagle Mines Ltd.
Client Project #: 2016/09/09 - 2016/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Carmen Toker, CT, Manager Air Laboratory Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/10/26
Report #: R2289375
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B691709
Received: 2016/10/18, 12:18

Sample Matrix: Filter
Samples Received: 32

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 32 | N/A | 2016/10/26 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B691709
Report Date: 2016/10/26

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | PU2305 | PU2306 | PU2307 | PU2308 | PU2309 | | |
|----------------------------------|-----------|--------------|---------------|---------------|---------------|-------------|-----|----------|
| Sampling Date | | 2016/09/15 | 2016/09/21 | 2016/09/27 | 2016/10/03 | 2016/10/09 | | |
| | UNITS | PM2.5 RP1106 | PM2.5 RP83735 | PM2.5 RP10066 | PM2.5 RP28688 | PM2.5 RP882 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 12 | 5 | 6 | 13 | <3 | 3 | 8447484 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PU2310 | PU2311 | PU2312 | PU2313 | PU2314 | PU2317 | | |
|----------------------------------|-----------|--------------|--------------|--------------|---------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/09/09 | 2016/09/15 | 2016/09/21 | 2016/09/27 | 2016/10/03 | 2016/09/15 | | |
| | UNITS | PM2.5 RP1093 | PM2.5 RP1112 | PM2.5 RP1582 | PM2.5 RP10067 | PM2.5 RP852 | PM10 RP1115 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | |
| Particulate Matter | ug/filter | 26 | 30 | 15 | 57 | 31 | 49 | 3 | 8447484 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | PU2318 | PU2319 | PU2320 | PU2321 | PU2322 | | |
|----------------------------------|-----------|--------------|--------------|--------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/09/21 | 2016/09/27 | 2016/10/03 | 2016/10/09 | 2016/09/09 | | |
| | UNITS | PM10 RP22019 | PM10 RP86125 | PM10 RP22021 | PM10 RP10072 | PM10 RP10064 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 277 | 118 | 353 | 51 | 47 | 3 | 8447484 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PU2323 | PU2324 | PU2325 | PU2326 | PU2329 | | |
|----------------------------------|-----------|--------------|--------------|------------|--------------|---------------------|-----|----------|
| Sampling Date | | 2016/09/15 | 2016/09/21 | 2016/09/27 | 2016/10/03 | | | |
| | UNITS | PM10 RP27278 | PM10 RP27773 | PM10 RP878 | PM10 RP84085 | TRAVEL BLANK RP2877 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 59 | 22 | 81 | 52 | <3 | 3 | 8447484 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | PU2330 | PU2331 | PU2332 | PU2333 | PU2334 | PU2335 | PU2336 | | |
|----------------------------------|-----------|--------|-------------|------------|-------------|------------|-------------|------------|-----|----------|
| Sampling Date | | | 2016/09/15 | 2016/09/21 | 2016/09/27 | 2016/10/03 | 2016/10/09 | 2016/09/09 | | |
| | UNITS | BLANK | TSP RP28689 | TSP RP2883 | TSP RP22027 | TSP RP908 | TSP RP15512 | TSP RP1105 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | | |
| Particulate Matter | ug/filter | 3 | 165 | 50 | 18 | 246 | 101 | 87 | 3 | 8447484 |
| RDL = Reportable Detection Limit | | | | | | | | | | |

Maxxam Job #: B691709
Report Date: 2016/10/26

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | PU2337 | PU2338 | | PU2339 | PU2340 | | |
|----------------------------------|-----------|------------|-------------|----------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/09/15 | 2016/09/21 | | 2016/09/27 | 2016/10/03 | | |
| | UNITS | TSP RP1094 | TSP RP82070 | QC Batch | TSP RP15480 | TSP RP23774 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | |
| Particulate Matter | ug/filter | 57 | 38 | 8447484 | 482 | 185 | 3 | 8447485 |
| RDL = Reportable Detection Limit | | | | | | | | |

Maxxam Job #: B691709
Report Date: 2016/10/26

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

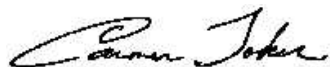
Results relate only to the items tested.

Maxxam Job #: B691709
Report Date: 2016/10/26

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Carmen Toker, CT, Manager Air Laboratory Services

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/11/30
Report #: R2309297
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6A6402
Received: 2016/11/28, 09:23

Sample Matrix: Air
Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|-------------------|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/11/30 | 2016/11/30 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 4 | 2016/11/30 | 2016/11/30 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/11/30 | 2016/11/30 | PTC SOP-00146 | |
| | | | | PTC SOP-00154 | |
| | | | | PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
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Maxxam Job #: B6A6402
Report Date: 2016/11/30

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | QD2898 | QD2899 | QD2900 | QD2901 | | |
|----------------------------------|--------------|------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/10/08 | 2016/10/08 | 2016/10/08 | 2016/10/08 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 33 | 33 | 33 | 33 | 1 | 8489627 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | 8 | 8 | 8 | 8 | 2 | 8489624 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.087 | 0.087 | 0.094 | 0.094 | 0.002 | 8489625 |
| Total Fixed Dustfall | mg | 7 | 7 | 7 | 7 | 2 | 8489624 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | 0.072 | 0.072 | 0.080 | 0.080 | 0.002 | 8489625 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B6A6402
Report Date: 2016/11/30

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B6A6402
Report Date: 2016/11/30

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT


| QA/QC | | | | Date | | | | |
|---|------|--------------|----------------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8489624 | IK2 | Method Blank | Total Dustfall | 2016/11/30 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/11/30 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B6A6402
Report Date: 2016/11/30

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
Your Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/12/01
Report #: R2309693
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6A6391

Received: 2016/11/28, 09:14

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/11/29 | 2016/11/29 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/11/29 | 2016/11/29 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager

Email: LManchak@maxxam.ca

Phone# (780)468-3536

=====

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Maxxam Job #: B6A6391
Report Date: 2016/12/01

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | QD2862 | QD2863 | | QD2864 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/10/08 13:25 | 2016/10/08 14:10 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 1.0 | 1.6 | 0.1 | | 8487442 |
| NO2 | ppm | | | | 0.02 | 8487449 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B6A6391
Report Date: 2016/12/01

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B6A6391
Report Date: 2016/12/01

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---------|------|--------------|----------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8487442 | IK2 | Spiked Blank | Calculated NO2 | 2016/11/29 | | 98 | % | 90 - 110 |
| 8487442 | IK2 | Method Blank | Calculated NO2 | 2016/11/29 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B6A6391
Report Date: 2016/12/01

Agnico Eagle Mines Ltd.
Client Project #: 2016/10/08 - 2016/11/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
Your Project #: PM2.5/10/TSP
Site#: OCT/NOV 2016
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/12/01
Report #: R2309800
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6A6406
Received: 2016/11/28, 09:27

Sample Matrix: Filter
Samples Received: 26

| Analyses | Date | | Laboratory Method | Analytical Method |
|-------------------------------|----------|-----------|--------------------------|---------------------|
| | Quantity | Extracted | | |
| Mass Determination(ug/filter) | 26 | N/A | 2016/12/01 PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B6A6406
Report Date: 2016/12/01

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | QD2916 | QD2917 | QD2918 | QD2919 | QD2920 | | |
|---------------|-------|--------------|---------------|---------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/10/15 | 2016/10/21 | 2016/10/27 | 2016/11/02 | 2016/10/09 | | |
| | UNITS | PM2.5 RP9948 | PM2.5 RP89966 | PM2.5 RP14085 | PM2.5 RP2875 | PM2.5 RP4233 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|---|----|----|---|---------|
| Particulate Matter | ug/filter | 10 | 13 | 5 | 11 | 30 | 3 | 8490335 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | QD2921 | QD2922 | QD2923 | QD2926 | QD2927 | | |
|---------------|-------|---------------|---------------|---------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/10/15 | 2016/10/21 | 2016/10/27 | 2016/10/15 | 2016/10/21 | | |
| | UNITS | PM2.5 RP18848 | PM2.5 RP17774 | PM2.5 RP15546 | PM10 RP15511 | PM10 RP24907 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|-----|-----|---|---------|
| Particulate Matter | ug/filter | 32 | 28 | 12 | 275 | 264 | 3 | 8490335 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | QD2928 | QD2929 | QD2930 | QD2931 | QD2932 | QD2933 | | |
|---------------|-------|-------------|--------------|--------------|--------------|--------------|------------|-----|----------|
| Sampling Date | | 2016/10/27 | 2016/11/02 | 2016/10/09 | 2016/10/15 | 2016/10/21 | 2016/10/27 | | |
| | UNITS | PM10 RP2884 | PM10 RP14350 | PM10 RP15515 | PM10 RP96182 | PM10 RP22665 | PM10 RP921 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 64 | 27 | 75 | 84 | 73 | 20 | 3 | 8490335 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | QD2936 | QD2937 | QD2938 | QD2939 | QD2940 | QD2941 | | |
|---------------|-------|---------------------|--------|-------------|-------------|-------------|-------------|-----|----------|
| Sampling Date | | | | 2016/10/15 | 2016/10/21 | 2016/10/27 | 2016/11/02 | | |
| | UNITS | TRAVEL BLANK RP1145 | BLANK | TSP RP84094 | TSP RP27516 | TSP RP82060 | TSP RP20571 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|---|----|-----|-----|-----|----|---|---------|
| Particulate Matter | ug/filter | 6 | <3 | 251 | 380 | 164 | 39 | 3 | 8490335 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | QD2942 | QD2943 | QD2944 | QD2945 | | |
|---------------|-------|-------------|-------------|------------|-------------|-----|----------|
| Sampling Date | | 2016/10/09 | 2016/10/15 | 2016/10/21 | 2016/10/27 | | |
| | UNITS | TSP RP15553 | TSP RP10308 | TSP RP2876 | TSP RP85911 | RDL | QC Batch |

| PM2.5/10 | | | | | | | |
|----------------------------------|-----------|-----|-----|-----|-----|---|---------|
| Particulate Matter | ug/filter | 767 | 979 | 455 | 400 | 3 | 8490335 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B6A6406
Report Date: 2016/12/01

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B6A6406
Report Date: 2016/12/01

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 495522
Your Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/12/23
Report #: R2321729
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6B3773
Received: 2016/12/22, 08:37

Sample Matrix: Air
Samples Received: 3

| Analyses | Quantity | Date | | Laboratory Method | Analytical Method |
|--------------------------|----------|------------|------------|-------------------|---------------------|
| | | Extracted | Analyzed | | |
| NO2 Passive Analysis (1) | 2 | 2016/12/23 | 2016/12/23 | PTC SOP-00148 | Passive NO2 in ATM |
| Raw NO2 Passive Analysis | 1 | 2016/12/23 | 2016/12/23 | PTC SOP-00148 | Tang Passive NO2 in |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) The detection limit is based on a 30 day sampling period.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====

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Maxxam Job #: B6B3773
Report Date: 2016/12/23

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | QH6568 | QH6569 | | QH6570 | |
|----------------------------------|-------|---------------------|---------------------|-----|------------|----------|
| Sampling Date | | 2016/11/10 15:40 | 2016/11/10 11:10 | | | |
| | UNITS | NO2: 1 | NO2: 2 | RDL | NO2: BLANK | QC Batch |
| Passive Monitoring | | | | | | |
| Calculated NO2 | ppb | 1.4 | 2.0 | 0.1 | | 8511941 |
| NO2 | ppm | | | | 0.06 | 8511942 |
| RDL = Reportable Detection Limit | | | | | | |

Maxxam Job #: B6B3773
Report Date: 2016/12/23

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B6B3773
Report Date: 2016/12/23

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT

| QA/QC | | | | Date | | | | |
|---------|------|--------------|----------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8511941 | IK2 | Spiked Blank | Calculated NO2 | 2016/12/23 | | 100 | % | 90 - 110 |
| 8511941 | IK2 | Method Blank | Calculated NO2 | 2016/12/23 | <0.1 | | ppb | |

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.


Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B6B3773
Report Date: 2016/12/23

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Linda Lin, Supervisor, Centre for Passive Sampling Technology

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Your P.O. #: 495522
Your Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/12/28
Report #: R2323757
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6B3770
Received: 2016/12/22, 08:35

Sample Matrix: Air
Samples Received: 4

| Analyses | Quantity | Date | Date | Laboratory Method | Analytical Method |
|--|----------|------------|------------|-------------------|-------------------|
| | | Extracted | Analyzed | | |
| Determination of Dustfall-mg/cm2/30 days | 4 | 2016/12/28 | 2016/12/28 | | PTC SOP-00180 |
| Total & Fixed Dustfall | 4 | 2016/12/28 | 2016/12/28 | PTC SOP-00180 | AMD 32020 |
| Exposure (Number of days) | 4 | 2016/12/28 | 2016/12/28 | PTC SOP-00146 | |
| | | | | PTC SOP-00154 | |
| | | | | PTC SOP-00180 | |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

=====
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B6B3770
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF AIR

| Maxxam ID | | QH6558 | QH6559 | QH6560 | QH6561 | | |
|----------------------------------|--------------|------------|------------|------------|------------|-------|----------|
| Sampling Date | | 2016/11/10 | 2016/11/10 | 2016/11/10 | 2016/11/10 | | |
| | UNITS | 1 | 2 | 3 | 4 | RDL | QC Batch |
| Industrial | | | | | | | |
| Exposure | days | 30 | 30 | 30 | 30 | 1 | 8514477 |
| Dustfall Determination | | | | | | | |
| Total Dustfall | mg | <1 | <1 | <1 | <1 | 1 | 8514474 |
| Total Dustfall (30 day) | mg/cm2/30day | 0.010 | 0.010 | 0.009 | 0.009 | 0.001 | 8514475 |
| Total Fixed Dustfall | mg | <1 | <1 | <1 | <1 | 1 | 8514474 |
| Total Fixed Dustfall (30 day) | mg/cm2/30day | <0.001 | <0.001 | <0.001 | <0.001 | 0.001 | 8514475 |
| RDL = Reportable Detection Limit | | | | | | | |

Maxxam Job #: B6B3770
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B6B3770
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

QUALITY ASSURANCE REPORT


| QA/QC | | | | Date | | | | |
|---|------|--------------|----------------------|------------|-------|----------|-------|-----------|
| Batch | Init | QC Type | Parameter | Analyzed | Value | Recovery | UNITS | QC Limits |
| 8514474 | IK2 | Method Blank | Total Dustfall | 2016/12/28 | <1 | | mg | |
| | | | Total Fixed Dustfall | 2016/12/28 | <1 | | mg | |
| Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination. | | | | | | | | |

Maxxam Job #: B6B3770
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: 2016/11/10 - 2016/12/10
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Levi Manchak, Project Manager

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Your P.O. #: 495522
Your Project #: PM2.5/10/TSP
Site#: NOV/DEC 2016
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA JOY 1C0

Report Date: 2016/12/28
Report #: R2323745
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B6B3758
Received: 2016/12/22, 08:15

Sample Matrix: Filter
Samples Received: 33

| Analyses | Quantity | Date Extracted | Date Analyzed | Laboratory Method | Analytical Method |
|-------------------------------|-----------------|---------------------------|--------------------------|--------------------------|--------------------------|
| Mass Determination(ug/filter) | 33 | N/A | 2016/12/28 | PTC SOP-00151 | EPA 2.12 Monitoring |

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Levi Manchak, Project Manager
Email: LManchak@maxxam.ca
Phone# (780)468-3536

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Maxxam Job #: B6B3758
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | QH6444 | QH6445 | QH6446 | QH6447 | QH6448 | | |
|---------------|-------|---------------|----------------|---------------|--------------|---------------|-----|----------|
| Sampling Date | | 2016/11/08 | 2016/11/14 | 2016/11/20 | 2016/11/26 | 2016/12/02 | | |
| | UNITS | PM2.5 RP22668 | PM2.5 RP015527 | PM2.5 RP84087 | PM2.5 RP1104 | PM2.5 RP89946 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|---|---|----|----|----|---|---------|
| Particulate Matter | ug/filter | 6 | 9 | 23 | 16 | 11 | 3 | 8514460 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | QH6449 | QH6450 | QH6451 | QH6452 | QH6453 | | |
|---------------|-------|---------------|---------------|-------------|---------------|---------------|-----|----------|
| Sampling Date | | 2016/11/02 | 2016/11/08 | 2016/11/14 | 2016/11/20 | 2016/11/26 | | |
| | UNITS | PM2.5 RP89965 | PM2.5 RP90554 | PM2.5 RP889 | PM2.5 RP82055 | PM2.5 RP29748 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|---|---|---|----|----|---|---------|
| Particulate Matter | ug/filter | 9 | 9 | 6 | 31 | 33 | 3 | 8514460 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | QH6454 | QH6455 | QH6456 | QH6457 | QH6458 | | |
|---------------|-------|---------------|--------------|--------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/12/02 | 2016/11/08 | 2016/11/14 | 2016/11/20 | 2016/11/26 | | |
| | UNITS | PM2.5 RP10063 | PM10 RP15551 | PM10 RP90581 | PM10 RP98000 | PM10 RP10078 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|---|---------|
| Particulate Matter | ug/filter | 34 | 50 | 53 | 32 | 80 | 3 | 8514460 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | QH6459 | QH6461 | QH6462 | QH6463 | QH6464 | | |
|---------------|-------|--------------|--------------|-------------|--------------|--------------|-----|----------|
| Sampling Date | | 2016/12/02 | 2016/11/02 | 2016/11/08 | 2016/11/14 | 2016/11/20 | | |
| | UNITS | PM10 RP10069 | PM10 RP15145 | PM10 RP1098 | PM10 RP12409 | PM10 RP16065 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | |
|----------------------------------|-----------|----|----|---|----|----|---|---------|
| Particulate Matter | ug/filter | 12 | 10 | 7 | 10 | 28 | 3 | 8514460 |
| RDL = Reportable Detection Limit | | | | | | | | |

| Maxxam ID | | QH6465 | QH6466 | QH6467 | QH6468 | QH6469 | QH6481 | | |
|---------------|-------|--------------|--------------|-------------|-------------|-------------|-------------|-----|----------|
| Sampling Date | | 2016/11/26 | 2016/12/02 | 2016/11/08 | 2016/11/14 | 2016/11/20 | 2016/11/02 | | |
| | UNITS | PM10 RP15485 | PM10 RP82054 | TSP RP17880 | TSP RP15486 | TSP RP91293 | TSP RP90582 | RDL | QC Batch |

| PM2.5/10 | | | | | | | | | |
|----------------------------------|-----------|----|----|----|----|----|-----|---|---------|
| Particulate Matter | ug/filter | 30 | 31 | 55 | 29 | 67 | 578 | 3 | 8514460 |
| RDL = Reportable Detection Limit | | | | | | | | | |

Maxxam Job #: B6B3758
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

RESULTS OF CHEMICAL ANALYSES OF FILTER

| Maxxam ID | | QH6482 | QH6483 | QH6484 | QH6485 | | QH6486 | | |
|----------------------------------|-----------|------------|------------|-------------|-------------|----------|-------------|-----|----------|
| Sampling Date | | 2016/11/08 | 2016/11/14 | 2016/11/20 | 2016/11/26 | | 2016/12/02 | | |
| | UNITS | TSP RP868 | TSP RP877 | TSP RP22903 | TSP RP27477 | QC Batch | TSP RP28673 | RDL | QC Batch |
| PM2.5/10 | | | | | | | | | |
| Particulate Matter | ug/filter | 205 | 97 | 382 | 20 | 8514460 | 34 | 3 | 8514461 |
| RDL = Reportable Detection Limit | | | | | | | | | |

| Maxxam ID | | QH6487 | QH6488 | | |
|----------------------------------|-----------|------------------------|-----------|-----|----------|
| Sampling Date | | | | | |
| | UNITS | TRAVEL BLANK RP1094 | LAB BLANK | RDL | QC Batch |
| PM2.5/10 | | | | | |
| Particulate Matter | ug/filter | 10 | <3 | 3 | 8514461 |
| RDL = Reportable Detection Limit | | | | | |

Maxxam Job #: B6B3758
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

GENERAL COMMENTS

Sample QH6444 [PM2.5 RP22668] : Incorrect Sample ID/RP# noted on COC. Sampling date unconfirmed.

Sample QH6445 [PM2.5 RP015527] : Incorrect Sample ID/RP# noted on COC. Sampling date unconfirmed.

Sample QH6446 [PM2.5 RP84087] : Incorrect Sample ID/RP# noted on COC. Sampling date unconfirmed.


Results relate only to the items tested.

Maxxam Job #: B6B3758
Report Date: 2016/12/28

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 495522

VALIDATION SIGNATURE PAGE

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Levi Manchak, Project Manager

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Appendix C

Incinerator Stack Sampling Tests Report



**PROFESSIONAL SERVICE
STACK SAMPLING TESTS
AIR EMISSIONS QUANTIFICATION
DOMESTIC WASTE INCINERATOR**



AGNICO EAGLE

AGNICO EAGLE MINES LTD, Baker Lake (Nunavut)

**MR. ROBIN ALLARD
ACTING COORDINATOR**

O/REF: #16-4411

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AGNICO EAGLE

Revision history

| Version name | Date | Detail | Review by |
|--------------|------|--------|-----------|
| | --- | --- | --- |

Version finale

PREPARED BY:

Simon Demers, Chargé de projets.

VERIFIED BY:

Christian Gagnon, Operations Director.

Québec, the 2nd of November 2016

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GLOSSARY

PM : Particulate matter

SVOC (PCDD/F) : Dioxins and furans

ME : Metals

O₂ : Oxygen

CO₂ : Carbon dioxide

CO : Carbone monoxide

NO_x : Nitrogen oxide

ACFM : Actual cubic feet per minute

ECCC : Environment and Climate Change Canada

USEPA : United Stated Environmental Protection Agency

QA/QC : Quality Assurance / Quality Control

ΔP : Differential pressure read at the stack

ΔH : Differential pressure read at the control unit

DL : Detection Limit

SUMMARY

Consulair was mandated by Agnico Eagle Mines, Meadowbank Division, to sample the atmospheric emissions at the outlet of an incinerator for its plant located in Baker Lake, Nunavut.

The objectives of the characterization of atmospheric emissions were:

- To evaluate the physical characteristics of the gas flow in the stack;
- To evaluate the concentration and the emission rate of the particulate matter (P);
- To demonstrate the performance of the incinerator to meet the standards for mercury (Hg) and dioxins and furans (PCDD/F);
- To ensure that Consulair's QA/QC is respected throughout the stack sampling program;

SUMMARY OF SAMPLING RESULTS

For this project, the applicable standards are shown below with the tests results. The applicable standard for dioxins and furans (PCDD/F) were met during tests # 1 and # 3 and the average test result met the standard. The test result #2 doesn't meet the standard but doesn't exceed 20% of the standard. The average meets the standard and there is no test over 20% of the standard. The applicable standard for mercury (Hg) was met during tests # 1, #2 and # 3. The standards come from the "Environmental Guideline for the Burning and Incineration of Solid Waste" emitted by the Department of Environment of the Government of Nunavut base on the Canadian Council of Ministers of the Environment (CCME) Canada - Wide Standards for Dioxins and Furans and Mercury Emissions.

The government of Nunavut presented a guideline document in October 2010, which was revised in January 2012, for the burning and incineration of solid waste. The document presented two criterias for air emission which are applicable in the current project. A standard for Dioxins and Furans is stated at 80 pg I-TEQ/cubic metre and another standard for mercury is stated at 20 µg/Rcubic metre. The R conditions are stated at 101.3 kPa and 25°C. Both standards are corrected to 11% O₂.

| SUMMARY OF RESULTS | | |
|-----------------------------|---|---|
| CONTAMINANTS | TEST RESULTS | STANDARDS |
| MERCURY (HG) | < 0.46 µg / Rm ³ @ 11 % v/v O ₂ | 20 µg / Rm ³ @ 11 % v/v O ₂ |
| DIOXINS AND FURANS (PCDD/F) | 0.033 ng / Rm ³ @ 11 % v/v O ₂ | 0.08 ng TEQ / Rm ³ @ 11 % v/v O ₂ |

R : Reference conditions 25 °C, 101.3 kPa and dry basis.

| PARTICULATE MATTER - HCL | |
|---|--------------|
| OUTLET OF INCINERATOR | |
| STACK GAS PROPERTIES | |
| TEMPÉRATURE (°C) | 525 |
| MOISTURE (% v/v) | 5.2 |
| VELOCITY (m/s) | 7.7 |
| VOLUMETRIC FLOW RATE (m ³ /h) | 20 310 |
| VOLUMETRIC FLOW RATE (Nm ³ /h) | 7 206 |
| GAS COMPOSITION | |
| CO ₂ (% v/v d) | 3.7 |
| O ₂ (% v/v d) | 15.4 |
| CO (ppmvd) | 4 |
| PARTICULATE MATTER | |
| PARTICULATE MATTER (mg/Nm ³) | 27.19 |
| PARTICULATE MATTER (mg/Nm³) at 11 % O₂ | 47.7 |
| PARTICULATE MATTER (kg/h) | 0.19 |
| PARTICULATE MATTER (g/s) | 0.05 |
| HCL | |
| HCl (mg/Nm ³) | 10.09 |
| HCl (mg/Nm³) at 11 % O₂ | 18.24 |
| HCl (ppm) | 6.77 |
| HCl (kg/h) | 0.07 |
| HCl (g/s) | 0.02 |
| N : Reference conditions 25 °C, 101.3 kPa and dry basis. | |

| METALS | |
|---|--------------|
| OUTLET OF INCINERATOR | |
| CONCENTRATIONS ($\mu\text{g}/\text{Nm}^3$) at 11 % O ₂ | |
| Aluminium (Al) | 60.37 |
| Antimony(Sb) | 21.1 |
| Silver (Ag) | 2.9 |
| Arsenic (As) | 2.3 |
| Baryum (Ba) | 1.6 |
| Béryllium (Be) | < 0.24 |
| Bismuth (Bi) | 1.0 |
| Boron (B) | 36.7 |
| Cadmium (Cd) | 1.5 |
| Calcium (Ca) | 13296.4 |
| Chromium (Cr) | 46.3 |
| Cobalt (Co) | 0.6 |
| Copper (Cu) | 40.6 |
| Tin (Sn) | 80.6 |
| Iron (Fe) | 191.1 |
| Lithium (Li) | 14.8 |
| Magnesium (Mg) | 108.1 |
| Manganese (Mn) | 3.9 |
| Mercury (Hg) | < 0.46 |
| Molybdenum (Mo) | 42.8 |
| Nickel (Ni) | 28.9 |
| Lead (Pb) | 39.8 |
| Potassium (K) | 6096.9 |
| Selenium (Se) | 1.4 |
| Silicium (Si) | 369.1 |
| Sodium (Na) | 2888.8 |
| Strontium (Sr) | 6.1 |
| Thallium (Tl) | < 0.44 |
| Titanium (Ti) | 28.6 |
| Vanadium (V) | 3.7 |
| Zinc (Zn) | 3385.2 |
| TOTAL METALS | 13906 |
| N : Reference conditions 25 °C, 101.3 kPa and dry basis.. | |

| SVOC | |
|---|--------------|
| OUTLET OF INCINERATOR | |
| MOISTURE (%) | 5.1 |
| TEMPÉRATURE (°C) | 522 |
| VOLUMETRIC FLOW RATE (Nm ³ /h) | 7274 |
| GAS COMPOSITION | |
| CO ₂ (% v/v d) | 3.4 |
| O ₂ (% v/v d) | 15.9 |
| CO (ppmvd) | 7 |
| PCDD/F | |
| PCDD/F (ng/Nm ³) à 11 % O ₂ | 0.033 |
| STANDARD (ng/Nm ³) at 11% O ₂ | 0.08 |
| PCDD/F (µg/h) | 0.14 |
| N : Reference conditions 25 °C, 101.3 kPa and dry basis. | |

| GAS | |
|---|----------------|
| OUTLET OF INCINERATOR | |
| CHARACTERISTICS OF GAS | |
| TEMPÉRATURE (°C) | 503 |
| MOISTURE (%) | 5.9 |
| VELOCITY (m/s) | 7.5 |
| VOLUMETRIC FLOW RATE (m ³ /h) | 19 816 |
| VOLUMETRIC FLOW RATE (Nm ³ /h) | 7 225 |
| CO ₂ (% v/v d) | 4.3 |
| O ₂ (% v/v d) | 15.2 |
| CO (ppmvd) | 3 |
| NITROGEN OXIDES (NO _x) as NO ₂ | |
| NO _x (ppmvd) - average | 26 |
| NO _x as equivalent NO ₂ (mg/Nm ³) | 49 |
| NO _x (kg/h) | 0.4 |
| CARBON MONOXIDE (CO) | |
| CO (ppmvd) - average | 3 |
| CO (mg/Nm ³) | 3 |
| CO (kg/h) | 0.02 |
| OXYGEN (O ₂) | |
| O ₂ (% v/v d) - average | 15.2 |
| O ₂ (mg/Nm ³) | 198 400 |
| O ₂ (kg/h) | 1433 |
| CARBON DIOXIDE (CO ₂) | |
| CO ₂ (% v/v d) - average | 4.3 |
| CO ₂ (mg/Nm ³) | 76 713 |
| CO ₂ (kg/h) | 554 |
| CO ₂ (g/s) | 154 |
| N : Reference conditions 25 °C, 101.3 kPa and dry basis. | |

The sampling was made in compliance with the rules of the requirements of the Report No. EPS 3/UP/2, including methods recommended by “Environment and Climate Change Canada” (ECCC) of the Government of Canada inside “Environment Canada, The National Incinerator Testing and Evaluation Program: Air Pollution Control Technology. Report No. EPS 3/UP/2, Ottawa, 1986.

1 INTRODUCTION

Consulair was mandated by Agnico Eagle Mines, plant Meadowbank (Nu), to demonstrate the performance of the incinerator to meet the standards for mercury (Hg) and dioxins and furans (PCDD/F).

1.1 **Sampling scope**

The objectives of the sampling program of atmospheric emission were:

- To evaluate the physical characteristics of the gas flow in the stack;
- To evaluate the concentration and the emission rate of the particulate matter (P);
- To demonstrate the performance of the incinerator to meet the standards for mercury (Hg) and dioxins and furans (PCDD/F);
- To ensure that Consulair's QA/QC is respected throughout the stack sampling program;

The study included sources and pollutants referred to the following table.

TABLE 1-1 – OVERALL TEST MATRIX

| SOURCE | POLLUTANTS | SAMPLING METHODS |
|-----------------------|-------------------------|------------------|
| Outlet of incinerator | Particulate matter (PM) | EPS 1/RM/8 EC |
| | Hydrogen chloride (HCl) | EPS 1/RM/1 EC |
| | Metals | USEPA 29 |
| | SVOC (PCDD/F) | EPS 1/RM/2 EC |

2 SAMPLING TEAM AND PARTICIPANT

The interveners of this testing program are listed in table 2-1 and 2-2. The analysis laboratory used is defined in table 2-3.

TABLE 2-1 – CLIENT CONTACT

| CLIENT | CONTACT | FONCTION |
|---|--|---------------------------|
| AGNICO EAGLE MINES P.O. Box 540, Baker Lake, Nunavut Canada X0X 0A0 | Robin Allard Environmental Coordinator Tel: 819-759-3555 ext.:6744 Robin.allard@agnicoeagle.com | Test program coordination |

TABLE 2-2 – SAMPLING TEAM

| STAFF | TITLE | FUNCTION |
|----------------------------|---------------------|---------------------------------------|
| Christian Gagnon | Operations Director | Report validation |
| Simon Demers | Project Manager | Report writing On-site team leader |
| Charles-Olivier Normandeau | Technician | PM sampling. |

TABLE 2-3 – ANALYSIS LABORATORY

| LABORATORY | ANALYSIS | FIELD OF ACCREDITATION DR-12-LLA |
|------------|-------------------------|-------------------------------------|
| Consulair | Particulate Matter | 400 |
| Consulair | Hydrogen chloride (HCl) | --- |
| Maxxam | Metals | 404 - 406 |
| Agat | PCDD/F | 510 |

3 SAMPLING

3.1 Process operation

A representative of the Agnico Eagle mines company had the responsibility to monitor the operating conditions to ensure the representativeness of the sampling. In order to perform the sampling program under representative conditions, a tight liaison was maintained with the operators during the testing

Process operating conditions of the incinerator were under Agnico-Eagle's responsibility. The operating conditions were maintained stable throughout each day of the test program

3.2 Source description

The number of measuring points in the stack was determined in accordance with the requirements of Environment Canada EPS 1/RM/8 sampling method entitled: "Reference methods for source testing: measurement of releases of particulate from stationary sources"

Stacks characteristics are described in the next table.

TABLE 3-1 – SAMPLED SITE CHARACTERISTICS

| SOURCE | DIMENSION(S) | DIAMETER NUMBER) | | NUMBER OF SAMPLING POINTS | |
|-----------------------|--------------|------------------|----------------|---|-------|
| | Stack (feet) | A _D | B _D | Number of port used and sampling points | Total |
| Outlet of incinerator | 38.0 | 5.0 | 2.0 | 2 x 18 | 36 |

3.3 Sampling methodology

Sampling methods used in this project are methods approved and recommended by known organisms such as United States Environmental Protection Agency (US EPA) and Environment Canada (EC).

The following table shows the sampling methods that were used during testing.

TABLE 3-2 – SAMPLING METHODS

| PARAMETERS | METHODS | SAMPLING DURATION (MIN.) |
|---------------------------------------|---|--------------------------|
| <i>Manual sampling methods</i> | | |
| Temperature | Thermometer or thermocouple | With isokinetic value |
| Gas flow | SPE 1/RM/8, method B – Environment Canada | With isokinetic value |
| O ₂ , CO ₂ , CO | SPE 1/RM/8, method C – Environment Canada | With isokinetic value |
| Moisture content | SPE 1/RM/8, method D – Environment Canada | With isokinetic value |
| Particulate matter (PM) | SPE 1/RM/8, method E – Environment Canada | 180 |
| HCl | SPE 1/RM/1 – Environment Canada | |
| Metals | USEPA, CFR 40, Part 60, Method 29 | |
| SVOC (PCDD/F) | SPE 1/RM/2 – Environment Canada | 180 |
| <i>Instrumental sampling method</i> | | |
| NO _x | USEPA, CFR 40, Part 60, Method 7E | 60 |

The distribution of parameters within the sampling train is presented in the following table.

TABLE 3-3 – DISTRIBUTION OF PARAMETERS FOR EACH OF SAMPLING SYSTEMS

| SAMPLING TRAIN | PARAMETERS |
|-----------------------------|-------------|
| Metals & Particulate matter | PM & Metals |
| HCl | HCl |
| SVOC | PCDD/F |

3.4 Temperature, moisture content and flowrate

Gas temperature, flowrate, velocity and moisture content will be measured at the sampling sites according to "Reference methods for source testing: measurement of releases of particulate from stationary sources". Methods B and D, Environment Canada, December 1993, EPS 1/RM/8

3.5 Isokinetic sampling

Isokinetic sampling collects particles in a moving stream which moves at the same velocity in the sampling nozzle as elsewhere in the stream. If the stream moves too slowly into the collector, it increases the number of large particles. If it is too fast, large particles are lost. In either case, the sample collected wouldn't be an accurate reflection of what the overall stream is.

The following table presents a test acceptance criteria according to the methods (sampling systems) used.

TABLE 3-4 – SAMPLING VALIDITY CRITERIA

| PARAMETERS | MÉTHOD | ACCEPTANCE CRITERIA |
|--------------------|----------------------|--|
| Particulate Matter | SPE 1/RM/8 | <ul style="list-style-type: none"> • Isokinetic rate comprised between 90 % and 110 % • Less than 10% of the sampled points out of the 90 % to 110 % range |
| Metals | Method 29 from USEPA | |
| SVOC | SPE 1/RM/2 | |

3.5.1 Particulate matter (pm) & metals

Particulate matter (PM) and metals (Al, Sb, Ag, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Sn, Fe, Li, Mg, Mn, Mo, Ni, Pb, K, Se, Na, Ti, V, Zn, Sr, Tl, Si (Silicium soluble), Hg) was sampled in accordance with the requirements of Environment Canada EPS 1/RM/8 sampling method entitled: "Reference methods for source testing: measurement of releases of particulate from stationary sources". This method was combined with method USEPA method 29 entitled "Metals emissions from stationary sources" in order to allow for metals sampling (including Hg). The sampling lasted 180 minutes and a minimal volume of at least 2.8 Rm³ was sampled during each run.

TABLE 3-5 – MAIN COMPONENTS OF THE METALS SAMPLING SYSTEM

| SAMPLING PROBE | SAMPLING TRAIN | CONTROL UNIT |
|--|--|---|
| <ul style="list-style-type: none"> • Glass nozzle. • Glass probe provided with a heater set at 120 °C. • S type Pitot tube for the gas velocity attached to the sample probe. • Thermocouple for temperature attached to the sample probe. | <ul style="list-style-type: none"> • A 0.3 µm porosity pre-weighted quartz filter mounted on an accurate holder and placed in a heated oven to avoid moisture condensation; • Seven impingers placed in series and containing: <ul style="list-style-type: none"> ○ # 1: empty; ○ # 2 and # 3: 100 mL HNO₃ (5%) / H₂O₂ (10%) solution; ○ # 4 : empty; ○ # 5 and # 6 : 100 mL KMnO₄ (4%) / H₂SO₄ (10%) solution; ○ # 7: silica gel; • Impingers placed in an ice bath to condense all the flue gas moisture. | <ul style="list-style-type: none"> • Sampling cord that connects the train to the sampling console. • Sampling console with oil manometer, a dry gas meter, an orifice, a temperature reader and temperature controllers. • Diaphragm vacuum pump. |

3.5.2 Semivolatile organic compounds (svoc) (pcdd/df)

Semi Volatile Organic Compounds (SVOC) are defined as organic compounds with boiling points greater than 100 °C. This class of compounds includes PCDD (PolyChlorinated Dibenzo p Dioxins), PCDF (PolyChlorinated DibenzoFurans), CP (ChloroPhenols), CB (ChloroBenzenes), PCB (PolyChlorinated Biphenyls) and PAH (Polycyclic Aromatic Hydrocarbons).

SVOCs (PCDD/F) were sampled in accordance with the requirements of Environment Canada EPS 1/RM/2 sampling method entitled: " Reference Method for Source Testing: Measurement of Releases of Selected Semi-volatile Organic Compounds from Stationary Sources ". For this project, SVOCs included polychlorinated dibenzo-p-dioxins (PCDD) and polychlorinated dibenzofurans (PCDF). The sampling lasted 180 minutes and a minimal volume of at least 3.0 Rm³ was sampled during each run.

For one serie of three SVOC tests, a blank train was taken to the stack sampling site. A volume of ambient air equal to the sum of all leak check volumes during the SVOC test was pumped through the blank train, according to the requirements of reference method EPS 1/RM/2.

The following table shows the various components of the sampling system PCDD/F.

TABLE 3-6 – MAIN COMPONENTS OF A SVOC SAMPLING SYSTEM

| SAMPLING PROBE | SAMPLING TRAIN | CONTROL UNIT |
|---|--|---|
| <ul style="list-style-type: none"> • Glass nozzle of a precisely measured diameter to allow isokinetic sampling; • a glass heated probe to avoid moisture condensation; • this probe is fastened to an "S" type Pitot tube for gas velocity measurement and to a thermocouple for temperature measurement. | <ul style="list-style-type: none"> • A 0.3 µm porosity pre-weighted fiber glass filter mounted on an accurate holder and placed in a heated oven to avoid moisture condensation; • condenser; • XAD-2 resin cartridge; • Condensate trap; • Three impingers placed in series and containing: <ul style="list-style-type: none"> • # 1: 100 mL ethylene glycol; • # 2: empty; • # 3: silica gel; • impingers placed in an ice bath to condense all the flue gas moisture. | <ul style="list-style-type: none"> • Sampling cord that connects the train to the sampling console. • Sampling console with oil manometer, a dry gas meter, an orifice, a temperature reader and temperature controllers. • Diaphragm vacuum pump. |

3.6 Hydrogen chloride (HCL)

HCL was sampled in accordance with the requirements of Environment Canada EPS 1/RM/1 sampling method entitled: " Reference Method for Source Testing: Measurement of Releases of Gaseous Hydrogen Chloride from Stationary Sources ".

This is a non isokinetic sampling with a pumping rate of 1 L/min over a period of 20 minutes. Deionized water in the bubblers was recovered for the analysis of chlorides.

3.7 Gaseous parameters (O₂, CO₂, CO & NO_x)

A CEM (Continuous Emission Monitoring) system was used to determine the concentration of O₂, CO₂, CO & NO_x. The CEM system includes a gas extraction system, individual emission monitors and a data acquisition system. Stack gas was continuously extracted from the stack through a heated probe and a filter. The gas sample was pumped into a water condensing system of the mobile laboratory.

Graphics of continuous measurements of gas are presented in Appendix 2 of the report.

The moisture-free gas was analysed for O₂, CO₂, CO & NO_x and each analyzer is described in the following table.

TABLE 3-7 –CONTINUOUS EMISSION ANALYZER

| ANALYZER | O ₂ | CO / CO ₂ | NO / NO ₂ / NO _x |
|---------------|----------------|--------------------------|--|
| Method | USEPA 3A | USEPA 10 / 3A | USEPA 7E |
| Brand | Horiba | Horiba | Horiba |
| Model | PG 250 | PG 250 | PG 250 |
| Detector | Galvanic Cell | Infrared | chemiluminescence |
| Zero gas | Nitrogen | | |
| Working Scale | 0 – 25 % | 0 – 200 ppmv* / 0 – 30 % | 0 – 100 ppmv |

3.8 Sampling Program

3.8.1 Testing schedule

The testing schedule is presented in the table 3-8.

TABLE 3-8 – TESTING SCHEDULE

| SOURCE | DATE | TIME | TEST |
|-----------------------|------------------------------|---------------|---------------|
| Outlet of incinerator | June 30 th , 2016 | 13:00 – 16:10 | SVOC # 1 |
| | July 1 st , 2016 | 08:10 – 11:15 | SVOC # 2 |
| | July 1 st , 2016 | 13:00 – 16:05 | Metal/HCL # 1 |
| | July 2 nd , 2016 | 08:10 – 11:15 | Metal/HCL # 2 |
| | July 2 nd , 2016 | 13:00 – 16:05 | SVOC # 3 |
| | July 3 rd , 2016 | 08:30 – 11:40 | Metal/HCL # 3 |

3.9 LAWS AND REGULATIONS

3.9.1 Government of Nunavut

The government of Nunavut presented a guideline document in October 2010, which was revised in January 2012, for the burning and incineration of solid waste. The following emission standards apply to existing, new or expanding solid waste incinerators operating in Nunavut and have been adopted from the Canadian Council of Ministers of the Environment (CCME) Canada - Wide Standards for Dioxins and Furans and Mercury Emissions. The document presented two criterias for air emission which are applicable in the current project. A standard for Dioxins and Furans is stated at 80 pg I-TEQ/cubic metre and another standard for mercury is stated at 20 µg/Rcubic metre. The R conditions are stated at 101.3 kPa and 25°C. Both standards are corrected to 11% O₂.

4 QUALITY CONTROL PROCEDURES (QA/QC)

The quality insurance program and control at Consulair has several elements to validate the methodologies used during sampling. The main points are detailed within this section.

4.1 QA/QC when planning

4.1.1 Equipment, instruments and reagents

The sampling train glassware and sample containers has been cleaned and checked according to the applicable reference methods.

The instruments used were subject of regular maintenance and are calibrated for less than a year. The calibration constants of the equipment used are shown in Tables 4-1 to 4-3. Calibration certificates of equipment are presented in Appendix 3 of the report.

The gas standards used for calibration of the direct gas readings analyzer were valid at the time of use considering the retention periods imposed by the supplier. The standard gases are certified to $\pm 2\%$ by the supplier.

4.1.2 Field forms

The forms that present field data for the target parameters are shown in Appendix 5.

4.2 Sample tracking

A closed room near the incinerator was used for the assembly and the different stages of recovery of sampling trains. Recovery of samples was performed according to the procedures recommended by the methods.

The samples were collected in suitable containers as specified by the methods. All samples were kept cool during the sampling period and until the delivery of samples to analytical laboratories. Consulair used an identification system for the samples that allowed tracking the origin easily by a unique code coupled to a lookup table. Each sample number includes the date, test number, the precise location of the sampling, the nature and destination (analysis, archiving). This information is indicated on the custody list and the information is available on the analysis reports.

4.3 Validation criterias

Consulair ensured that each step of the air emission characterization program (including QA / QC program) will achieve the defined objectives, while respecting the deadline set by the customer.

4.3.1 Analytical laboratory

The particulate samples analysis was done in Consulair's laboratory. This laboratory is accredited by the Centre d'Expertise en Analyse Environnementale du Québec (CEAEQ) for particulate matter (domain 400 of the air chemical section). The metallic samples were analysed in Maxxam's laboratory, which is accredited by Centre d'Expertise en Analyse Environnementale du Québec (CEAEQ) for metallic analysis (domain 404 of the air chemical section). The PCDD/F samples were analysed in AGAT's

laboratory, which is accredited by Centre d'Expertise en Analyse Environnementale du Québec (CEAEQ) for PCDD/F analysis (domain 510 of the air chemical section).

The analytical reports have been signed by a chemist and is presented in appendix 4. The laboratory also made available, in its report, the QA/QC program specific to the analysed contaminant.

4.3.2 US EPA 5 – Validation criterias – Particulate matter Metals(PM/ME)

The following tables show the validation criteria of the methodology used.

TABLE 4-1 – QA/QCMETHODOLOGY – PM/METALS

| METHODOLOGY INFORMATION PM/METALS | | | | CRITERIAS |
|--|---------|---------|---------|------------------------------|
| CYCLONIC FLOW | | 0 | | ≤ 15° |
| REVERSE FLOW | | NO | | NO |
| RUN NUMBER | 1 | 2 | 3 | |
| STACK DIAMETER (ft) | | 38.0 | | ≥ 0.3 |
| A ₀ | | 2.0 | | ≥ 0.5 |
| B ₀ | | 5.0 | | ≥ 2.0 |
| SAMPLING TIME (min) | 180 | 180 | 180 | ≥ 120 |
| VOLUME SAMPLED (Nm ³) | 2.928 | 2.867 | 2.835 | ≥ 2.8 |
| ISOKINETICITY AVERAGE (%) | 101.0 | 101.0 | 102.0 | 90 ≤ ISO ≤ 110 |
| FLOW RATE (ft ³ /min) | 0.57 | 0.56 | 0.56 | ≤ 1.0 |
| PROBE TEMPERATURE | OK | OK | OK | 223 ≤ T ≤ 273 °F |
| FILTER TEMPERATURE | OK | OK | OK | 223 ≤ T ≤ 273 °F |
| OUTLET TEMPERATURE | OK | OK | OK | 32 ≤ T ≤ 68 °F |
| FLOW LEAK BEFORE at -15in Hg (ft ³ /min) | 0.005 | 0 | 0.005 | ≤ 0.02 |
| FLOW LEAK AFTER (ft ³ /min) | 0.005 | 0 | 0.005 | ≤ 0.02 |
| EQUIPMENT INFORMATION | | | | |
| NO. SAMPLING MODULE | 16 | 16 | 16 | |
| METER FACTOR K _C | 0.995 | 0.995 | 0.995 | 0.95 < K _C < 1.05 |
| ORIFICE FACTOR K _O | 0.763 | 0.763 | 0.763 | |
| PITOT ID | 05-07 Q | 05-07 Q | 05-07 Q | |
| PITOT FACTOR | 0.793 | 0.793 | 0.793 | |
| NOZZLE ID | 5Q-433 | 5Q-433 | 5Q-433 | |
| NOZZLE DIAMETER (in) | 0.4358 | 0.4358 | 0.4358 | |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

TABLE 4-2 – QA/QC METHODOLOGY – SVOC

| METHODOLOGY INFORMATION SVOC | | | | |
|--|---------|---------|---------|------------------------------|
| | | | | CRITERIAS |
| CYCLONIC FLOW | | 0 | | ≤ 15° |
| REVERSE FLOW | | NO | | NO |
| RUN NUMBER | 1 | 2 | 3 | |
| STACK DIAMETER (ft) | | 38.0 | | ≥ 0.3 |
| A ₀ | | 2.0 | | ≥ 0.5 |
| B ₀ | | 5.0 | | ≥ 2.0 |
| SAMPLING TIME (min) | 180 | 180 | 180 | ≥ 180 |
| VOLUME SAMPLED (Nm ³) | 2.8 | 2.9 | 2.9 | ≥ 3.0 |
| ISOKINETICITY AVERAGE (%) | 101.0 | 102.0 | 103.0 | 90 ≤ ISO ≤ 110 |
| FLOW RATE (ft ³ /min) | 0.55 | 0.57 | 0.58 | ≤ 1.0 |
| PROBE TEMPERATURE | OK | OK | OK | 223 ≤ T ≤ 273 °F |
| FILTER TEMPERATURE | OK | OK | OK | 223 ≤ T ≤ 273 °F |
| OUTLET TEMPERATURE | OK | OK | OK | 32 ≤ T ≤ 68 °F |
| FLOW LEAK BEFORE at -15in Hg (ft ³ /min) | 0 | 0 | 0 | ≤ 0.02 or 4% Dmoy |
| FLOW LEAK AFTER (ft ³ /min) | 0 | 0 | 0 | ≤ 0.02 or 4% Dmoy |
| EQUIPMENT INFORMATION | | | | |
| NO. SAMPLING MODULE | 16 | 16 | 16 | |
| METER FACTOR K _C | 0.995 | 0.995 | 0.995 | 0.95 < K _C < 1.05 |
| ORIFICE FACTOR K _O | 0.763 | 0.763 | 0.763 | |
| PITOT ID | 05-07 Q | 05-07 Q | 05-07 Q | |
| PITOT FACTOR | 0.793 | 0.793 | 0.793 | |
| NOZZLE ID | 5Q-432 | 5Q-432 | 5Q-432 | |
| NOZZLE DIAMETER (in) | 0.4335 | 0.4335 | 0.4335 | |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

The sampled volumes are under the 3.0 Nm³ suggested limit of the method because of the selected sampling equipment. However, this low volume has no impact on the result since there was detection of the PCDD/F in the analysis. For subsequent sampling, a bigger nozzle diameter should be used if the gas flow stays as low as it was during this sampling project.

5 RESULTS

The normalized values are reported at a temperature of 25 °C and an atmospheric pressure of 101.3 kPa, on a dry basis.

In laboratory analysis reports, a result presented as "<LDR" means that the laboratory result is less than the detection limit reported (LDR) and represents a maximum result. In this case, the detection limit reported (LDR) is the value used.

Unless otherwise indicated, the averages indicated in the tables below are the average of all tests carried out to the same source for the same operating condition.

Computer compiled data is presented in Appendix 1.

TABLE 5-1 – RESULTS PM – HCL

| SCHEDULE OF TESTS | | | | |
|--|--------------|--------------|--------------|--------------|
| SERIAL NUMBER TEST | ME-1 | ME-2 | ME-3 | AVERAGE |
| DATE | 01/07/16 | 02/07/16 | 03/07/16 | (1 à 3) |
| START OF TEST | 13:00 | 08:10 | 08:30 | |
| END OF TEST | 16:05 | 11:15 | 11:40 | |
| DURATION OF THE TEST (MINUTES) | 180 | 180 | 180 | |
| STACK GAS PROPERTIES | | | | |
| TEMPERATURE (°C) | 543 | 503 | 530 | 525 |
| MOISTURE (% v/v) | 4.8 | 5.37 | 5.5 | 5.2 |
| VELOCITY (m/s) | 8.0 | 7.5 | 7.6 | 7.7 |
| VOLUMETRIC FLOW RATE (m ³ /h) | 21 172 | 19 707 | 20 051 | 20 310 |
| VOLUMETRIC FLOW RATE (ft ³ /min) (ACFM) | 12 461 | 11 599 | 11 801 | 11 954 |
| VOLUMETRIC FLOW RATE(REFERENCE) (Nm ³ /h) | 7 376 | 7 188 | 7 053 | 7 206 |
| VOLUMETRIC FLOW RATE(REFERENCE) (Nft ³ /min) (SCFM) | 4 341 | 4 231 | 4 152 | 4 241 |
| GAS COMPOSITION | | | | |
| CO ₂ (% v/v d) | 3.3 | 3.7 | 4.1 | 3.7 |
| O ₂ (% v/v d) | 16.0 | 15.4 | 14.7 | 15.4 |
| CO (ppmvd) | 4 | 3 | 5 | 4 |
| PARTICULATE MATTER | | | | |
| PARTICULATE MATTER (mg/Nm ³) | 21.04 | 19.22 | 41.31 | 27.19 |
| PARTICULATE MATTER (mg/Nm³) at 11 % O₂ | 42.5 | 34.8 | 65.89 | 47.7 |
| PARTICULATE MATTER (kg/h) | 0.16 | 0.14 | 0.29 | 0.19 |
| PARTICULATE MATTER (g/s) | 0.04 | 0.04 | 0.08 | 0.05 |
| HCl | | | | |
| HCl (mg/Nm ³) | 9.86 | 10.46 | 9.96 | 10.09 |
| HCl (mg/Nm³) at 11 % O₂ | 19.91 | 18.94 | 15.89 | 18.24 |
| HCl (ppm) | 6.61 | 7.01 | 6.68 | 6.77 |
| HCl (kg/h) | 0.07 | 0.08 | 0.07 | 0.07 |
| HCl (g/s) | 0.02 | 0.02 | 0.02 | 0.02 |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

Table 5-2 – RESULT METALS

| SCHEDULE OF TESTS | | | | |
|--|-------------|-------------|--------------|-------------|
| SERIAL NUMBER TEST | ME-1 | ME-2 | ME-3 | AVERAGE |
| DATE | 01/07/16 | 02/07/16 | 03/07/16 | (1 à 3) |
| START OF TEST | 13:00 | 08:10 | 08:30 | |
| END OF TEST | 16:05 | 11:15 | 11:40 | |
| DURATION OF THE TEST (MINUTES) | 180 | 180 | 180 | |
| CONCENTRATION TOTAL METALS ($\mu\text{g}/\text{Nm}^3$) | | | | |
| Aluminium (Al) | 26.98 | 22.32 | 41.27 | 30.19 |
| Antimony(Sb) | 13.2 | 7.2 | 11.2 | 10.5 |
| Silver (Ag) | 1.5 | 1.4 | 1.4 | 1.5 |
| Arsenic (As) | 2.1 | 0.6 | 0.7 | 1.1 |
| Baryum (Ba) | 0.8 | 0.6 | 1.0 | 0.8 |
| Béryllium (Be) | < 0.120 | < 0.122 | < 0.123 | < 0.122 |
| Bismuth (Bi) | 0.6 | 0.5 | 0.4 | 0.5 |
| Boron (B) | 12.0 | 14.3 | 28.8 | 18.3 |
| Cadmium (Cd) | 1.1 | 0.6 | 0.7 | 0.8 |
| Calcium (Ca) | 5474.5 | 3882.4 | 10593.2 | 6650.0 |
| Chromium (Cr) | 58.1 | 5.4 | 6.1 | 23.2 |
| Cobalt (Co) | < 0.239 | 0.5 | 0.2 | 0.3 |
| Copper (Cu) | 16.4 | 16.5 | 28.0 | 20.3 |
| Tin (Sn) | 47.8 | 33.0 | 40.2 | 40.3 |
| Iron (Fe) | 145.8 | 74.3 | 66.7 | 95.6 |
| Lithium (Li) | 9.2 | 5.6 | 7.4 | 7.4 |
| Magnesium (Mg) | 56.4 | 33.5 | 72.3 | 54.1 |
| Manganese (Mn) | 2.7 | 1.6 | 1.6 | 2.0 |
| Mercury (Hg) | < 0.225 | < 0.230 | < 0.233 | < 0.229 |
| Molybdenum (Mo) | 21.8 | 24.7 | 17.8 | 21.4 |
| Nickel (Ni) | 0.9 | 41.4 | 1.1 | 14.5 |
| Lead (Pb) | 21.3 | 19.4 | 18.9 | 19.9 |
| Potassium (K) | 4467.0 | 2019.7 | 2661.2 | 3049.3 |
| Selenium (Se) | 0.5 | 0.8 | 0.8 | 0.7 |
| Silicium (Si) | 205.6 | 125.9 | 222.2 | 184.6 |
| Sodium (Na) | 1692.6 | 1114.8 | 1527.1 | 1444.8 |
| Strontium (Sr) | 2.5 | 2.0 | 4.7 | 3.0 |
| Thallium (Tl) | < 0.239 | < 0.209 | < 0.212 | < 0.220 |
| Titanium (Ti) | 35.5 | 3.1 | 4.2 | 14.3 |
| Vanadium (V) | 4.4 | 0.5 | 0.7 | 1.9 |
| Zinc (Zn) | 796.5 | 1088.7 | 3194.0 | 1693.1 |
| TOTAL METALS | 5867 | 4099 | 10900 | 6955 |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

| SCHEDULE OF TESTS | | | | |
|--|-----------------|----------------|-----------------|--------------|
| SERIAL NUMBER TEST | ME-1 | ME-2 | ME-3 | AVERAGE |
| DATE | 01/07/16 | 02/07/16 | 03/07/16 | (1 à 3) |
| START OF TEST | 13:00 | 08:10 | 08:30 | |
| END OF TEST | 16:05 | 11:15 | 11:40 | |
| DURATION OF THE TEST (MINUTES) | 180 | 180 | 180 | |
| TOTAL METALS ($\mu\text{g}/\text{Nm}^3$) À 11 % O ₂ | | | | |
| Aluminium (Al) | 53.94 | 44.64 | 82.52 | 60.37 |
| Antimony(Sb) | 26.43 | 14.30 | 22.43 | 21.1 |
| Silver (Ag) | 3.07 | 2.79 | 2.89 | 2.9 |
| Arsenic (As) | 4.17 | 1.19 | 1.41 | 2.3 |
| Baryum (Ba) | 1.50 | 1.25 | 1.96 | 1.6 |
| Béryllium (Be) | < 0.24 | < 0.24 | < 0.25 | < 0.243 |
| Bismuth (Bi) | 1.13 | 0.97 | 0.81 | 1.0 |
| Boron (B) | 23.90 | 28.53 | 57.62 | 36.7 |
| Cadmium (Cd) | 2.12 | 1.13 | 1.35 | 1.5 |
| Calcium (Ca) | 10945.99 | 7762.68 | 21180.51 | 13296.4 |
| Chromium (Cr) | 116.08 | 10.74 | 12.20 | 46.3 |
| Cobalt (Co) | < 0.48 | 0.91 | 0.42 | 0.6 |
| Copper (Cu) | 32.84 | 33.06 | 56.00 | 40.6 |
| Tin (Sn) | 95.60 | 65.91 | 80.41 | 80.6 |
| Iron (Fe) | 291.57 | 148.56 | 133.30 | 191.1 |
| Lithium (Li) | 18.44 | 11.16 | 14.81 | 14.8 |
| Magnesium (Mg) | 112.67 | 66.96 | 144.59 | 108.1 |
| Manganese (Mn) | 5.46 | 3.14 | 3.24 | 3.9 |
| Mercury (Hg) | < 0.45 | < 0.46 | < 0.47 | < 0.459 |
| Molybdenum (Mo) | 43.57 | 49.38 | 35.55 | 42.8 |
| Nickel (Ni) | 1.84 | 82.72 | 2.26 | 28.9 |
| Lead (Pb) | 42.61 | 38.85 | 37.88 | 39.8 |
| Potassium (K) | 8931.60 | 4038.27 | 5320.87 | 6096.9 |
| Selenium (Se) | 1.02 | 1.60 | 1.55 | 1.4 |
| Silicium (Si) | 411.07 | 251.78 | 444.35 | 369.1 |
| Sodium (Na) | 3384.17 | 2229.07 | 3053.29 | 2888.8 |
| Strontium (Sr) | 4.98 | 3.98 | 9.31 | 6.1 |
| Thallium (Tl) | < 0.48 | < 0.42 | < 0.42 | < 0.440 |
| Titanium (Ti) | 71.02 | 6.28 | 8.46 | 28.6 |
| Vanadium (V) | 8.74 | 1.05 | 1.34 | 3.7 |
| Zinc (Zn) | 1592.60 | 2176.83 | 6386.17 | 3385.2 |
| TOTAL METALS | 11730.17 | 8194.99 | 21793.49 | 13906 |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

| SCHEDULE OF TESTS | | | | |
|--|--------------|--------------|--------------|--------------|
| SERIAL NUMBER TEST | ME-1 | ME-2 | ME-3 | AVERAGE |
| DATE | 01/07/16 | 02/07/16 | 03/07/16 | (1 à 3) |
| START OF TEST | 13:00 | 08:10 | 08:30 | |
| END OF TEST | 16:05 | 11:15 | 11:40 | |
| DURATION OF THE TEST (MINUTES) | 180 | 180 | 180 | |
| EMISSION TOTAL METALS (g/h) | | | | |
| Aluminium (Al) | 0.19900 | 0.16046 | 0.29111 | 0.21686 |
| Antimony (Sb) | 0.09748 | 0.05140 | 0.07912 | 0.07600 |
| Silver (Ag) | 0.01134 | 0.01003 | 0.01020 | 0.01052 |
| Arsenic (As) | 0.01537 | 0.00426 | 0.00498 | 0.00820 |
| Baryum (Ba) | 0.00554 | 0.00449 | 0.00692 | 0.00565 |
| Béryllium (Be) | < 0.0009 | < 0.0009 | < 0.0009 | < 0.0009 |
| Bismuth (Bi) | 0.00418 | 0.00349 | 0.00286 | 0.00351 |
| Boron (B) | 0.08816 | 0.10255 | 0.20328 | 0.13133 |
| Cadmium (Cd) | 0.00781 | 0.00406 | 0.00475 | 0.00554 |
| Calcium (Ca) | 40.37912 | 27.90562 | 74.71893 | 47.66789 |
| Chromium (Cr) | 0.42823 | 0.03861 | 0.04304 | 0.16996 |
| Cobalt (Co) | < 0.0018 | 0.00326 | 0.00149 | 0.00217 |
| Copper (Cu) | 0.12116 | 0.11884 | 0.19756 | 0.14585 |
| Tin (Sn) | 0.35266 | 0.23693 | 0.28365 | 0.29108 |
| Iron (Fe) | 1.07560 | 0.53404 | 0.47026 | 0.69330 |
| Lithium (Li) | 0.06801 | 0.04012 | 0.05225 | 0.05346 |
| Magnesium (Mg) | 0.41563 | 0.24070 | 0.51007 | 0.38880 |
| Manganese (Mn) | 0.02015 | 0.01128 | 0.01145 | 0.01429 |
| Mercury (Hg) | < 0.0017 | < 0.0017 | < 0.0016 | < 0.0017 |
| Molybdenum (Mo) | 0.16071 | 0.17751 | 0.12540 | 0.15454 |
| Nickel (Ni) | 0.00680 | 0.29736 | 0.00796 | 0.10404 |
| Lead (Pb) | 0.15718 | 0.13965 | 0.13361 | 0.14348 |
| Potassium (K) | 32.94815 | 14.51694 | 18.77055 | 22.07855 |
| Selenium (Se) | 0.00378 | 0.00577 | 0.00547 | 0.00501 |
| Silicium (Si) | 1.51642 | 0.90511 | 1.56753 | 1.32969 |
| Sodium (Na) | 12.48402 | 8.01315 | 10.77117 | 10.42278 |
| Strontium (Sr) | 0.01839 | 0.01429 | 0.03284 | 0.02184 |
| Thallium (Tl) | < 0.0018 | < 0.0015 | < 0.0015 | < 0.0016 |
| Titanium (Ti) | 0.26197 | 0.02257 | 0.02986 | 0.10480 |
| Vanadium (V) | 0.03224 | 0.00376 | 0.00473 | 0.01358 |
| Zinc (Zn) | 5.87500 | 7.82536 | 22.52864 | 12.07633 |
| TOTAL METALS | 43.27 | 29.46 | 76.88 | 49.87 |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

TABLE 5-3 – CONCENTRATION - PCDD/F

| SCHEDULE OF TESTS | | | | |
|--|--------------|---------------|--------------|----------------|
| SERIAL NUMBER TEST | COSV-1 | COSV-2 | COSV-3 | AVERAGE |
| DATE | 30/06/16 | 01/07/16 | 02/07/16 | |
| START OF TEST | 13:00 | 08:10 | 13:00 | |
| END OF TEST | 16:10 | 11:15 | 16:05 | |
| DURATION OF THE TEST (MINUTES) | 180 | 180 | 180 | 180 |
| MOISTURE AND GAS SAMPLE VOLUME | | | | |
| MOISTURE (%) | 4.4 | 6.6 | 4.3 | 5.1 |
| GAS SAMPLE VOLUME (Nm ³) | 2.80 | 2.93 | 2.94 | 2.89 |
| STACK GAS PROPERTIES | | | | |
| TEMPÉRATURE (°C) | 507 | 505 | 553 | 522 |
| VELOCITY (m/s) | 7.4 | 7.8 | 8.1 | 7.7 |
| VOLUMETRIC FLOW RATE (ft ³ /min) (ACFM) | 11437 | 12079 | 12491 | 12002 |
| VOLUMETRIC FLOW RATE(REFERENCE) (Npi ³ /m) (SCFM) | 4189 | 4332 | 4323 | 4281 |
| VOLUMETRIC FLOW RATE (m ³ /h) | 19431 | 20523 | 21223 | 20392 |
| VOLUMETRIC FLOW RATE(REFERENCE) (Nm ³ /h) | 7116 | 7360 | 7345 | 7274 |
| GAS COMPOSITION | | | | |
| CO ₂ (% v/v d) | 2.8 | 4.1 | 3.3 | 3.4 |
| O ₂ (% v/v d) | 16.6 | 15.1 | 16.1 | 15.9 |
| CO (ppmvd) | 8.6 | 4.8 | 8.8 | 7.4 |
| PCDD/DF (ng/Nm ³) (< = DL value) | | | | |
| 2,3,7,8 - Tetra CDD | < DL | 0.00222 | < DL | 0.0010 |
| 1,2,3,7,8 - Penta CDD | < DL | 0.0099 | < DL | 0.0038 |
| 1,2,3,4,7,8 - Hexa CDD | < DL | 0.00547 | < DL | 0.0022 |
| 1,2,3,6,7,8 - Hexa CDD | < DL | 0.0154 | 0.0014 | 0.0057 |
| 1,2,3,7,8,9 - Hexa CDD | < DL | 0.0219 | 0.0017 | 0.0080 |
| 1,2,3,4,6,7,8 - Hepta CDD | 0.0043 | 0.0673 | 0.004 | 0.025 |
| 1,2,3,4,6,7,8,9 - Octa CDD | 0.0122 | 0.0704 | 0.006 | 0.030 |
| 2, 3, 7, 8 - Tetra CDF | < DL | 0.0362 | 0.001 | 0.012 |
| 1,2,3,7,8 - Penta CDF | 0.0014 | 0.0243 | 0.001 | 0.009 |
| 2,3,4,7,8 - Penta CDF | 0.001 | 0.0386 | 0.001 | 0.014 |
| 1,2,3,4,7,8 - Hexa CDF | 0.0025 | 0.0615 | 0.002 | 0.022 |
| 1,2,3,6,7,8 - Hexa CDF | 0.0011 | 0.0290 | 0.001 | 0.010 |
| 2,3,4,6,7,8 - Hexa CDF | 0.0011 | 0.0362 | 0.001 | 0.0129 |
| 1,2,3,7,8,9 - Hexa CDF | 0.00036 | 0.00171 | < DL | 0.0010 |
| 1,2,3,4,6,7,8 - Hepta CDF | 0.0021 | 0.0738 | 0.002 | 0.026 |
| 1,2,3,4,7,8,9 - Hepta CDF | < DL | 0.0051 | < DL | 0.0022 |
| 1,2,3,4,6,7,8,9 - Octa CDF | 0.0018 | 0.0140 | 0.0027 | 0.0062 |
| Total Tetra CDD | 0.015 | 0.235 | 0.01 | 0.088 |
| Total Penta CDD | 0.015 | 0.222 | 0.02 | 0.085 |
| Total Hexa CDD | 0.020 | 0.215 | 0.02 | 0.084 |
| Total Hepta CDD | 0.0082 | 0.148 | 0.009 | 0.055 |
| Octa CDD | 0.07 | 0.89 | 0.06 | 0.34 |
| CDD TOTALS | 0.13 | 1.71 | 0.12 | 0.65 |
| Total Tetra CDF | 0.04 | 1.13 | 0.04 | 0.40 |
| Total Penta CDF | 0.01 | 0.44 | 0.01 | 0.16 |
| Total Hexa CDF | 0.008 | 0.228 | 0.01 | 0.08 |
| Total Hepta CDF | 0.0032 | 0.100 | 0.004 | 0.036 |
| Octa CDF | 0.07 | 1.91 | 0.1 | 0.68 |
| CDF TOTALS | 0.13 | 3.81 | 0.1 | 1.4 |
| TOXIC EQUIVALENT | 0.001 | 0.0548 | 0.001 | 0.019 |
| CONGENERS TOTALS TOXIC | 0.031 | 0.513 | 0.03 | 0.19 |
| TOTAL HOMOLOGUOUS GROUPS | 0.3 | 5.52 | 0.2 | 2.0 |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

TABLE 5-4 – CONCENTRATION - PCDD/F

| SCHEDULE OF TESTS | | | | |
|--|--------------|---------------|--------------|--------------|
| SERIAL NUMBER TEST | COSV-1 | COSV-2 | COSV-3 | AVERAGE |
| DATE | 30/06/16 | 01/07/16 | 02/07/16 | |
| START OF TEST | 13:00 | 8:10 | 13:00 | |
| END OF TEST | 16:10 | 11:15 | 16:05 | |
| DURATION OF THE TEST (MINUTES) | 180 | 180 | 180 | 180 |
| PCDD/F (ng/Nm ³) at 11 % O ₂ | | | | |
| 2,3,7,8 - Tetra CDD | < DL | 0.00378 | < DL | 0.0018 |
| 1,2,3,7,8 - Penta CDD | < DL | 0.0169 | < DL | 0.0067 |
| 1,2,3,4,7,8 - Hexa CDD | < DL | 0.000931 | < DL | 0.00038 |
| 1,2,3,6,7,8 - Hexa CDD | < DL | 0.00262 | 0.00028 | 0.00099 |
| 1,2,3,7,8,9 - Hexa CDD | < DL | 0.00372 | 0.00034 | 0.00138 |
| 1,2,3,4,6,7,8 - Hepta CDD | 0.000097 | 0.001146 | 0.00008 | 0.00044 |
| 1,2,3,4,6,7,8,9 - Octa CDD | 0.00000276 | 0.00001198 | 0.0000013 | 0.0000053 |
| 2, 3, 7, 8 - Tetra CDF | < DL | 0.00616 | 0.0001 | 0.0021 |
| 1,2,3,7,8 - Penta CDF | 0.00016 | 0.00206 | 0.0001 | 0.0008 |
| 2,3,4,7,8 - Penta CDF | 0.0012 | 0.0329 | 0.001 | 0.012 |
| 1,2,3,4,7,8 - Hexa CDF | 0.00057 | 0.01047 | 0.0004 | 0.0038 |
| 1,2,3,6,7,8 - Hexa CDF | 0.00024 | 0.00494 | 0.0003 | 0.0018 |
| 2,3,4,6,7,8 - Hexa CDF | 0.00024 | 0.00616 | 0.0003 | 0.00223 |
| 1,2,3,7,8,9 - Hexa CDF | 0.000081 | 0.000291 | < DL | 0.00019 |
| 1,2,3,4,6,7,8 - Hepta CDF | 0.000049 | 0.001256 | 0.00003 | 0.00045 |
| 1,2,3,4,7,8,9 - Hepta CDF | < DL | 0.000087 | < DL | 0.000039 |
| 1,2,3,4,6,7,8,9 - Octa CDF | 0.00000041 | 0.00000238 | 0.00000055 | 0.00000111 |
| TOXIC EQUIVALENT TOTAL | 0.003 | 0.0934 | 0.003 | 0.033 |
| STANDARD (ng/Nm³) at 11% O₂ | 0.08 | | | |
| TOXIC EQUIVALENT TOTAL / % OF THE STANDARD | 3% | 117% | 4% | 41% |
| PCDD/F (ug/h) (<= DL value) | | | | |
| 2,3,7,8 - Tetra CDD | < DL | 0.016 | < DL | 0.007 |
| 1,2,3,7,8 - Penta CDD | < DL | 0.073 | 0.00 | 0.028 |
| 1,2,3,4,7,8 - Hexa CDD | < DL | 0.0040 | 0.0005 | 0.0016 |
| 1,2,3,6,7,8 - Hexa CDD | 0.0003 | 0.0113 | 0.001 | 0.0042 |
| 1,2,3,7,8,9 - Hexa CDD | 0.0003 | 0.0161 | 0.0012 | 0.0059 |
| 1,2,3,4,6,7,8 - Hepta CDD | < DL | 0.0050 | 0.0003 | 0.0019 |
| 1,2,3,4,6,7,8,9 - Octa CDD | 0.000009 | 0.000052 | 0.000005 | 0.000022 |
| 2, 3, 7, 8 - Tetra CDF | 0.000 | 0.027 | 0.000 | 0.009 |
| 1,2,3,7,8 - Penta CDF | 0.0005 | 0.0089 | 0.000 | 0.003 |
| 2,3,4,7,8 - Penta CDF | 0.00 | 0.142 | 0.00 | 0.05 |
| 1,2,3,4,7,8 - Hexa CDF | 0.002 | 0.045 | 0.00 | 0.016 |
| 1,2,3,6,7,8 - Hexa CDF | 0.001 | 0.0214 | < DL | 0.008 |
| 2,3,4,6,7,8 - Hexa CDF | 0.0008 | 0.0267 | 0.001 | 0.009 |
| 1,2,3,7,8,9 - Hexa CDF | < DL | 0.0013 | < DL | 0.0008 |
| 1,2,3,4,6,7,8 - Hepta CDF | 0.00015 | 0.0054 | 0.0001 | 0.0019 |
| 1,2,3,4,7,8,9 - Hepta CDF | 0.00005 | 0.00038 | 0.00005 | 0.00016 |
| 1,2,3,4,6,7,8,9 - Octa CDF | 0.0000013 | 0.0000103 | 0.0000020 | 0.0000045 |
| TOXIC EQUIVALENT | 0.01 | 0.40 | 0.01 | 0.14 |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | | | | |

TABLE 5-5 – CONTINUOUS MEASUREMENTS OF GAS

| SCHEDULE OF TESTS | |
|--|----------|
| SERIAL NUMBER TEST | E-1 |
| DATE | 02/07/16 |
| START OF TEST | 08:13 |
| END OF TEST | 11:17 |
| DURATION OF THE TEST (MINUTES) | 60 |
| SPECIFICATIONS FOR MEASURES OF GAS | |
| STACK TEMPERATURE (°C) | 503 |
| CO ₂ (% v/v d) | 4.3 |
| O ₂ (% v/v d) | 15.2 |
| CO (ppmvd) | 3 |
| NITROGEN OXIDES (NO_x as NO₂) | |
| NO _x (ppmvd) average | 26 |
| NO _x (ppmvd) minimum | 12 |
| NO _x (ppmvd) maximum | 34 |
| NO _x équivalent NO ₂ (mg/Nm ³) | 49 |
| AVERAGE EMISSION (kg/h) | 0.35 |
| CARBON MONOXIDE (CO) | |
| CO (ppmvd) average | 3 |
| CO (ppmvd) minimum | 0 |
| CO (ppmvd) maximum | 8 |
| CO (mg/Nm ³) | 3 |
| AVERAGE EMISSION (kg/h) | 0.02 |
| OXYGEN (O₂) | |
| O ₂ (% v/v d) average | 15.2 |
| O ₂ (% v/v d) minimum | 13.7 |
| O ₂ (% v/v d) maximum | 16.5 |
| O ₂ (mg/Nm ³) | 198 400 |
| AVERAGE EMISSION (kg/h) | 1 433 |
| CARBON DIOXIDE (CO₂) | |
| CO ₂ (% v/v d) moyenne | 4.3 |
| CO ₂ (% v/v d) minimum | 3.3 |
| CO ₂ (% v/v d) maximum | 5.3 |
| CO ₂ (mg/Nm ³) | 76 713 |
| AVERAGE EMISSION CO ₂ (kg/h) | 554 |
| AVERAGE EMISSION CO ₂ (g/s) | 154 |
| N: Reference conditions at 101.3 kPa et 25 °C, and dry basis. | |

6 CONCLUSION

According to the sampling methods and procedures combined with a rigorous quality control, the results of concentrations and / or emission rates presented in this report are valid and representative of process operation conditions sampled for period test results.

The applicable standard for dioxins and furans (PCDD/F) were met during tests # 1 and # 3 and the average test result met the standard. The test result #2 does not meet the standard but does not exceed 20% of the standard. The test results #2 exceed the standard of 12.5%.

The final results obtained are valid and representative of the operating conditions during the tests.

The sampling was made in compliance with the rules of the requirements of the Report No. EPS 3/UP/2, including methods recommended by “Environment and Climate Change Canada” (ECCC) of the Government of Canada inside “Environment Canada, The National Incinerator Testing and Evaluation Program: Air Pollution Control Technology. Report No. EPS 3/UP/2, Ottawa, 1986.

7 REFERENCES

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USEPA (1971), method 6C, Determination of Sulfur Dioxide Emissions from Stationary Sources, 5 pages.

USEPA (1971), method 7E, Determination of Nitrogen Oxide Emissions from Stationary Sources, 27 pages.

USEPA (1971), method 10, Determination of carbon monoxide emissions from stationary sources, 5 pages.

APPENDIX 1

COMPILED DATA COMPUTER



AEM / 4411
INCINERATOR
SVOC - PCDD/DF

| HORAIRE DES ESSAIS | | | | | | | | | |
|--|-------------|-----------------|------------|-----------------|------------|-----------------|------------|------------|--------------|
| ESSAI NUMÉRO | FACTEUR | PCDD/DF-1 | QUANTITÉ | PCDD/DF-2 | QUANTITÉ | PCDD/DF-3 | QUANTITÉ | MOYENNE | MOYENNE |
| DATE DE L'ESSAI | DE TOXICITÉ | <u>30/06/16</u> | PRÉLEVÉE, | <u>01/07/16</u> | PRÉLEVÉE, | <u>02/07/16</u> | PRÉLEVÉE, | (1 à 3) | (1 à 3) |
| DÉBUT DE L'ESSAI | | <u>13:00</u> | EN | <u>08:10</u> | EN | <u>13:00</u> | EN | ÉQUIVALENT | AVANT |
| FIN DE L'ESSAI | | <u>16:10</u> | ÉQUIVALENT | <u>11:15</u> | ÉQUIVALENT | <u>16:05</u> | ÉQUIVALENT | TOTAUX | CORRECTION |
| DURÉE DE L'ESSAI (minutes) | | 180 | | 180 | | 180 | | | |
| NOMBRE DE POINTS | | 36 | | 36 | | 36 | | | |
| DONNÉES DES ÉQUIPEMENTS D'ÉCHANTILLONNAGE | | | | | | | | | |
| PRESSION BAROMÉTRIQUE ("Hg) | | <u>29.99</u> | | <u>29.99</u> | | <u>29.99</u> | | | 29.99 |
| PRESSION STATIQUE ("H ₂ O) | | <u>-0.14</u> | | <u>-0.14</u> | | <u>-0.14</u> | | | -0.14 |
| COEFFICIENT DU COMPTEUR | | <u>0.995</u> | | <u>0.995</u> | | <u>0.995</u> | | | 0.995 |
| COEFFICIENT DU PITOT | | <u>0.793</u> | | <u>0.793</u> | | <u>0.793</u> | | | 0.793 |
| DIAMÈTRE DE LA BUSE (po) | | <u>0.4335</u> | | <u>0.4335</u> | | <u>0.4335</u> | | | 0.434 |
| TEMPÉRATURE COMPTEUR (°F) | | 82 | | 78 | | 88 | | | 83 |
| TEMPÉRATURE COMPTEUR (°C) | | 28 | | 26 | | 31 | | | 28 |
| HUMIDITÉ DES GAZ & VOLUME ÉCHANTILLONNÉ | | | | | | | | | |
| VOLUME D'EAU (g) | | <u>94.9</u> | | <u>151.9</u> | | <u>97.2</u> | | | 114.7 |
| VOLUME D'EAU (pi ³) | | 4.56 | | 7.29 | | 4.67 | | | 5.50 |
| HUMIDITÉ GAZ (BWO) | | 0.044 | | 0.066 | | 0.043 | | | 0.051 |
| HUMIDITÉ GAZ (%) | | 4.4 | | 6.6 | | 4.3 | | | 5.1 |
| VOLUME GAZ RÉFÉRENCE (pi ³) | | 98.71 | | 103.37 | | 103.93 | | | 102.00 |
| VOLUME GAZ RÉFÉRENCE (m³) | | 2.795 | | 2.927 | | 2.943 | | | 2.888 |
| CARACTÉRISTIQUES DU CONDUIT | | | | | | | | | |
| DIAMÈTRES AVANT LES TROUS D'ÉCHANTILLONNAGE | | <u>8.0</u> | | <u>8.0</u> | | <u>8.0</u> | | | 8.0 |
| DIAMÈTRES APRÈS LES TROUS D'ÉCHANTILLONNAGE | | <u>2.0</u> | | <u>2.0</u> | | <u>2.0</u> | | | 2.0 |
| DIAMÈTRE DU CONDUIT (pi) | | <u>3.17</u> | | <u>3.17</u> | | <u>3.17</u> | | | 3.17 |
| DIAMÈTRE DU CONDUIT (m) | | 0.965 | | 0.965 | | 0.965 | | | 0.97 |
| LONGUEUR DU CONDUIT (pi) | | <u>0.0</u> | | <u>0.0</u> | | <u>0.0</u> | | | 0.0 |
| LARGEUR DU CONDUIT (pi) | | <u>0.0</u> | | <u>0.0</u> | | <u>0.0</u> | | | 0.0 |
| PRESSION CONDUIT ("Hg) | | 29.98 | | 29.98 | | 29.98 | | | 29.98 |
| PRESSION COMPTEUR ("Hg) | | 30.05 | | 30.06 | | 30.06 | | | 30.05 |
| SURFACE DU CONDUIT (pi ²) | | 7.9 | | 7.9 | | 7.9 | | | 7.9 |
| SURFACE DU CONDUIT (m ²) | | 0.73 | | 0.73 | | 0.73 | | | 0.73 |
| CARACTÉRISTIQUES DES GAZ | | | | | | | | | |
| TEMPÉRATURE CHEMINÉE (°F) | | 944 | | 942 | | 1028 | | | 971 |
| TEMPÉRATURE CHEMINÉE (°C) | | 506.9 | | 505.3 | | 553.3 | | | 521.8 |
| CO ₂ (%) | | 2.8 | | 4.1 | | 3.3 | | | 3.4 |
| O ₂ (%) | | 16.6 | | 15.1 | | 16.1 | | | 15.9 |
| CO (ppm) | | 9 | | 5 | | 8.8 | | | 7 |
| N ₂ (%) | | 79.6 | | 79.8 | | 79.7 | | | 79.7 |
| Ar (%) | | 0.95 | | 0.95 | | 0.95 | | | 1.0 |
| POIDS MOLÉCULAIRE SEC | | 29.23 | | 29.37 | | 29.28 | | | 29.29 |
| POIDS MOLÉCULAIRE HUMIDE | | 28.73 | | 28.63 | | 28.80 | | | 28.72 |
| VITESSE DES GAZ (pi/s) | | 24.2 | | 25.6 | | 26.4 | | | 25.4 |
| VITESSE DES GAZ (m/s) | | 7.4 | | 7.8 | | 8.1 | | | 7.7 |
| DÉBITS GAZ ACTUELS (pi ³ /h) | | 686196 | | 724764 | | 749471 | | | 720143 |
| DÉBITS GAZ ACTUELS (m ³ /h) | | 19431 | | 20523 | | 21223 | | | 20392 |
| DÉBITS GAZ ACTUELS (pi ³ /m)(ACFM) | | 11437 | | 12079 | | 12491 | | | 12002 |
| DÉBITS GAZ NORMALISÉS (Npi ³ /h) | | 251313 | | 259922 | | 259370 | | | 256869 |
| DÉBITS GAZ NORMALISÉS (Nm³/h) | | 7116 | | 7360 | | 7345 | | | 7274 |
| DÉBITS GAZ NORMALISÉS (Nm³/h) à 11 % O₂ | | 3098 | | 4293 | | 3588 | | | 3659 |
| DÉBITS GAZ NORMALISÉS (Npi ³ /m)(SCFM) | | 4189 | | 4332 | | 4323 | | | 4281 |

AEM / 4411
INCINERATOR
SVOC - PCDD/DF

| HORAIRE DES ESSAIS | | | | | | | | | |
|---|-------------|-----------------|------------|-----------------|--------------|-----------------|------------|-------------|-------------|
| ESSAI NUMÉRO | FACTEUR | PCDD/DF-1 | QUANTITÉ | PCDD/DF-2 | QUANTITÉ | PCDD/DF-3 | QUANTITÉ | MOYENNE | MOYENNE |
| DATE DE L'ESSAI | DE TOXICITÉ | <u>30/06/16</u> | PRÉLEVÉE, | <u>01/07/16</u> | PRÉLEVÉE, | <u>02/07/16</u> | PRÉLEVÉE, | (1 à 3) | (1 à 3) |
| DÉBUT DE L'ESSAI | | <u>13:00</u> | EN | <u>08:10</u> | EN | <u>13:00</u> | EN | ÉQUIVALENT | AVANT |
| FIN DE L'ESSAI | | <u>16:10</u> | ÉQUIVALENT | <u>11:15</u> | ÉQUIVALENT | <u>16:05</u> | ÉQUIVALENT | TOTAUX | CORRECTION |
| INFORMATIONS D'ÉCHANTILLONNAGE | | | | | | | | | |
| CONSTANTE DE L'ORIFICE DU COMPTEUR | | 0.772 | | 0.769 | | 0.787 | | | 0.776 |
| ISOCINÉTISME DE L'ESSAI | | 101 | | 102 | | 103 | | | 102 |
| VARIATION STANDARD | | 3.0 | | 64.2 | | 5.7 | | | 24.3 |
| NOMBRE DE POINTS <90% & >110% | | 0 | | 8 | | 0 | | | 3 |
| DÉBIT DE POMPAGE (pi ³ /min) | | 0.55 | | 0.57 | | 0.58 | | | 0.57 |
| DIOXINES ET FURANNES (pg) | | | | | | | | | |
| 2,3,7,8 - Tetra CDD | 1.0 | 1 | < LD | 6.5 | 6.5 | 1 | < LD | 2.8 | 2.8 |
| 1,2,3,7,8 - Penta CDD | 1.0 | 3.0 | < LD | 29.0 | 29 | 1.0 | < LD | 11.0 | 11.0 |
| 1,2,3,4,7,8 - Hexa CDD | 0.1 | 1.0 | < LD | 16.0 | 1.60 | 2.0 | < LD | 0.63 | 6.3 |
| 1,2,3,6,7,8 - Hexa CDD | 0.1 | 1.0 | < LD | 45.0 | 4.50 | 4.0 | 0.40 | 1.67 | 16.7 |
| 1,2,3,7,8,9 - Hexa CDD | 0.1 | 1.0 | < LD | 64.0 | 6.40 | 5.0 | 0.50 | 2.33 | 23.3 |
| 1,2,3,4,6,7,8 - Hepta CDD | 0.01 | 12.0 | 0.12 | 197.0 | 1.97 | 12.0 | 0.12 | 0.74 | 74 |
| Octachlorodibenzo-p-dioxine | 0.0001 | 34 | 0.0034 | 206 | 0.0206 | 19 | 0.0019 | 0.0086 | 86 |
| 2, 3, 7, 8 - Tetra CDF | 0.1 | 1 | < LD | 106.0 | 10.6 | 2 | 0.2 | 3.6 | 36 |
| 1,2,3,7,8 - Penta CDF | 0.05 | 4.0 | 0.2 | 71.0 | 3.55 | 2 | 0.10 | 1.28 | 26 |
| 2,3,4,7,8 - Penta CDF | 0.5 | 3.0 | 2 | 113.0 | 56.5 | 3 | 1.5 | 19.8 | 40 |
| 1,2,3,4,7,8 - Hexa CDF | 0.1 | 7.0 | 0.7 | 180.0 | 18 | 6 | 0.6 | 6.4 | 64 |
| 1,2,3,6,7,8 - Hexa CDF | 0.1 | 3.0 | 0.3 | 85.0 | 8.5 | 4.0 | 0.4 | 3.1 | 31 |
| 2,3,4,6,7,8 - Hexa CDF | 0.1 | 3 | 0.3 | 106.0 | 10.6 | 4 | 0.4 | 3.8 | 38 |
| 1,2,3,7,8,9 - Hexa CDF | 0.1 | 1 | 0.10 | 5.0 | 0.50 | 3 | < LD | 0.30 | 3.0 |
| 1,2,3,4,6,7,8 - Hepta CDF | 0.01 | 6.0 | 0.06 | 216 | 2.16 | 5 | 0.05 | 0.76 | 76 |
| 1,2,3,4,7,8,9 - Hepta CDF | 0.01 | 2.0 | < LD | 15 | 0.150 | 2.0 | < LD | 0.063 | 6.3 |
| Octachlorodibenzo furanne | 0.0001 | 5.0 | 0.00050 | 41 | 0.00410 | 8.0 | 0.00080 | 0.0018 | 18 |
| Total Tetra CDD | | 43 | | 689 | | 40 | | | 257 |
| Total Penta CDD | | 42 | | 650 | | 51 | | | 248 |
| Total Hexa CDD | | 57 | | 630 | | 50 | | | 246 |
| Total Hepta CDD | | 23 | | 433 | | 26 | | | 161 |
| Octachlorodibenzo-p-dioxines total | | 199 | | 2610 | | 186 | | | 998 |
| TOTAL DES CDD | | 364 | | 5012 | | 353 | | | 1910 |
| Total Tetra CDF | | 107 | | 3300 | | 120 | | | 1176 |
| Total Penta CDF | | 39 | | 1300 | | 28 | | | 456 |
| Total Hexa CDF | | 23 | | 666 | | 23 | | | 237 |
| Total Hepta CDF | | 9 | | 293 | | 12 | | | 105 |
| Octachlorodibenzo furannes total | | 183 | | 5590 | | 192 | | | 1988 |
| TOTAL DES CDF | | 361 | | 11149 | | 375 | | | 3962 |
| ÉQUIVALENCE TOXIQUE MAXIMALE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE TOTALE | | | 3.3 | | 160.6 | | 4.3 | 56.0 | |
| CONGÉNÈRES TOXIQUES TOTAUX | | 88 | | 1502 | | 83 | | | 558 |
| GROUPES HOMOLOGUES TOTAUX | | 725 | | 16161 | | 728 | | | 5871 |

AEM / 4411
INCINERATOR
SVOC - PCDD/DF

| HORAIRE DES ESSAIS | | | | | | | | | |
|--|-------------|-----------------|--------------|-----------------|---------------|-----------------|--------------|--------------|-------------|
| ESSAI NUMÉRO | FACTEUR | PCDD/DF-1 | QUANTITÉ | PCDD/DF-2 | QUANTITÉ | PCDD/DF-3 | QUANTITÉ | MOYENNE | MOYENNE |
| DATE DE L'ESSAI | DE TOXICITÉ | <u>30/06/16</u> | PRÉLEVÉE, | <u>01/07/16</u> | PRÉLEVÉE, | <u>02/07/16</u> | PRÉLEVÉE, | (1 à 3) | (1 à 3) |
| DÉBUT DE L'ESSAI | | <u>13:00</u> | EN | <u>08:10</u> | EN | <u>13:00</u> | EN | ÉQUIVALENT | AVANT |
| FIN DE L'ESSAI | | <u>16:10</u> | ÉQUIVALENT | <u>11:15</u> | ÉQUIVALENT | <u>16:05</u> | ÉQUIVALENT | TOTAUX | CORRECTION |
| DIOXINES ET FURANNES (ng/Nm ³) | | | | | | | | | |
| 2,3,7,8 - Tetra CDD | 1.0 | 0.00036 | < LD | 0.00222 | 0.00222 | 0.0003 | < LD | 0.0010 | 0.0010 |
| 1,2,3,7,8 - Penta CDD | 1.0 | 0.0011 | < LD | 0.0099 | 0.0099 | 0.0003 | < LD | 0.0038 | 0.0038 |
| 1,2,3,4,7,8 - Hexa CDD | 0.1 | 0.0004 | < LD | 0.00547 | 0.000547 | 0.0007 | < LD | 0.00022 | 0.0022 |
| 1,2,3,6,7,8 - Hexa CDD | 0.1 | 0.0004 | < LD | 0.0154 | 0.00154 | 0.0014 | 0.00014 | 0.00057 | 0.0057 |
| 1,2,3,7,8,9 - Hexa CDD | 0.1 | 0.0004 | < LD | 0.0219 | 0.00219 | 0.0017 | 0.00017 | 0.00080 | 0.0080 |
| 1,2,3,4,6,7,8 - Hepta CDD | 0.01 | 0.0043 | 0.000043 | 0.0673 | 0.000673 | 0.004 | 0.00004 | 0.00025 | 0.025 |
| Octachlorodibenzo-p-dioxine | 0.0001 | 0.0122 | 0.0000122 | 0.0704 | 0.00000704 | 0.006 | 0.0000006 | 0.0000030 | 0.030 |
| 2, 3, 7, 8 - Tetra CDF | 0.1 | 0.000 | < LD | 0.0362 | 0.00362 | 0.001 | 0.0001 | 0.0012 | 0.012 |
| 1,2,3,7,8 - Penta CDF | 0.05 | 0.0014 | 0.00007 | 0.0243 | 0.00121 | 0.001 | 0.0000 | 0.00044 | 0.009 |
| 2,3,4,7,8 - Penta CDF | 0.5 | 0.001 | 0.0005 | 0.0386 | 0.0193 | 0.001 | 0.001 | 0.007 | 0.014 |
| 1,2,3,4,7,8 - Hexa CDF | 0.1 | 0.0025 | 0.00025 | 0.0615 | 0.00615 | 0.002 | 0.0002 | 0.0022 | 0.022 |
| 1,2,3,6,7,8 - Hexa CDF | 0.1 | 0.0011 | 0.00011 | 0.0290 | 0.00290 | 0.001 | 0.0001 | 0.0010 | 0.010 |
| 2,3,4,6,7,8 - Hexa CDF | 0.1 | 0.0011 | 0.00011 | 0.0362 | 0.00362 | 0.001 | 0.0001 | 0.00129 | 0.0129 |
| 1,2,3,7,8,9 - Hexa CDF | 0.1 | 0.00036 | 0.000036 | 0.00171 | 0.000171 | 0.0010 | < LD | 0.00010 | 0.0010 |
| 1,2,3,4,6,7,8 - Hepta CDF | 0.01 | 0.0021 | 0.000021 | 0.0738 | 0.000738 | 0.002 | 0.00002 | 0.00026 | 0.026 |
| 1,2,3,4,7,8,9 - Hepta CDF | 0.01 | 0.00072 | < LD | 0.0051 | 0.000051 | 0.0007 | < LD | 0.000022 | 0.0022 |
| Octachlorodibenzo furanne | 0.0001 | 0.0018 | 0.00000018 | 0.0140 | 0.00000140 | 0.0027 | 0.00000027 | 0.00000062 | 0.0062 |
| Total Tetra CDD | | 0.015 | | 0.235 | | 0.01 | | | 0.088 |
| Total Penta CDD | | 0.015 | | 0.222 | | 0.02 | | | 0.085 |
| Total Hexa CDD | | 0.020 | | 0.215 | | 0.02 | | | 0.084 |
| Total Hepta CDD | | 0.0082 | | 0.148 | | 0.009 | | | 0.055 |
| Octachlorodibenzo-p-dioxines total | | 0.07 | | 0.89 | | 0.06 | | | 0.34 |
| TOTAL DES CDD | | 0.13 | | 1.71 | | 0.12 | | | 0.65 |
| Total Tetra CDF | | 0.04 | | 1.13 | | 0.04 | | | 0.40 |
| Total Penta CDF | | 0.01 | | 0.44 | | 0.01 | | | 0.16 |
| Total Hexa CDF | | 0.008 | | 0.228 | | 0.01 | | | 0.08 |
| Total Hepta CDF | | 0.0032 | | 0.100 | | 0.004 | | | 0.036 |
| Octachlorodibenzo furannes total | | 0.07 | | 1.91 | | 0.1 | | | 0.68 |
| TOTAL DES CDF | | 0.13 | | 3.81 | | 0.1 | | | 1.4 |
| ÉQUIVALENCE TOXIQUE MAXIMALE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE TOTALE | | | 0.001 | | 0.0548 | | 0.001 | 0.019 | |
| CONGÉNÈRES TOXIQUES TOTAUX | | 0.031 | | 0.513 | | 0.03 | | | 0.19 |
| GROUPES HOMOLOGUES TOTAUX | | 0.3 | | 5.52 | | 0.2 | | | 2.0 |

AEM / 4411
INCINERATOR
SVOC - PCDD/DF

| HORAIRE DES ESSAIS | | | | | | | | | |
|--|-------------|-----------------|--------------|-----------------|--------------|-----------------|--------------|--------------|-------------|
| ESSAI NUMÉRO | FACTEUR | PCDD/DF-1 | QUANTITÉ | PCDD/DF-2 | QUANTITÉ | PCDD/DF-3 | QUANTITÉ | MOYENNE | MOYENNE |
| DATE DE L'ESSAI | DE TOXICITÉ | <u>30/06/16</u> | PRÉLEVÉE, | <u>01/07/16</u> | PRÉLEVÉE, | <u>02/07/16</u> | PRÉLEVÉE, | (1 à 3) | (1 à 3) |
| DÉBUT DE L'ESSAI | | <u>13:00</u> | EN | <u>08:10</u> | EN | <u>13:00</u> | EN | ÉQUIVALENT | AVANT |
| FIN DE L'ESSAI | | <u>16:10</u> | ÉQUIVALENT | <u>11:15</u> | ÉQUIVALENT | <u>16:05</u> | ÉQUIVALENT | TOTAUX | CORRECTION |
| DIOXINES ET FURANNES (ng/Nm³) À 11 % D'OXYGÈNE | | | | | | | | | |
| 2,3,7,8 - Tetra CDD | 1.0 | 0.0008 | < LD | 0.004 | 0.004 | 0.0007 | < LD | 0.002 | 0.002 |
| 1,2,3,7,8 - Penta CDD | 1.0 | 0.002 | < LD | 0.0169 | 0.0169 | 0.001 | < LD | 0.007 | 0.007 |
| 1,2,3,4,7,8 - Hexa CDD | 0.1 | 0.001 | < LD | 0.0093 | 0.0009 | 0.0014 | < LD | 0.0004 | 0.0038 |
| 1,2,3,6,7,8 - Hexa CDD | 0.1 | 0.001 | < LD | 0.026 | 0.0026 | 0.003 | 0.0003 | 0.0010 | 0.010 |
| 1,2,3,7,8,9 - Hexa CDD | 0.1 | 0.001 | < LD | 0.0372 | 0.0037 | 0.003 | 0.0003 | 0.0014 | 0.014 |
| 1,2,3,4,6,7,8 - Hepta CDD | 0.01 | 0.01 | 0.0001 | 0.115 | 0.0011 | 0.008 | 0.0001 | 0.0004 | 0.04 |
| Octachlorodibenzo-p-dioxine | 0.0001 | 0.03 | 0.000003 | 0.12 | 0.000012 | 0.01 | 0.000001 | 0.000005 | 0.05 |
| 2, 3, 7, 8 - Tetra CDF | 0.1 | 0.00 | < LD | 0.062 | 0.0062 | 0.001 | 0.0001 | 0.002 | 0.02 |
| 1,2,3,7,8 - Penta CDF | 0.05 | 0.003 | 0.0002 | 0.041 | 0.0021 | 0.001 | 0.0001 | 0.0008 | 0.015 |
| 2,3,4,7,8 - Penta CDF | 0.5 | 0.00 | 0.001 | 0.066 | 0.033 | 0.002 | 0.001 | 0.012 | 0.023 |
| 1,2,3,4,7,8 - Hexa CDF | 0.1 | 0.006 | 0.0006 | 0.105 | 0.0105 | 0.004 | 0.0004 | 0.0038 | 0.038 |
| 1,2,3,6,7,8 - Hexa CDF | 0.1 | 0.002 | 0.0002 | 0.049 | 0.0049 | 0.003 | 0.0003 | 0.0018 | 0.018 |
| 2,3,4,6,7,8 - Hexa CDF | 0.1 | 0.002 | 0.0002 | 0.062 | 0.0062 | 0.003 | 0.0003 | 0.0022 | 0.022 |
| 1,2,3,7,8,9 - Hexa CDF | 0.1 | 0.0008 | 0.0001 | 0.0029 | 0.0003 | 0.0021 | < LD | 0.0002 | 0.0019 |
| 1,2,3,4,6,7,8 - Hepta CDF | 0.01 | 0.005 | 0.0000 | 0.126 | 0.00126 | 0.003 | 0.00003 | 0.00045 | 0.045 |
| 1,2,3,4,7,8,9 - Hepta CDF | 0.01 | 0.0016 | < LD | 0.0087 | 0.0001 | 0.0014 | < LD | 0.000039 | 0.0039 |
| Octachlorodibenzo furanne | 0.0001 | 0.004 | 0.0000004 | 0.024 | 0.0000024 | 0.006 | 0.0000 | 0.0000011 | 0.011 |
| Total Tetra CDD | | 0.03 | | 0.40 | | 0.03 | | | 0.15 |
| Total Penta CDD | | 0.03 | | 0.38 | | 0.04 | | | 0.15 |
| Total Hexa CDD | | 0.05 | | 0.37 | | 0.03 | | | 0.15 |
| Total Hepta CDD | | 0.02 | | 0.25 | | 0.02 | | | 0.10 |
| Octachlorodibenzo-p-dioxines total | | 0.16 | | 1.52 | | 0.13 | | | 0.60 |
| TOTAL DES CDD | | 0.30 | | 2.91 | | 0.24 | | | 1.15 |
| Total Tetra CDF | | 0.1 | | 1.9 | | 0.1 | | | 0.7 |
| Total Penta CDF | | 0.0 | | 0.76 | | 0.02 | | | 0.3 |
| Total Hexa CDF | | 0.02 | | 0.39 | | 0.02 | | | 0.14 |
| Total Hepta CDF | | 0.007 | | 0.170 | | 0.008 | | | 0.062 |
| Octachlorodibenzo furannes total | | 0.148 | | 3.251 | | 0.132 | | | 1.177 |
| TOTAL DES CDF | | 0.29 | | 6.48 | | 0.26 | | | 2.35 |
| ÉQUIVALENCE TOXIQUE MAXIMALE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE TOTALE | | | | | | | | | |
| | | | 0.003 | | 0.093 | | 0.003 | 0.033 | |
| NORME RAA Art. 104 / (ng/Nm³) à 11% | | | | | | | | | |
| CONGÉNÈRES TOXIQUES TOTAUX | | | | | | | | | |
| | | 0.07 | | 0.87 | | 0.06 | | | 0.33 |
| GROUPES HOMOLOGUES TOTAUX | | | | | | | | | |
| | | 0.6 | | 9.4 | | 0.5 | | | 3.5 |

AEM / 4411
INCINERATOR
SVOC - PCDD/DF

| HORAIRE DES ESSAIS | | | | | | | | | |
|-------------------------------------|-------------|-----------------|-------------|-----------------|-------------|-----------------|------------|------------|-------------|
| ESSAI NUMÉRO | FACTEUR | PCDD/DF-1 | QUANTITÉ | PCDD/DF-2 | QUANTITÉ | PCDD/DF-3 | QUANTITÉ | MOYENNE | MOYENNE |
| DATE DE L'ESSAI | DE TOXICITÉ | <u>30/06/16</u> | PRÉLEVÉE, | <u>01/07/16</u> | PRÉLEVÉE, | <u>02/07/16</u> | PRÉLEVÉE, | (1 à 3) | (1 à 3) |
| DÉBUT DE L'ESSAI | | <u>13:00</u> | EN | <u>08:10</u> | EN | <u>13:00</u> | EN | ÉQUIVALENT | AVANT |
| FIN DE L'ESSAI | | <u>16:10</u> | ÉQUIVALENT | <u>11:15</u> | ÉQUIVALENT | <u>16:05</u> | ÉQUIVALENT | TOTAUX | CORRECTION |
| DIOXINES ET FURANNES (µg/h) | | | | | | | | | |
| 2,3,7,8 - Tetra CDD | 1.0 | 0.003 | < LD | 0.016 | 0.016 | 0.002 | < LD | 0.007 | 0.007 |
| 1,2,3,7,8 - Penta CDD | 1.0 | 0.008 | < LD | 0.073 | 0.073 | 0.002 | 0.002 | 0.028 | 0.028 |
| 1,2,3,4,7,8 - Hexa CDD | 0.1 | 0.003 | < LD | 0.040 | 0.004 | 0.005 | 0.000 | 0.002 | 0.016 |
| 1,2,3,6,7,8 - Hexa CDD | 0.1 | 0.003 | 0.000 | 0.113 | 0.011 | 0.010 | 0.001 | 0.004 | 0.042 |
| 1,2,3,7,8,9 - Hexa CDD | 0.1 | 0.00 | 0.000 | 0.16 | 0.016 | 0.01 | 0.001 | 0.006 | 0.06 |
| 1,2,3,4,6,7,8 - Hepta CDD | 0.01 | 0.03 | < LD | 0.50 | 0.005 | 0.03 | 0.000 | 0.002 | 0.19 |
| Octachlorodibenzo-p-dioxine | 0.0001 | 0.09 | 0.00001 | 0.52 | 0.000 | 0.05 | 0.00000 | 0.00002 | 0.22 |
| 2, 3, 7, 8 - Tetra CDF | 0.1 | 0.00 | 0.000 | 0.27 | 0.027 | 0.00 | 0.000 | 0.009 | 0.09 |
| 1,2,3,7,8 - Penta CDF | 0.05 | 0.01 | 0.001 | 0.18 | 0.009 | 0.00 | 0.000 | 0.003 | 0.06 |
| 2,3,4,7,8 - Penta CDF | 0.5 | 0.01 | 0.004 | 0.28 | 0.142 | 0.01 | 0.004 | 0.050 | 0.10 |
| 1,2,3,4,7,8 - Hexa CDF | 0.1 | 0.02 | 0.002 | 0.45 | 0.045 | 0.01 | 0.001 | 0.016 | 0.16 |
| 1,2,3,6,7,8 - Hexa CDF | 0.1 | 0.01 | 0.001 | 0.21 | 0.021 | 0.01 | < LD | 0.008 | 0.08 |
| 2,3,4,6,7,8 - Hexa CDF | 0.1 | 0.01 | 0.001 | 0.27 | 0.027 | 0.01 | 0.001 | 0.009 | 0.09 |
| 1,2,3,7,8,9 - Hexa CDF | 0.1 | 0.00 | < LD | 0.01 | 0.001 | 0.01 | < LD | 0.001 | 0.01 |
| 1,2,3,4,6,7,8 - Hepta CDF | 0.01 | 0.02 | 0.000 | 0.54 | 0.005 | 0.01 | 0.000 | 0.002 | 0.19 |
| 1,2,3,4,7,8,9 - Hepta CDF | 0.01 | 0.01 | 0.0001 | 0.04 | 0.0004 | 0.00 | 0.0000 | 0.0002 | 0.02 |
| Octachlorodibenzo furanne | 0.0001 | 0.01 | 0.000001 | 0.10 | 0.000010 | 0.02 | 0.000002 | 0.000005 | 0.05 |
| Total Tetra CDD | | 0.1 | | 1.7 | | 0.1 | | | 0.6 |
| Total Penta CDD | | 0.1 | | 1.6 | | 0.1 | | | 0.6 |
| Total Hexa CDD | | 0.1 | | 1.6 | | 0.1 | | | 0.6 |
| Total Hepta CDD | | 0.1 | | 1.1 | | 0.1 | | | 0.4 |
| Octachlorodibenzo-p-dioxines total | | 0.5 | | 6.6 | | 0.5 | | | 2.5 |
| TOTAL DES CDD | | 0.9 | | 12.6 | | 0.9 | | | 4.8 |
| Total Tetra CDF | | 0.3 | | 8.3 | | 0.3 | | | 3.0 |
| Total Penta CDF | | 0.1 | | 3.3 | | 0.1 | | | 1.1 |
| Total Hexa CDF | | 0.1 | | 1.7 | | 0.1 | | | 0.6 |
| Total Hepta CDF | | 0.0 | | 0.7 | | 0.0 | | | 0.3 |
| Octachlorodibenzo furannes total | | 0.47 | | 14.06 | | 0.48 | | | 5.00 |
| TOTAL DES CDF | | 0.9 | | 28.0 | | 0.9 | | | 10.0 |
| ÉQUIVALENCE TOXIQUE MAXIMALE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE | | | | | | | | | |
| ÉQUIVALENCE TOXIQUE TOTALE | | | 0.01 | | 0.40 | | 0.0 | | 0.14 |
| CONGÉNÈRES TOXIQUES TOTAUX | | 0.2 | | 3.8 | | 0.2 | | | 1.4 |
| GROUPES HOMOLOGUES TOTAUX | | 1.8 | | 40.6 | | 1.8 | | | 14.8 |

N: Conditions de référence à 101.3 kPa et 25 °C, sur base sèche.

RELEVÉ D'ÉCHANTILLONNAGE: INCINERATOR - SVOC - PCDD/DF - ESSAI# PCDD/DF-1

| Trav. # | Point # | Durée de pompage (min) | Différence de pression ("H ₂ O) | | Températures (°F) | | | Volume de gaz (pi ³) | | | Vitesse (pi/s) | Iso. (%) | O ₂ (%) | CO ₂ (%) | CO (ppm) | Vacuum (po Hg) | Températures | | | | | |
|---------|---------|------------------------|--|------|-------------------|----------|----------|----------------------------------|--------|--------|----------------|----------|--------------------|---------------------|----------|----------------|--------------|-------------|------------|-------------|---------------|---------------|
| | | | ΔP | ΔH | Cheminé | Compteur | Compteur | Compteur | Début | Fin | | | | | | | Total | Trappe (°F) | Sonde (°F) | Filtre (°F) | Barb. (Glacé) | S.-Flex. (°F) |
| | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 5 | 0.09 | 1.04 | 801 | 73 | 73 | 73 | 69.73 | 72.75 | 3.02 | 24.56 | 99 | 16.0 | 2.9 | 6 | -4.0 | 43 | 250 | 250 | | |
| | 2 | 5 | 0.09 | 0.86 | 1055 | 78 | 73 | 73 | 72.75 | 75.56 | 2.81 | 26.92 | 100 | 16.1 | 3.1 | 6 | -4.0 | 43 | 250 | 250 | | |
| | 3 | 5 | 0.09 | 0.86 | 1063 | 82 | 74 | 74 | 75.56 | 78.37 | 2.81 | 26.99 | 100 | 16.1 | 3.1 | 6 | -4.0 | 43 | 250 | 250 | | |
| | 4 | 5 | 0.09 | 0.86 | 1057 | 83 | 74 | 74 | 78.37 | 81.16 | 2.79 | 26.94 | 99 | 16.0 | 3.2 | 8 | -4.0 | 43 | 250 | 250 | | |
| | 5 | 5 | 0.09 | 0.87 | 1058 | 83 | 75 | 75 | 81.16 | 83.97 | 2.81 | 26.95 | 100 | 15.9 | 3.3 | 8 | -4.0 | 43 | 250 | 250 | | |
| | 6 | 5 | 0.09 | 0.88 | 1028 | 84 | 75 | 75 | 83.97 | 86.78 | 2.81 | 26.68 | 99 | 15.9 | 3.2 | 6 | -4.0 | 47 | 250 | 250 | | |
| | 7 | 5 | 0.08 | 0.78 | 1044 | 84 | 76 | 76 | 86.78 | 89.46 | 2.68 | 25.29 | 100 | 16.0 | 3.1 | 4 | -5.0 | 47 | 250 | 250 | | |
| | 8 | 5 | 0.08 | 0.78 | 1050 | 84 | 76 | 76 | 89.46 | 92.13 | 2.67 | 25.34 | 100 | 16.0 | 3.2 | 3 | -5.0 | 48 | 250 | 250 | | |
| | 9 | 5 | 0.08 | 0.77 | 1065 | 85 | 76 | 76 | 92.13 | 94.81 | 2.68 | 25.46 | 101 | 16.0 | 3.1 | 6 | -5.0 | 48 | 250 | 250 | | |
| | 10 | 5 | 0.09 | 0.87 | 1056 | 85 | 77 | 77 | 94.81 | 97.62 | 2.81 | 26.93 | 99 | 16.0 | 3.2 | 4 | -5.0 | 47 | 250 | 250 | | |
| | 11 | 5 | 0.08 | 0.78 | 1052 | 85 | 77 | 77 | 97.62 | 100.42 | 2.80 | 25.36 | 105 | 15.9 | 3.2 | 4 | -5.0 | 47 | 250 | 250 | | |
| | 12 | 5 | 0.08 | 0.80 | 1005 | 85 | 77 | 77 | 100.42 | 103.14 | 2.72 | 24.96 | 100 | 15.9 | 3.4 | 6 | -5.0 | 47 | 250 | 250 | | |
| | 13 | 5 | 0.08 | 0.78 | 1049 | 84 | 77 | 77 | 103.14 | 105.84 | 2.70 | 25.33 | 101 | 15.8 | 3.5 | 6 | -5.0 | 48 | 250 | 250 | | |
| | 14 | 5 | 0.08 | 0.77 | 1055 | 85 | 77 | 77 | 105.84 | 108.51 | 2.67 | 25.38 | 100 | 15.8 | 3.4 | 5 | -5.0 | 50 | 250 | 250 | | |
| | 15 | 5 | 0.08 | 0.79 | 1018 | 84 | 77 | 77 | 108.51 | 111.18 | 2.67 | 25.07 | 99 | 15.7 | 3.3 | 5 | -5.0 | 50 | 250 | 250 | | |
| | 16 | 5 | 0.08 | 0.81 | 990 | 85 | 77 | 77 | 111.18 | 113.92 | 2.74 | 24.83 | 100 | 15.8 | 3.4 | 7 | -5.0 | 49 | 250 | 250 | | |
| | 17 | 5 | 0.08 | 0.79 | 1030 | 85 | 77 | 77 | 113.92 | 116.61 | 2.69 | 25.17 | 100 | 15.7 | 3.5 | 7 | -5.0 | 47 | 250 | 250 | | |
| | 18 | 5 | 0.07 | 0.69 | 1040 | 85 | 78 | 78 | 116.61 | 119.16 | 2.55 | 23.62 | 101 | 15.8 | 3.5 | 6 | -5.0 | 47 | 250 | 250 | | |
| 2 | 1 | 5 | 0.07 | 0.70 | 1003 | 81 | 78 | 78 | 119.22 | 121.67 | 2.45 | 23.33 | 97 | 16.0 | 3.1 | 6 | -5.0 | 45 | 250 | 250 | | |
| | 2 | 5 | 0.08 | 0.79 | 1025 | 85 | 78 | 78 | 121.67 | 124.40 | 2.73 | 25.13 | 101 | 15.9 | 3.4 | 6 | -5.0 | 54 | 250 | 250 | | |
| | 3 | 5 | 0.08 | 0.77 | 1070 | 86 | 79 | 79 | 124.40 | 127.11 | 2.71 | 25.51 | 102 | 16.1 | 3.2 | 5 | -5.0 | 50 | 250 | 250 | | |
| | 4 | 5 | 0.08 | 0.80 | 1008 | 86 | 79 | 79 | 127.11 | 129.86 | 2.75 | 24.98 | 101 | 15.8 | 3.4 | 7 | -5.0 | 49 | 250 | 250 | | |
| | 5 | 5 | 0.09 | 0.89 | 1025 | 87 | 79 | 79 | 129.86 | 132.78 | 2.92 | 26.65 | 102 | 16.1 | 3.2 | 4 | -5.0 | 46 | 250 | 250 | | |
| | 6 | 5 | 0.09 | 0.91 | 1000 | 87 | 79 | 79 | 132.78 | 135.63 | 2.85 | 26.43 | 98 | 15.8 | 3.3 | 7 | -5.0 | 50 | 250 | 250 | | |
| | 7 | 5 | 0.09 | 0.88 | 1040 | 87 | 80 | 80 | 135.63 | 138.55 | 2.92 | 26.79 | 102 | 16.1 | 3.3 | 5 | -5.0 | 50 | 250 | 250 | | |
| | 8 | 5 | 0.09 | 0.88 | 1045 | 87 | 80 | 80 | 138.55 | 141.48 | 2.93 | 26.83 | 103 | 16.1 | 3.2 | 4 | -5.0 | 50 | 250 | 250 | | |
| | 9 | 5 | 0.08 | 0.84 | 950 | 87 | 80 | 80 | 141.48 | 144.31 | 2.83 | 24.49 | 102 | 15.5 | 3.7 | 5 | -5.0 | 50 | 250 | 250 | | |
| | 10 | 5 | 0.08 | 0.85 | 920 | 88 | 80 | 80 | 144.31 | 147.13 | 2.82 | 24.22 | 100 | 15.5 | 3.8 | 6 | -5.0 | 50 | 250 | 250 | | |
| | 11 | 5 | 0.08 | 0.84 | 940 | 88 | 80 | 80 | 147.13 | 150.00 | 2.87 | 24.40 | 103 | 15.8 | 3.5 | 5 | -5.0 | 50 | 250 | 250 | | |
| | 12 | 5 | 0.08 | 0.84 | 945 | 88 | 80 | 80 | 150.00 | 152.82 | 2.82 | 24.44 | 101 | 15.8 | 3.5 | 5 | -5.0 | 50 | 250 | 250 | | |
| | 13 | 5 | 0.07 | 0.85 | 750 | 89 | 81 | 81 | 152.82 | 155.64 | 2.82 | 21.22 | 100 | 20.0 | 0.5 | 54 | -6.0 | 50 | 250 | 250 | | |
| | 14 | 5 | 0.07 | 0.97 | 605 | 89 | 81 | 81 | 155.64 | 158.62 | 2.98 | 19.91 | 99 | 20.0 | 0.5 | 37 | -6.0 | 50 | 250 | 250 | | |
| | 15 | 5 | 0.05 | 0.73 | 560 | 89 | 82 | 82 | 158.62 | 161.37 | 2.75 | 16.46 | 106 | 20.1 | 0.4 | 32 | -6.0 | 51 | 250 | 250 | | |
| | 16 | 5 | 0.05 | 0.74 | 545 | 88 | 82 | 82 | 161.37 | 164.05 | 2.68 | 16.34 | 103 | 20.3 | 0.5 | 10 | -6.0 | 51 | 250 | 250 | | |
| | 17 | 5 | 0.05 | 0.75 | 525 | 89 | 82 | 82 | 164.05 | 166.72 | 2.67 | 16.18 | 101 | 20.1 | 0.4 | 5 | -6.0 | 50 | 250 | 250 | | |
| | 18 | 5 | 0.05 | 0.75 | 525 | 89 | 82 | 82 | 166.72 | 169.40 | 2.68 | 16.18 | 101 | 20.2 | 0.4 | 5 | -6.0 | 50 | 250 | 250 | | |

RELEVÉ D'ÉCHANTILLONNAGE: INCINERATOR - SVOC - PCDD/DF - ESSAI# PCDD/DF-2

| Trav. # | Point # | Durée de pompage (min) | Différence de pression ("H ₂ O) | | Températures (°F) | | | Volume de gaz (pi ³) | | | Vitesse (pi/s) | Iso. (%) | O ₂ (%) | CO ₂ (%) | CO (ppm) | Vacuum (po Hg) | Températures | | | | | |
|---------|---------|------------------------|--|------|-------------------|-----------------|-----------------|----------------------------------|--------|--------|----------------|----------|--------------------|---------------------|----------|----------------|--------------|-------------|------------|-------------|---------------|---------------|
| | | | ΔP | ΔH | Cheminé | Compteur Entrée | Compteur Sortie | Compteur Sortie | Début | Fin | | | | | | | Total | Trappe (°F) | Sonde (°F) | Filtre (°F) | Barb. (Glacé) | S.-Flex. (°F) |
| | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 5 | 0.08 | 0.84 | 820 | 64 | 64 | 64 | 70.77 | 73.50 | 2.96 | 22.69 | 111 | 14.2 | 3.9 | 12 | -3.0 | 46 | 250 | 250 | | |
| | 2 | 5 | 0.08 | 0.83 | 840 | 73 | 64 | 64 | 73.50 | 76.23 | 3.00 | 22.87 | 112 | 14.1 | 4.5 | 9 | -3.0 | 46 | 250 | 250 | | |
| | 3 | 5 | 0.09 | 0.95 | 891 | 77 | 65 | 65 | 76.23 | 79.12 | 2.91 | 25.47 | 101 | 14.3 | 4.5 | 6 | -3.0 | 46 | 250 | 250 | | |
| | 4 | 5 | 0.09 | 0.93 | 931 | 79 | 65 | 65 | 79.12 | 82.06 | 2.94 | 25.84 | 103 | 14.6 | 4.2 | 6 | -4.0 | 47 | 250 | 250 | | |
| | 5 | 5 | 0.09 | 0.94 | 923 | 79 | 67 | 67 | 82.06 | 85.02 | 2.94 | 25.77 | 103 | 14.8 | 4.1 | 7 | -4.0 | 47 | 250 | 250 | | |
| | 6 | 5 | 0.09 | 0.93 | 934 | 79 | 68 | 68 | 85.02 | 87.97 | 2.91 | 25.87 | 102 | 14.7 | 4.1 | 8 | -4.0 | 45 | 250 | 250 | | |
| | 7 | 5 | 0.10 | 1.02 | 952 | 79 | 68 | 68 | 87.97 | 91.05 | 2.92 | 27.45 | 98 | 14.7 | 4.2 | 6 | -4.0 | 46 | 250 | 250 | | |
| | 8 | 5 | 0.10 | 1.03 | 935 | 80 | 68 | 68 | 91.05 | 94.12 | 3.12 | 27.28 | 104 | 14.6 | 4.4 | 4 | -4.0 | 46 | 250 | 250 | | |
| | 9 | 5 | 0.10 | 1.02 | 957 | 81 | 70 | 70 | 94.12 | 97.29 | 3.09 | 27.50 | 103 | 14.4 | 4.5 | 6 | -4.0 | 47 | 250 | 250 | | |
| | 10 | 5 | 0.10 | 1.00 | 986 | 81 | 70 | 70 | 97.29 | 100.48 | 3.08 | 27.78 | 104 | 14.3 | 4.6 | 5 | -4.0 | 47 | 250 | 250 | | |
| | 11 | 5 | 0.10 | 0.99 | 999 | 81 | 71 | 71 | 100.48 | 103.55 | 2.92 | 27.90 | 99 | 13.9 | 5.0 | 4 | -4.0 | 47 | 250 | 250 | | |
| | 12 | 5 | 0.10 | 1.00 | 983 | 81 | 71 | 71 | 103.55 | 106.63 | 2.59 | 27.75 | 87 | 13.8 | 5.0 | 5 | -4.0 | 47 | 250 | 250 | | |
| | 13 | 5 | 0.09 | 0.91 | 971 | 82 | 72 | 72 | 106.63 | 109.57 | 2.55 | 26.21 | 90 | 13.8 | 5.1 | 3 | -4.0 | 46 | 250 | 250 | | |
| | 14 | 5 | 0.09 | 0.93 | 952 | 83 | 72 | 72 | 109.57 | 112.46 | 2.27 | 26.04 | 80 | 13.9 | 5.1 | 4 | -4.0 | 46 | 250 | 250 | | |
| | 15 | 5 | 0.08 | 0.80 | 996 | 83 | 73 | 73 | 112.46 | 115.23 | 2.67 | 24.93 | 101 | 14.8 | 4.4 | 4 | -4.0 | 49 | 250 | 250 | | |
| | 16 | 5 | 0.07 | 0.70 | 990 | 83 | 73 | 73 | 115.23 | 117.83 | 2.70 | 23.27 | 109 | 14.2 | 4.8 | 4 | -4.0 | 48 | 250 | 250 | | |
| | 17 | 5 | 0.07 | 0.74 | 920 | 84 | 74 | 74 | 117.83 | 120.49 | 2.71 | 22.70 | 106 | 15.3 | 4.1 | 1 | -4.0 | 47 | 250 | 250 | | |
| | 18 | 5 | 0.07 | 0.74 | 927 | 84 | 74 | 74 | 120.49 | 123.17 | 2.69 | 22.76 | 106 | 14.6 | 4.5 | 7 | -4.0 | 47 | 250 | 250 | | |
| 2 | 1 | 5 | 0.07 | 0.74 | 920 | 78 | 75 | 75 | 123.24 | 125.91 | 2.95 | 22.70 | 116 | 16.6 | 3.4 | 4 | -5.0 | 46 | 250 | 250 | | |
| | 2 | 5 | 0.08 | 0.84 | 926 | 84 | 75 | 75 | 125.91 | 128.69 | 3.10 | 24.32 | 114 | 14.9 | 4.3 | 5 | -5.0 | 46 | 250 | 250 | | |
| | 3 | 5 | 0.09 | 0.94 | 944 | 85 | 75 | 75 | 128.69 | 131.72 | 3.00 | 25.97 | 104 | 15.4 | 4.0 | 5 | -5.0 | 47 | 250 | 250 | | |
| | 4 | 5 | 0.09 | 0.94 | 939 | 86 | 76 | 76 | 131.72 | 134.74 | 3.05 | 25.92 | 106 | 15.5 | 3.9 | 4 | -5.0 | 47 | 250 | 250 | | |
| | 5 | 5 | 0.09 | 0.92 | 980 | 86 | 77 | 77 | 134.74 | 137.74 | 3.25 | 26.30 | 114 | 15.6 | 3.9 | 5 | -5.0 | 48 | 250 | 250 | | |
| | 6 | 5 | 0.09 | 0.94 | 941 | 86 | 77 | 77 | 137.74 | 140.75 | 3.30 | 25.94 | 114 | 15.5 | 3.9 | 4 | -5.0 | 48 | 250 | 250 | | |
| | 7 | 5 | 0.10 | 1.06 | 925 | 85 | 77 | 77 | 140.75 | 143.91 | 3.20 | 27.18 | 105 | 15.7 | 3.7 | 3 | -5.0 | 48 | 250 | 250 | | |
| | 8 | 5 | 0.10 | 1.00 | 1000 | 85 | 76 | 76 | 143.91 | 147.11 | 3.16 | 27.91 | 106 | 15.3 | 4.0 | 4 | -5.0 | 46 | 250 | 250 | | |
| | 9 | 5 | 0.10 | 1.02 | 970 | 86 | 76 | 76 | 147.11 | 150.29 | 2.86 | 27.62 | 95 | 15.7 | 3.9 | 1 | -5.0 | 46 | 250 | 250 | | |
| | 10 | 5 | 0.10 | 1.03 | 969 | 86 | 78 | 78 | 150.29 | 153.52 | 2.85 | 27.61 | 95 | 15.8 | 3.8 | 3 | -5.0 | 46 | 250 | 250 | | |
| | 11 | 5 | 0.10 | 1.04 | 946 | 87 | 78 | 78 | 153.52 | 156.67 | 3.03 | 27.39 | 100 | 15.9 | 3.6 | 6 | -5.0 | 46 | 250 | 250 | | |
| | 12 | 5 | 0.10 | 1.02 | 978 | 86 | 78 | 78 | 156.67 | 159.86 | 2.98 | 27.70 | 99 | 15.1 | 4.3 | 4 | -5.0 | 46 | 250 | 250 | | |
| | 13 | 5 | 0.10 | 1.06 | 927 | 87 | 78 | 78 | 159.86 | 162.99 | 2.87 | 27.20 | 94 | 16.2 | 3.6 | 4 | -5.0 | 46 | 250 | 250 | | |
| | 14 | 5 | 0.09 | 0.95 | 927 | 87 | 79 | 79 | 162.99 | 166.14 | 2.66 | 25.81 | 91 | 16.5 | 3.3 | 2 | -5.0 | 46 | 250 | 250 | | |
| | 15 | 5 | 0.09 | 0.97 | 911 | 88 | 80 | 80 | 166.14 | 169.14 | 2.66 | 25.66 | 91 | 16.8 | 3.1 | 3 | -5.0 | 46 | 250 | 250 | | |
| | 16 | 5 | 0.07 | 0.74 | 925 | 88 | 80 | 80 | 169.14 | 171.86 | 2.62 | 22.74 | 102 | 16.7 | 3.0 | 3 | -5.0 | 46 | 250 | 250 | | |
| | 17 | 5 | 0.06 | 0.63 | 935 | 88 | 80 | 80 | 171.86 | 174.37 | 2.56 | 21.13 | 108 | 16.2 | 3.7 | 5 | -5.0 | 48 | 250 | 250 | | |
| | 18 | 5 | 0.06 | 0.64 | 924 | 89 | 80 | 80 | 174.37 | 176.91 | 2.55 | 21.05 | 107 | 16.3 | 3.3 | 6 | -5.0 | 48 | 250 | 250 | | |

RELEVÉ D'ÉCHANTILLONNAGE: INCINERATOR - SVOC - PCDD/DF - ESSAI# PCDD/DF-3

| Trav. # | Point # | Durée de pompage (min) | Différence de pression ("H ₂ O) | | Températures (°F) | | | Volume de gaz (pi ³) | | | Vitesse (pi/s) | Iso. (%) | O ₂ (%) | CO ₂ (%) | CO (ppm) | Vacuum (po Hg) | Températures | | | | | |
|---------|---------|------------------------|--|------|-------------------|-----------------|-----------------|----------------------------------|--------|--------|----------------|----------|--------------------|---------------------|----------|----------------|--------------|-------------|------------|-------------|---------------|---------------|
| | | | ΔP | ΔH | Cheminé | Compteur Entrée | Compteur Sortie | Compteur Sortie | Début | Fin | | | | | | | Total | Trappe (°F) | Sonde (°F) | Filtre (°F) | Barb. (Glace) | S.-Flex. (°F) |
| | | | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 5 | 0.08 | 0.75 | 1011 | 79 | 79 | 79 | 84.81 | 87.51 | 2.70 | 24.26 | 103 | 16.2 | 2.4 | 7 | -3.0 | 54 | 250 | 250 | | |
| | 2 | 5 | 0.09 | 0.89 | 1030 | 80 | 79 | 79 | 87.51 | 90.42 | 2.91 | 26.67 | 102 | 15.7 | 3.5 | 12 | -3.0 | 50 | 250 | 250 | | |
| | 3 | 5 | 0.09 | 0.88 | 1040 | 85 | 80 | 80 | 90.42 | 93.28 | 2.86 | 26.76 | 100 | 15.7 | 3.6 | 10 | -3.0 | 41 | 250 | 250 | | |
| | 4 | 5 | 0.09 | 0.88 | 1048 | 91 | 81 | 81 | 93.28 | 96.13 | 2.85 | 26.83 | 100 | 15.7 | 3.5 | 9 | -3.0 | 41 | 250 | 250 | | |
| | 5 | 5 | 0.09 | 0.90 | 1025 | 91 | 82 | 82 | 96.13 | 99.06 | 2.93 | 26.62 | 101 | 15.9 | 3.4 | 9 | -3.0 | 43 | 250 | 250 | | |
| | 6 | 5 | 0.09 | 0.89 | 1030 | 91 | 82 | 82 | 99.06 | 101.99 | 2.93 | 26.67 | 102 | 15.9 | 3.3 | 8 | -3.0 | 43 | 250 | 250 | | |
| | 7 | 5 | 0.09 | 0.89 | 1031 | 92 | 82 | 82 | 101.99 | 104.93 | 2.94 | 26.68 | 102 | 16.0 | 3.3 | 7 | -3.0 | 43 | 250 | 250 | | |
| | 8 | 5 | 0.10 | 0.99 | 1031 | 92 | 82 | 82 | 104.93 | 107.98 | 3.05 | 28.12 | 100 | 16.0 | 3.3 | 8 | -3.0 | 43 | 250 | 250 | | |
| | 9 | 5 | 0.10 | 0.99 | 1046 | 92 | 84 | 84 | 107.98 | 111.04 | 3.06 | 28.26 | 101 | 16.1 | 3.2 | 9 | -3.0 | 44 | 250 | 250 | | |
| | 10 | 5 | 0.10 | 1.00 | 1022 | 92 | 84 | 84 | 111.04 | 114.14 | 3.10 | 28.04 | 101 | 16.0 | 3.2 | 9 | -4.0 | 43 | 250 | 250 | | |
| | 11 | 5 | 0.09 | 0.90 | 1022 | 93 | 84 | 84 | 114.14 | 117.19 | 3.05 | 26.60 | 105 | 16.2 | 3.2 | 8 | -4.0 | 43 | 250 | 250 | | |
| | 12 | 5 | 0.09 | 0.88 | 1053 | 93 | 84 | 84 | 117.19 | 120.08 | 2.89 | 26.87 | 101 | 16.0 | 3.4 | 11 | -4.0 | 43 | 250 | 250 | | |
| | 13 | 5 | 0.09 | 0.88 | 1053 | 93 | 85 | 85 | 120.08 | 122.94 | 2.86 | 26.87 | 100 | 15.9 | 3.3 | 7 | -4.0 | 43 | 250 | 250 | | |
| | 14 | 5 | 0.08 | 0.79 | 1045 | 93 | 85 | 85 | 122.94 | 125.86 | 2.92 | 25.27 | 107 | 16.0 | 3.4 | 9 | -4.0 | 43 | 250 | 250 | | |
| | 15 | 5 | 0.08 | 0.79 | 1055 | 93 | 86 | 86 | 125.86 | 128.61 | 2.75 | 25.35 | 101 | 15.9 | 3.5 | 8 | -4.0 | 43 | 250 | 250 | | |
| | 16 | 5 | 0.08 | 0.79 | 1048 | 93 | 86 | 86 | 128.61 | 131.36 | 2.75 | 25.30 | 101 | 16.0 | 3.3 | 13 | -4.0 | 43 | 250 | 250 | | |
| | 17 | 5 | 0.07 | 0.70 | 1041 | 93 | 86 | 86 | 131.36 | 133.96 | 2.60 | 23.61 | 102 | 16.0 | 3.4 | 7 | -4.0 | 42 | 250 | 250 | | |
| | 18 | 5 | 0.07 | 0.69 | 1043 | 93 | 86 | 86 | 133.96 | 136.53 | 2.57 | 23.62 | 101 | 16.0 | 3.4 | 8 | -4.0 | 42 | 250 | 250 | | |
| 2 | 1 | 5 | 0.08 | 0.80 | 1030 | 90 | 87 | 87 | 136.61 | 139.35 | 2.74 | 25.14 | 100 | 16.1 | 3.2 | 11 | -4.0 | 43 | 250 | 250 | | |
| | 2 | 5 | 0.08 | 0.81 | 1013 | 93 | 87 | 87 | 139.35 | 142.10 | 2.75 | 25.00 | 100 | 15.9 | 3.5 | 7 | -4.0 | 44 | 250 | 250 | | |
| | 3 | 5 | 0.08 | 0.82 | 1004 | 94 | 87 | 87 | 142.10 | 144.89 | 2.79 | 24.92 | 101 | 15.9 | 3.4 | 8 | -4.0 | 44 | 250 | 250 | | |
| | 4 | 5 | 0.08 | 0.80 | 1032 | 94 | 87 | 87 | 144.89 | 147.72 | 2.83 | 25.16 | 103 | 15.9 | 3.5 | 12 | -4.0 | 43 | 250 | 250 | | |
| | 5 | 5 | 0.08 | 0.81 | 1014 | 95 | 87 | 87 | 147.72 | 150.53 | 2.81 | 25.01 | 102 | 16.0 | 3.4 | 9 | -4.0 | 43 | 250 | 250 | | |
| | 6 | 5 | 0.09 | 0.90 | 1039 | 95 | 88 | 88 | 150.53 | 153.46 | 2.93 | 26.75 | 101 | 16.0 | 3.4 | 8 | -4.0 | 43 | 250 | 250 | | |
| | 7 | 5 | 0.09 | 0.92 | 1002 | 95 | 88 | 88 | 153.46 | 156.42 | 2.96 | 26.42 | 101 | 16.2 | 3.3 | 7 | -4.0 | 43 | 250 | 250 | | |
| | 8 | 5 | 0.09 | 0.91 | 1022 | 94 | 87 | 87 | 156.42 | 159.37 | 2.95 | 26.60 | 101 | 16.2 | 3.3 | 8 | -4.0 | 39 | 250 | 250 | | |
| | 9 | 5 | 0.09 | 0.90 | 1035 | 94 | 87 | 87 | 159.37 | 162.33 | 2.96 | 26.71 | 102 | 16.2 | 3.3 | 10 | -4.0 | 39 | 250 | 250 | | |
| | 10 | 5 | 0.10 | 1.00 | 1031 | 94 | 87 | 87 | 162.33 | 165.51 | 3.18 | 28.12 | 104 | 16.2 | 3.2 | 8 | -4.0 | 39 | 250 | 250 | | |
| | 11 | 5 | 0.10 | 1.00 | 1040 | 94 | 87 | 87 | 165.51 | 168.76 | 3.25 | 28.21 | 106 | 16.3 | 3.2 | 8 | -4.0 | 39 | 250 | 250 | | |
| | 12 | 5 | 0.10 | 1.03 | 994 | 93 | 87 | 87 | 168.76 | 172.02 | 3.26 | 27.77 | 105 | 16.5 | 3.1 | 8 | -4.0 | 38 | 250 | 250 | | |
| | 13 | 5 | 0.10 | 1.04 | 979 | 93 | 87 | 87 | 172.02 | 175.30 | 3.28 | 27.63 | 105 | 16.5 | 3.1 | 8 | -4.0 | 38 | 250 | 250 | | |
| | 14 | 5 | 0.10 | 1.01 | 1017 | 92 | 86 | 86 | 175.30 | 178.51 | 3.21 | 27.99 | 105 | 16.4 | 3.1 | 11 | -4.0 | 39 | 250 | 250 | | |
| | 15 | 5 | 0.10 | 1.01 | 1021 | 92 | 86 | 86 | 178.51 | 181.76 | 3.25 | 28.03 | 106 | 16.5 | 3.0 | 7 | -4.0 | 39 | 250 | 250 | | |
| | 16 | 5 | 0.09 | 0.91 | 1015 | 92 | 86 | 86 | 181.76 | 184.85 | 3.09 | 26.53 | 106 | 16.2 | 3.2 | 10 | -4.0 | 39 | 250 | 250 | | |
| | 17 | 5 | 0.09 | 0.90 | 1023 | 92 | 86 | 86 | 184.85 | 187.92 | 3.07 | 26.61 | 106 | 16.2 | 3.2 | 10 | -4.0 | 39 | 250 | 250 | | |
| | 18 | 5 | 0.09 | 0.90 | 1023 | 92 | 86 | 86 | 187.92 | 191.07 | 3.15 | 26.61 | 108 | 16.3 | 3.0 | 7 | -4.0 | 39 | 250 | 250 | | |

AEM
4411
INCINÉRATEUR
ME

| HORAIRE DES ESSAIS | | | | |
|--|-----------------|-----------------|-----------------|--------------|
| ESSAI NUMÉRO | ME-1 | ME-2 | ME-3 | MOYENNE |
| DATE DE L'ESSAI | <u>01/07/16</u> | <u>02/07/16</u> | <u>03/07/16</u> | (1 à 3) |
| DÉBUT DE L'ESSAI | <u>13:00</u> | <u>08:10</u> | <u>08:30</u> | |
| FIN DE L'ESSAI | <u>16:05</u> | <u>11:15</u> | <u>11:40</u> | |
| DURÉE DE L'ESSAI (minutes) | 180 | 180 | 180 | |
| NOMBRE DE POINTS | 36 | 36 | 36 | |
| DONNÉES DES ÉQUIPEMENTS D'ÉCHANTILLONNAGE | | | | |
| PRESSION BAROMÉTRIQUE ("Hg) | <u>29.96</u> | <u>30.00</u> | <u>30.01</u> | 29.99 |
| PRESSION STATIQUE ("H ₂ O) | <u>-0.14</u> | <u>-0.14</u> | <u>-0.14</u> | -0.14 |
| COEFFICIENT DU COMPTEUR (1,1,1) | <u>0.995</u> | <u>0.995</u> | <u>0.995</u> | 0.995 |
| COEFFICIENT DU PITOT (03-06-Q,03-06-Q,03-06-Q) | <u>0.793</u> | <u>0.793</u> | <u>0.793</u> | 0.793 |
| DIAMÈTRE DE LA BUSE (po) (3Q-371,3Q-371,3Q-371) | <u>0.4358</u> | <u>0.4358</u> | <u>0.4358</u> | 0.436 |
| TEMPÉRATURE COMPTEUR (°F) | 92 | 75 | 70 | 79 |
| TEMPÉRATURE COMPTEUR (°C) | 33 | 24 | 21 | 26 |
| HUMIDITÉ DES GAZ & VOLUME ÉCHANTILLONNÉ | | | | |
| VOLUME D'EAU (g) | <u>108.9</u> | <u>119.7</u> | <u>121.3</u> | 116.6 |
| VOLUME D'EAU (pi ³) | 5.23 | 5.75 | 5.82 | 5.60 |
| HUMIDITÉ GAZ (BWO) | 0.048 | 0.054 | 0.055 | 0.052 |
| HUMIDITÉ GAZ (%) | 4.8 | 5.4 | 5.5 | 5.2 |
| VOLUME GAZ RÉFÉRENCE (pi ³) | 103.41 | 101.24 | 100.11 | 101.59 |
| VOLUME GAZ RÉFÉRENCE (m³) | 2.928 | 2.867 | 2.835 | 2.877 |
| CARACTÉRISTIQUES DU CONDUIT | | | | |
| DIAMÈTRES AVANT LES TROUS D'ÉCHANTILLONNAGE | <u>8.0</u> | <u>8.0</u> | <u>8.0</u> | 5.0 |
| DIAMÈTRES APRÈS LES TROUS D'ÉCHANTILLONNAGE | <u>2.0</u> | <u>2.0</u> | <u>2.0</u> | 2.0 |
| DIAMÈTRE DU CONDUIT (pi) | <u>3.17</u> | <u>3.17</u> | <u>3.17</u> | 3.17 |
| DIAMÈTRE DU CONDUIT (m) | 0.965 | 0.965 | 0.965 | 0.965 |
| LONGUEUR DU CONDUIT (pi) | <u>0.0</u> | <u>0.0</u> | <u>0.0</u> | 0.0 |
| LARGEUR DU CONDUIT (pi) | <u>0.0</u> | <u>0.0</u> | <u>0.0</u> | 0.0 |
| PRESSION CONDUIT ("Hg) | 29.95 | 29.99 | 30.00 | 29.98 |
| PRESSION COMPTEUR ("Hg) | 30.03 | 30.06 | 30.07 | 30.05 |
| SURFACE DU CONDUIT (pi ²) | 7.9 | 7.9 | 7.9 | 7.9 |
| SURFACE DU CONDUIT (m ²) | 0.73 | 0.73 | 0.73 | 0.73 |
| CARACTÉRISTIQUES DES GAZ | | | | |
| TEMPÉRATURE CHEMINÉE (°F) | 1009 | 937 | 986 | 977 |
| TEMPÉRATURE CHEMINÉE (°C) | 543 | 503 | 530 | 525 |
| CO ₂ (%) | 3.3 | 3.7 | 4.1 | 3.7 |
| O ₂ (%) | 16.0 | 15.4 | 14.7 | 15.4 |
| CO (ppm) | 4 | 3 | 5 | 4 |
| N ₂ (%) | 79.7 | 79.9 | 80.2 | 80.0 |
| Ar (%) | 0.95 | 0.96 | 0.96 | 1.0 |
| POIDS MOLÉCULAIRE SEC | 29.28 | 29.33 | 29.36 | 29.32 |
| POIDS MOLÉCULAIRE HUMIDE | 28.74 | 28.72 | 28.74 | 28.73 |
| VITESSE DES GAZ (pi/s) | 26.4 | 24.5 | 25.0 | 25.3 |
| VITESSE DES GAZ (m/s) | 8.0 | 7.5 | 7.6 | 7.7 |
| DÉBITS GAZ ACTUELS (pi ³ /h) | 747 669 | 695 958 | 708 079 | 717 235 |
| DÉBITS GAZ ACTUELS (m ³ /h) | 21 172 | 19 707 | 20 051 | 20 310 |
| DÉBITS GAZ ACTUELS (pi ³ /m)(ACFM) | 12 461 | 11 599 | 11 801 | 11 954 |
| DÉBITS GAZ NORMALISÉS (Npi ³ /h) | 260 475 | 253 831 | 249 091 | 254 466 |
| DÉBITS GAZ NORMALISÉS (Nm³/h) | 7 376 | 7 188 | 7 053 | 7 206 |
| DÉBITS GAZ NORMALISÉS (Npi ³ /m)(SCFM) | 4 341 | 4 231 | 4 152 | 4 241 |

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| HORAIRE DES ESSAIS | | | | |
|--|-----------------|-----------------|-----------------|--------------|
| ESSAI NUMÉRO | ME-1 | ME-2 | ME-3 | MOYENNE |
| DATE DE L'ESSAI | <u>01/07/16</u> | <u>02/07/16</u> | <u>03/07/16</u> | (1 à 3) |
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| FIN DE L'ESSAI | <u>16:05</u> | <u>11:15</u> | <u>11:40</u> | |
| INFORMATIONS D'ÉCHANTILLONNAGE | | | | |
| CONSTANTE DE L'ORIFICE DU COMPTEUR | 0.769 | 0.770 | 0.773 | 0.771 |
| ISOCINÉTISME DE L'ESSAI | 101 | 101 | 102 | 101 |
| VARIATION STANDARD | 1.9 | 3.0 | 3.1 | 2.7 |
| NOMBRE DE POINTS <90% & >110% | 0 | 0 | 0 | 0 |
| DÉBIT DE POMPAGE (pi ³ /min) | 0.57 | 0.56 | 0.56 | 0.56 |
| PARTICULES | | | | |
| POIDS PARTICULES FILTRE (mg) | <u>42.7</u> | <u>41.5</u> | <u>89.0</u> | 57.73 |
| POIDS PARTICULES BLANC FILTRE (mg) | <u>0.4</u> | <u>0.4</u> | <u>0.4</u> | 0.40 |
| POIDS PARTICULES FILTRE (mg) | 42.7 | 41.5 | 89.0 | 57.73 |
| POIDS PARTICULES SONDE (mg) | <u>18.9</u> | <u>13.6</u> | <u>28.1</u> | 20.2 |
| POIDS PARTICULES BLANC SONDE (mg) | <u>< 1.0</u> | <u>< 1.0</u> | <u>< 1.0</u> | < 1.0 |
| POIDS PARTICULES SONDE (mg) | 18.9 | 13.6 | 28.1 | 20.2 |
| POIDS PARTICULES TOTALES (mg) | 61.6 | 55.1 | 117.1 | 77.9 |
| PARTICULES TOTALES (mg/Nm ³) | 21.04 | 19.22 | 41.31 | 27.19 |
| PARTICULES TOTALES (mg/Nm³) à 11 % O₂ | 42.5 | 34.8 | 65.89 | 47.7 |
| NORME, art 104 du RAA Q-2, R.4.1 (mg/Nm³) à 11 % O₂ | | 50 | | |
| PARTICULES TOTALES (kg/h) | 0.15517 | 0.13815 | 0.29136 | 0.19489 |
| PARTICULES TOTALES (g/s) | 0.043102 | 0.038375 | 0.080934 | 0.054137 |
| ACIDE CHLORHYDRIQUE (HCl) | | | | |
| BLANC HCl (mg) | < 0.41 | < 0.41 | < 0.41 | 0.410 |
| CHLORURES (mg) | 28.06 | 29.16 | 27.46 | 28.23 |
| HCl (mg) | 28.9 | 30.0 | 28.2 | 29.0 |
| HCl (mg/Nm ³) | 9.86 | 10.46 | 9.96 | 10.09 |
| HCl (mg/Nm³) à 11 % O₂ | 19.91 | 18.94 | 15.89 | 18.24 |
| NORME, art 104 du RAA Q-2, R.4.1 (mg/Nm³) à 11 % O₂ | | 100 | | |
| HCl (ppm) | 6.61 | 7.01 | 6.68 | 6.77 |
| HCl (kg/h) | 0.07269 | 0.07519 | 0.07026 | 0.07271 |
| HCl (g/s) | 0.020191 | 0.020885 | 0.019518 | 0.020198 |
| MÉTAUX PARTICULAIRES (µg) | | | | |
| Aluminium (Al) | 71 | 56 | 112 | 79.67 |
| Antimoine (Sb) | 38.1 | 20 | 31.3 | 29.80 |
| Argent (Ag) | 1.5 | 1 | 1.1 | 1.20 |
| Arsenic (As) | 2.2 | 1.2 | 1.5 | 1.63 |
| Baryum (Ba) | 1.9 | 1.49 | 2.48 | 1.96 |
| Béryllium (Be) | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Bismuth (Bi) | 1.36 | 1.09 | 0.85 | 1.10 |
| Bore (B) | 17.4 | 22.9 | 50.9 | 30.40 |
| Cadmium (Cd) | 2.8 | 1.32 | 1.61 | 1.91 |
| Calcium (Ca) | 16000 | 11100 | 30000 | 19033.33 |
| Chrome (Cr) | 23 | 14.7 | 16.8 | 18.17 |
| Cobalt (Co) | < 0.10 | 0.8 | 0.1 | 0.33 |
| Cuivre (Cu) | 47.2 | 45.8 | 78.8 | 57.27 |
| Étain (Sn) | 117 | 78.5 | 98 | 97.83 |
| Fer (Fe) | 140 | 183 | 159 | 160.67 |
| Lithium (Li) | 21 | 11 | 16 | 16.00 |
| Magnésium (Mg) | 120 | 86 | 195 | 133.67 |
| Manganèse (Mn) | 4.1 | 3.8 | 4.1 | 4.00 |
| Mercure (Hg) | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Molybdène (Mo) | 60.8 | 67.8 | 47.4 | 58.67 |
| Nickel (Ni) | 1.5 | 118 | 2.7 | 40.73 |
| Plomb (Pb) | 59.4 | 52.7 | 50.7 | 54.27 |
| Potassium (K) | 7680 | 5740 | 7450 | 6956.67 |
| Sélénium (Se) | 0.9 | 1.8 | 1.7 | 1.47 |
| Silicium (Si) | 555 | 320 | 588 | 487.67 |
| Sodium (Na) | 4460 | 3130 | 4000 | 3863.33 |
| Strontium (Sr) | 6.7 | 5.2 | 12.7 | 8.20 |
| Thallium (Tl) | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| Titane (Ti) | 4 | 4 | 7 | 5.00 |
| Vanadium (V) | 0.8 | 0.5 | 0.9 | 0.73 |
| Zinc (Zn) | 2310 | 3110 | < 9050.0 | 4823.33 |
| MÉTAUX DÉTECTÉS | 31558 | 24043 | 39392 | 31664 |
| MÉTAUX TOTAUX | 31748 | 24179 | 51981 | 35969 |

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| HORAIRE DES ESSAIS | | | | |
|---------------------------|-----------------|-----------------|-----------------|--------------|
| ESSAI NUMÉRO | ME-1 | ME-2 | ME-3 | MOYENNE |
| DATE DE L'ESSAI | <u>01/07/16</u> | <u>02/07/16</u> | <u>03/07/16</u> | (1 à 3) |
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| FIN DE L'ESSAI | <u>16:05</u> | <u>11:15</u> | <u>11:40</u> | |
| MÉTAUX GAZEUX (µg) | | | | |
| Aluminium (Al) | 8 | 8 | 5 | 7 |
| Antimoine (Sb) | < 0.6 | < 0.5 | < 0.5 | < 0.5 |
| Argent (Ag) | < 3.0 | < 3.0 | < 3.0 | < 3.0 |
| Arsenic (As) | 3.9 | < 0.5 | < 0.5 | < 1.6 |
| Baryum (Ba) | < 0.30 | < 0.30 | < 0.30 | < 0.30 |
| Béryllium (Be) | < 0.30 | < 0.30 | < 0.30 | < 0.30 |
| Bismuth (Bi) | < 0.30 | < 0.30 | < 0.30 | < 0.30 |
| Bore (B) | 17.6 | 18.0 | 30.8 | 22.1 |
| Cadmium (Cd) | < 0.3 | < 0.3 | < 0.3 | < 0.3 |
| Calcium (Ca) | < 30.0 | < 30.0 | < 30.0 | < 30.0 |
| Chrome (Cr) | 147.0 | 0.7 | < 0.50 | 49.4 |
| Cobalt (Co) | < 0.60 | < 0.50 | < 0.50 | < 0.53 |
| Cuivre (Cu) | 0.9 | 1.6 | 0.6 | 1.0 |
| Etain (Sn) | 23.0 | 16.0 | 16.0 | 18.3 |
| Fer (Fe) | 287.0 | < 30.00 | < 30.00 | 115.7 |
| Lithium (Li) | < 6.00 | < 5.00 | < 5.00 | < 5.33 |
| Magnésium (Mg) | 45.0 | < 10.00 | < 10.00 | 21.7 |
| Manganèse (Mn) | 3.9 | 0.7 | < 0.50 | 1.7 |
| Mercure (Hg) | < 0.61 | < 0.61 | < 0.61 | < 0.61 |
| Molybdène (Mo) | < 3.00 | < 3.00 | < 3.00 | < 3.00 |
| Nickel (Ni) | 1.2 | < 0.60 | < 0.50 | 0.8 |
| Plomb (Pb) | < 3.00 | < 3.00 | < 3.00 | < 3.00 |
| Potassium (K) | 5400.0 | < 50.00 | 94.0 | 1848.0 |
| Sélénium (Se) | < 0.60 | < 0.50 | < 0.50 | < 0.53 |
| Silicium (Si) | 47.0 | 41.0 | 42.0 | 43.3 |
| Sodium (Na) | 496.0 | 66.0 | 329.0 | 297.0 |
| Strontium (Sr) | < 0.60 | < 0.50 | < 0.50 | < 0.53 |
| Thallium (Tl) | < 0.60 | < 0.50 | < 0.50 | < 0.53 |
| Titane (Ti) | 100.0 | < 5.00 | < 5.00 | 36.7 |
| Vanadium (V) | 12.0 | < 1.00 | < 1.00 | 4.7 |
| Zinc (Zn) | 22.3 | 11.1 | 4.4 | 12.6 |
| MÉTAUX DÉTECTÉS | 6535 | 288 | 571 | 2465 |
| MÉTAUX TOTAUX | 6665 | 309 | 618 | 2530 |
| MÉTAUX TOTAUX (µg) | | | | |
| Aluminium (Al) | 79.00 | 64.00 | 117.00 | 86.67 |
| Antimoine (Sb) | 38.70 | 20.50 | 31.80 | 30.33 |
| Argent (Ag) | 4.50 | 4.00 | 4.10 | 4.20 |
| Arsenic (As) | 6.10 | 1.70 | 2.00 | 3.27 |
| Baryum (Ba) | 2.20 | 1.79 | 2.78 | 2.26 |
| Béryllium (Be) | < 0.35 | < 0.35 | < 0.35 | < 0.35 |
| Bismuth (Bi) | 1.66 | 1.39 | 1.15 | 1.40 |
| Bore (B) | 35.00 | 40.90 | 81.70 | 52.53 |
| Cadmium (Cd) | 3.10 | 1.62 | 1.91 | 2.21 |
| Calcium (Ca) | 16030.00 | 11130.00 | 30030.00 | 19063.33 |
| Chrome (Cr) | 170.00 | 15.40 | 17.30 | 67.57 |
| Cobalt (Co) | < 0.70 | 1.30 | 0.60 | 0.87 |
| Cuivre (Cu) | 48.10 | 47.40 | 79.40 | 58.30 |
| Etain (Sn) | 140.00 | 94.50 | 114.00 | 116.17 |
| Fer (Fe) | 427.00 | 213.00 | 189.00 | 276.33 |
| Lithium (Li) | 27.00 | 16.00 | 21.00 | 21.33 |
| Magnésium (Mg) | 165.00 | 96.00 | 205.00 | 155.33 |
| Manganèse (Mn) | 8.00 | 4.50 | 4.60 | 5.70 |
| Mercure (Hg) | < 0.66 | < 0.66 | < 0.66 | < 0.66 |
| Molybdène (Mo) | 63.80 | 70.80 | 50.40 | 61.67 |
| Nickel (Ni) | 2.70 | 118.60 | 3.20 | 41.50 |
| Plomb (Pb) | 62.40 | 55.70 | 53.70 | 57.27 |
| Potassium (K) | 13080.00 | 5790.00 | 7544.00 | 8804.67 |
| Sélénium (Se) | 1.50 | 2.30 | 2.20 | 2.00 |
| Silicium (Si) | 602.00 | 361.00 | 630.00 | 531.00 |
| Sodium (Na) | 4956.00 | 3196.00 | 4329.00 | 4160.33 |
| Strontium (Sr) | 7.30 | 5.70 | 13.20 | 8.73 |
| Thallium (Tl) | < 0.70 | < 0.60 | < 0.60 | < 0.63 |
| Titane (Ti) | 104.00 | 9.00 | 12.00 | 41.67 |
| Vanadium (V) | 12.80 | 1.50 | 1.90 | 5.40 |
| Zinc (Zn) | 2332.30 | 3121.10 | 9054.40 | 4835.93 |
| MÉTAUX DÉTECTÉS | 38328 | 24418 | 14160 | 25636 |
| MÉTAUX TOTAUX | 38413 | 24487 | 52599 | 38500 |

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| HORAIRE DES ESSAIS | | | | |
|---|-----------------|-----------------|-----------------|--------------|
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| DATE DE L'ESSAI | <u>01/07/16</u> | <u>02/07/16</u> | <u>03/07/16</u> | (1 à 3) |
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| FIN DE L'ESSAI | <u>16:05</u> | <u>11:15</u> | <u>11:40</u> | |
| MÉTAUX PARTICULAIRE (µg/Nm ³) | | | | |
| Aluminium (Al) | 24.25 | 19.53 | 39.51 | 27.76 |
| Antimoine (Sb) | 13.01 | 6.98 | 11.04 | 10.34 |
| Argent (Ag) | 0.51 | 0.35 | 0.39 | 0.42 |
| Arsenic (As) | 0.75 | 0.42 | 0.53 | 0.57 |
| Baryum (Ba) | 0.65 | 0.52 | 0.87 | 0.68 |
| Béryllium (Be) | < 0.02 | < 0.02 | < 0.02 | < 0.02 |
| Bismuth (Bi) | 0.46 | 0.38 | 0.30 | 0.38 |
| Bore (B) | 5.94 | 7.99 | 17.96 | 10.63 |
| Cadmium (Cd) | 0.96 | 0.46 | 0.57 | 0.66 |
| Calcium (Ca) | 5464.27 | 3871.95 | 10582.61 | 6639.61 |
| Chrome (Cr) | 7.85 | 5.13 | 5.93 | 6.30 |
| Cobalt (Co) | < 0.03 | 0.28 | 0.04 | 0.12 |
| Cuivre (Cu) | 16.12 | 15.98 | 27.80 | 19.96 |
| Etain (Sn) | 39.96 | 27.38 | 34.57 | 33.97 |
| Fer (Fe) | 47.81 | 63.83 | 56.09 | 55.91 |
| Lithium (Li) | 7.17 | 3.84 | 5.64 | 5.55 |
| Magnésium (Mg) | 40.98 | 30.00 | 68.79 | 46.59 |
| Manganèse (Mn) | 1.40 | 1.33 | 1.45 | 1.39 |
| Mercure (Hg) | < 0.02 | < 0.02 | < 0.02 | < 0.02 |
| Molybdène (Mo) | 20.76 | 23.65 | 16.72 | 20.38 |
| Nickel (Ni) | 0.51 | 41.16 | 0.95 | 14.21 |
| Plomb (Pb) | 20.29 | 18.38 | 17.88 | 18.85 |
| Potassium (K) | 2622.85 | 2002.25 | 2628.02 | 2417.71 |
| Sélénium (Se) | 0.31 | 0.63 | 0.60 | 0.51 |
| Silicium (Si) | 189.54 | 111.62 | 207.42 | 169.53 |
| Sodium (Na) | 1523.16 | 1091.82 | 1411.02 | 1342.00 |
| Strontium (Sr) | 2.29 | 1.81 | 4.48 | 2.86 |
| Thallium (Tl) | < 0.03 | < 0.03 | < 0.04 | < 0.03 |
| Titane (Ti) | 1.37 | 1.40 | 2.47 | 1.74 |
| Vanadium (V) | 0.27 | 0.17 | 0.32 | 0.26 |
| Zinc (Zn) | 788.90 | 1084.84 | 3192.42 | 1688.72 |
| MÉTAUX DÉTECTÉS | 10818 | 8414 | 18296 | 12509 |
| MÉTAUX TOTAUX | 10842 | 8434 | 18336 | 12538 |

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| HORAIRE DES ESSAIS | | | | |
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| MÉTAUX GAZEUX (µg/Nm³) | | | | |
| Aluminium (Al) | 2.73 | 2.79 | 1.76 | 2.43 |
| Antimoine (Sb) | < 0.20 | < 0.17 | < 0.18 | < 0.19 |
| Argent (Ag) | < 1.02 | < 1.05 | < 1.06 | < 1.04 |
| Arsenic (As) | 1.33 | 0.17 | 0.18 | 0.56 |
| Baryum (Ba) | < 0.10 | < 0.10 | < 0.11 | < 0.10 |
| Béryllium (Be) | < 0.10 | < 0.10 | < 0.11 | < 0.10 |
| Bismuth (Bi) | < 0.10 | < 0.10 | < 0.11 | < 0.10 |
| Bore (B) | 6.01 | 6.28 | 10.86 | 7.72 |
| Cadmium (Cd) | < 0.10 | < 0.10 | < 0.11 | < 0.10 |
| Calcium (Ca) | < 10.25 | < 10.46 | < 10.58 | < 10.43 |
| Chrome (Cr) | 50.20 | 0.24 | < 0.18 | 16.87 |
| Cobalt (Co) | < 0.20 | < 0.17 | < 0.18 | < 0.19 |
| Cuivre (Cu) | 0.31 | 0.56 | 0.21 | 0.36 |
| Etain (Sn) | 7.85 | 5.58 | 5.64 | 6.36 |
| Fer (Fe) | 98.02 | < 10.46 | < 10.58 | 39.69 |
| Lithium (Li) | 2.05 | 1.74 | 1.76 | 1.85 |
| Magnésium (Mg) | 15.37 | < 3.49 | < 3.53 | 7.46 |
| Manganèse (Mn) | 1.33 | 0.24 | < 0.18 | 0.58 |
| Mercuré (Hg) | < 0.21 | < 0.21 | < 0.22 | < 0.21 |
| Molybdène (Mo) | < 1.02 | < 1.05 | < 1.06 | < 1.04 |
| Nickel (Ni) | < 0.41 | < 0.21 | < 0.18 | < 0.27 |
| Plomb (Pb) | < 1.02 | < 1.05 | < 1.06 | < 1.04 |
| Potassium (K) | 1844.19 | < 17.44 | 33.16 | 631.60 |
| Sélénium (Se) | < 0.20 | < 0.17 | < 0.18 | < 0.19 |
| Silicium (Si) | 16.05 | 14.30 | 14.82 | 15.06 |
| Sodium (Na) | 169.39 | 23.02 | 116.06 | 102.82 |
| Strontium (Sr) | < 0.20 | < 0.17 | < 0.18 | < 0.19 |
| Thallium (Tl) | < 0.20 | < 0.17 | < 0.18 | < 0.19 |
| Titane (Ti) | 34.15 | < 1.74 | < 1.76 | 12.55 |
| Vanadium (V) | 4.10 | < 0.35 | < 0.35 | 1.60 |
| Zinc (Zn) | 7.62 | 3.87 | 1.55 | 4.35 |
| MÉTAUX DÉTECTÉS | 194.3 | 42.4 | 133.5 | 123.4 |
| MÉTAUX TOTAUX | 2276 | 108 | 218 | 867 |
| MÉTAUX TOTAUX (µg/Nm³) | | | | |
| Aluminium (Al) | 26.98 | 22.32 | 41.27 | 30.19 |
| Antimoine (Sb) | 13.22 | 7.15 | 11.22 | 10.53 |
| Argent (Ag) | 1.54 | 1.40 | 1.45 | 1.46 |
| Arsenic (As) | 2.08 | 0.59 | 0.71 | 1.13 |
| Baryum (Ba) | 0.75 | 0.62 | 0.98 | 0.79 |
| Béryllium (Be) | < 0.12 | < 0.12 | < 0.12 | < 0.12 |
| Bismuth (Bi) | 0.57 | 0.48 | 0.41 | 0.49 |
| Bore (B) | 11.95 | 14.27 | 28.82 | 18.35 |
| Cadmium (Cd) | 1.06 | 0.57 | 0.67 | 0.77 |
| Calcium (Ca) | 5474.51 | 3882.42 | 10593.20 | 6650.04 |
| Chrome (Cr) | 58.06 | 5.37 | 6.10 | 23.18 |
| Cobalt (Co) | < 0.24 | 0.45 | 0.21 | 0.30 |
| Cuivre (Cu) | 16.43 | 16.53 | 28.01 | 20.32 |
| Etain (Sn) | 47.81 | 32.96 | 40.21 | 40.33 |
| Fer (Fe) | 145.83 | 74.30 | 66.67 | 95.60 |
| Lithium (Li) | 9.22 | 5.58 | 7.41 | 7.40 |
| Magnésium (Mg) | 56.35 | 33.49 | 72.31 | 54.05 |
| Manganèse (Mn) | 2.73 | 1.57 | 1.62 | 1.97 |
| Mercuré (Hg) | < 0.23 | < 0.23 | < 0.23 | < 0.23 |
| Molybdène (Mo) | 21.79 | 24.70 | 17.78 | 21.42 |
| Nickel (Ni) | 0.92 | 41.37 | 1.13 | 14.47 |
| Plomb (Pb) | 21.31 | 19.43 | 18.94 | 19.89 |
| Potassium (K) | 4467.04 | 2019.69 | 2661.17 | 3049.30 |
| Sélénium (Se) | 0.51 | 0.80 | 0.78 | 0.70 |
| Silicium (Si) | 205.59 | 125.93 | 222.23 | 184.58 |
| Sodium (Na) | 1692.56 | 1114.84 | 1527.07 | 1444.82 |
| Strontium (Sr) | 2.49 | 1.99 | 4.66 | 3.05 |
| Thallium (Tl) | < 0.24 | < 0.21 | < 0.21 | < 0.22 |
| Titane (Ti) | 35.52 | 3.14 | 4.23 | 14.30 |
| Vanadium (V) | 4.37 | 0.52 | 0.67 | 1.85 |
| Zinc (Zn) | 796.52 | 1088.72 | 3193.97 | 1693.07 |
| MÉTAUX DÉTECTÉS | 5790 | 4042 | 10809 | 6880 |
| MÉTAUX TOTAUX | 5867 | 4099 | 10900 | 6955 |

AEM
4411
INCINÉRATEUR
ME

| HORAIRE DES ESSAIS | | | | |
|---------------------------|-----------------|-----------------|-----------------|---------------|
| ESSAI NUMÉRO | ME-1 | ME-2 | ME-3 | MOYENNE |
| DATE DE L'ESSAI | <u>01/07/16</u> | <u>02/07/16</u> | <u>03/07/16</u> | (1 à 3) |
| DÉBUT DE L'ESSAI | <u>13:00</u> | <u>08:10</u> | <u>08:30</u> | |
| FIN DE L'ESSAI | <u>16:05</u> | <u>11:15</u> | <u>11:40</u> | |
| MÉTAUX PARTICULAIRE (g/h) | | | | |
| Aluminium (Al) | 0.178847 | 0.140406 | 0.278672 | 0.199308 |
| Antimoine (Sb) | 0.095973 | 0.050145 | 0.077879 | 0.074666 |
| Argent (Ag) | 0.003778 | 0.002507 | 0.002737 | 0.003008 |
| Arsenic (As) | 0.005542 | 0.003009 | 0.003732 | 0.004094 |
| Baryum (Ba) | 0.004786 | 0.003736 | 0.006171 | 0.004897 |
| Béryllium (Be) | < 0.00 | < 0.00 | < 0.00 | < 0.00 |
| Bismuth (Bi) | 0.003426 | 0.002733 | 0.002115 | 0.002758 |
| Bore (B) | 0.043830 | 0.057416 | 0.126646 | 0.075964 |
| Cadmium (Cd) | 0.007053 | 0.003310 | 0.004006 | 0.004790 |
| Calcium (Ca) | 40.303550 | 27.830402 | 74.644287 | 47.592746 |
| Chrome (Cr) | 0.057936 | 0.036856 | 0.041801 | 0.045531 |
| Cobalt (Co) | < 0.00 | 0.002006 | 0.000249 | 0.000836 |
| Cuivre (Cu) | 0.118895 | 0.114832 | 0.196066 | 0.143264 |
| Etain (Sn) | 0.294720 | 0.196819 | 0.243838 | 0.245125 |
| Fer (Fe) | 0.352656 | 0.458826 | 0.395615 | 0.402365 |
| Lithium (Li) | 0.052898 | 0.027580 | 0.039810 | 0.040096 |
| Magnésium (Mg) | 0.302277 | 0.215623 | 0.485188 | 0.334362 |
| Manganèse (Mn) | 0.010328 | 0.009528 | 0.010201 | 0.010019 |
| Mercure (Hg) | < 0.00 | < 0.00 | < 0.00 | < 0.00 |
| Molybdène (Mo) | 0.153153 | 0.169991 | 0.117938 | 0.147028 |
| Nickel (Ni) | 0.003778 | 0.295855 | 0.006718 | 0.102117 |
| Plomb (Pb) | 0.149627 | 0.132132 | 0.126149 | 0.135969 |
| Potassium (K) | 19.345704 | 14.391577 | 18.536665 | 17.424649 |
| Sélénium (Se) | 0.002267 | 0.004513 | 0.004230 | 0.003670 |
| Silicium (Si) | 1.398029 | 0.802318 | 1.463028 | 1.221125 |
| Sodium (Na) | 11.234615 | 7.847672 | 9.952572 | 9.678286 |
| Strontium (Sr) | 0.016877 | 0.013038 | 0.031599 | 0.020505 |
| Thallium (Tl) | < 0.00 | < 0.00 | < 0.00 | < 0.00 |
| Titane (Ti) | 0.010076 | 0.010029 | 0.017417 | 0.012507 |
| Vanadium (V) | 0.002015 | 0.001254 | 0.002239 | 0.001836 |
| Zinc (Zn) | 5.818825 | 7.797527 | 22.517693 | 12.044682 |
| MÉTAUX DÉTECTÉS | 41.349 | 28.806 | 75.9797 | 48.712 |
| MÉTAUX TOTAUX | 41.827 | 29.146 | 76.5489 | 49.174 |
| MÉTAUX GAZEUX (g/h) | | | | |
| Aluminium (Al) | 0.02015 | 0.02006 | 0.01244 | 0.01755 |
| Antimoine (Sb) | < 0.0015 | < 0.0013 | < 0.0012 | < 0.0013 |
| Argent (Ag) | < 0.0076 | < 0.0075 | < 0.0075 | < 0.0075 |
| Arsenic (As) | 0.00982 | 0.00125 | 0.00124 | 0.00411 |
| Baryum (Ba) | < 0.0008 | < 0.0008 | < 0.0007 | < 0.0008 |
| Béryllium (Be) | < 0.0008 | < 0.0008 | < 0.0007 | < 0.0008 |
| Bismuth (Bi) | < 0.0008 | < 0.0008 | < 0.0007 | < 0.0008 |
| Bore (B) | 0.04433 | 0.04513 | 0.07663 | 0.05537 |
| Cadmium (Cd) | < 0.0008 | < 0.0008 | < 0.0007 | < 0.0008 |
| Calcium (Ca) | < 0.0756 | < 0.0752 | < 0.0746 | < 0.0751 |
| Chrome (Cr) | 0.37029 | 0.00176 | 0.00124 | 0.12443 |
| Cobalt (Co) | < 0.0015 | < 0.0013 | < 0.0012 | < 0.0013 |
| Cuivre (Cu) | 0.00227 | 0.00401 | 0.00149 | 0.00259 |
| Etain (Sn) | 0.05794 | 0.04012 | 0.03981 | 0.04595 |
| Fer (Fe) | 0.72294 | 0.07522 | 0.07464 | 0.29094 |
| Lithium (Li) | 0.01511 | 0.01254 | 0.01244 | 0.01336 |
| Magnésium (Mg) | 0.11335 | < 0.0251 | < 0.0249 | 0.05444 |
| Manganèse (Mn) | 0.00982 | 0.00176 | 0.00124 | 0.00427 |
| Mercure (Hg) | < 0.0015 | < 0.0015 | < 0.0015 | < 0.0015 |
| Molybdène (Mo) | < 0.0076 | < 0.0075 | < 0.0075 | < 0.0075 |
| Nickel (Ni) | < 0.0030 | < 0.0015 | < 0.0012 | < 0.0019 |
| Plomb (Pb) | < 0.0076 | < 0.0075 | < 0.0075 | < 0.0075 |
| Potassium (K) | 13.60245 | 0.12536 | 0.23389 | 4.65390 |
| Sélénium (Se) | < 0.0015 | < 0.0013 | < 0.0012 | < 0.0013 |
| Silicium (Si) | 0.11839 | 0.10280 | 0.10450 | 0.10856 |
| Sodium (Na) | 1.24941 | 0.16548 | 0.81860 | 0.74450 |
| Strontium (Sr) | < 0.0015 | < 0.0013 | < 0.0012 | < 0.0013 |
| Thallium (Tl) | < 0.0015 | < 0.0013 | < 0.0012 | < 0.0013 |
| Titane (Ti) | 0.25190 | < 0.0125 | < 0.0124 | 0.09229 |
| Vanadium (V) | 0.03023 | < 0.0025 | < 0.0025 | 0.01174 |
| Zinc (Zn) | 0.05617 | 0.02783 | 0.01095 | 0.03165 |
| MÉTAUX DÉTECTÉS | 0.6051 | 0.1484 | 0.1040 | 0.2858 |
| MÉTAUX TOTAUX | 1.4454 | 0.3134 | 0.3324 | 0.6971 |

AEM
4411
INCINÉRATEUR
ME

| HORAIRE DES ESSAIS | | | | |
|--|-----------------|-----------------|-----------------|---------------|
| ESSAI NUMÉRO | ME-1 | ME-2 | ME-3 | MOYENNE |
| DATE DE L'ESSAI | <u>01/07/16</u> | <u>02/07/16</u> | <u>03/07/16</u> | (1 à 3) |
| DÉBUT DE L'ESSAI | <u>13:00</u> | <u>08:10</u> | <u>08:30</u> | |
| FIN DE L'ESSAI | <u>16:05</u> | <u>11:15</u> | <u>11:40</u> | |
| MÉTAUX TOTAUX (g/h) | | | | |
| Aluminium (Al) | 0.19900 | 0.16046 | 0.29111 | 0.21686 |
| Antimoine (Sb) | 0.09748 | 0.05140 | 0.07912 | 0.07600 |
| Argent (Ag) | 0.01134 | 0.01003 | 0.01020 | 0.01052 |
| Arsenic (As) | 0.01537 | 0.00426 | 0.00498 | 0.00820 |
| Baryum (Ba) | 0.00554 | 0.00449 | 0.00692 | 0.00565 |
| Béryllium (Be) | < 0.0009 | < 0.0009 | < 0.0009 | < 0.0009 |
| Bismuth (Bi) | 0.00418 | 0.00349 | 0.00286 | 0.00351 |
| Bore (B) | 0.08816 | 0.10255 | 0.20328 | 0.13133 |
| Cadmium (Cd) | 0.00781 | 0.00406 | 0.00475 | 0.00554 |
| Calcium (Ca) | 40.37912 | 27.90562 | 74.71893 | 47.66789 |
| Chrome (Cr) | 0.42823 | 0.03861 | 0.04304 | 0.16996 |
| Cobalt (Co) | < 0.0018 | 0.00326 | 0.00149 | 0.00217 |
| Cuivre (Cu) | 0.12116 | 0.11884 | 0.19756 | 0.14585 |
| Etain (Sn) | 0.35266 | 0.23693 | 0.28365 | 0.29108 |
| Fer (Fe) | 1.07560 | 0.53404 | 0.47026 | 0.69330 |
| Lithium (Li) | 0.06801 | 0.04012 | 0.05225 | 0.05346 |
| Magnésium (Mg) | 0.41563 | 0.24070 | 0.51007 | 0.38880 |
| Manganèse (Mn) | 0.02015 | 0.01128 | 0.01145 | 0.01429 |
| Mercure (Hg) | < 0.0017 | < 0.0017 | < 0.0016 | < 0.0017 |
| Molybdène (Mo) | 0.16071 | 0.17751 | 0.12540 | 0.15454 |
| Nickel (Ni) | 0.00680 | 0.29736 | 0.00796 | 0.10404 |
| Plomb (Pb) | 0.15718 | 0.13965 | 0.13361 | 0.14348 |
| Potassium (K) | 32.94815 | 14.51694 | 18.77055 | 22.07855 |
| Sélénium (Se) | 0.00378 | 0.00577 | 0.00547 | 0.00501 |
| Silicium (Si) | 1.51642 | 0.90511 | 1.56753 | 1.32969 |
| Sodium (Na) | 12.48402 | 8.01315 | 10.77117 | 10.42278 |
| Strontium (Sr) | 0.01839 | 0.01429 | 0.03284 | 0.02184 |
| Thallium (Tl) | < 0.0018 | < 0.0015 | < 0.0015 | < 0.0016 |
| Titane (Ti) | 0.26197 | 0.02257 | 0.02986 | 0.10480 |
| Vanadium (V) | 0.03224 | 0.00376 | 0.00473 | 0.01358 |
| Zinc (Zn) | 5.87500 | 7.82536 | 22.52864 | 12.07633 |
| MÉTAUX DÉTECTÉS | 42.708 | 29.051 | 76.239 | 49.333 |
| MÉTAUX TOTAUX | 43.272 | 29.460 | 76.881 | 49.871 |
| MÉTAUX TOTAUX (µg/Nm3) À 11 % DE O2 | | | | |
| Aluminium (Al) | 53.94 | 44.64 | 82.52 | 60.37 |
| Antimoine (Sb) | 26.43 | 14.30 | 22.43 | 21.05 |
| Argent (Ag) | 3.07 | 2.79 | 2.89 | 2.92 |
| Arsenic (As) | 4.17 | 1.19 | 1.41 | 2.25 |
| Baryum (Ba) | 1.50 | 1.25 | 1.96 | 1.57 |
| Béryllium (Be) | < 0.24 | < 0.24 | < 0.25 | < 0.24 |
| Bismuth (Bi) | 1.13 | 0.97 | 0.81 | 0.97 |
| Bore (B) | 23.90 | 28.53 | 57.62 | 36.68 |
| Cadmium (Cd) | 2.12 | 1.13 | 1.35 | 1.53 |
| Calcium (Ca) | 10945.99 | 7762.68 | 21180.51 | 13296.39 |
| Chrome (Cr) | 116.08 | 10.74 | 12.20 | 46.34 |
| Cobalt (Co) | < 0.48 | 0.91 | 0.42 | 0.60 |
| Cuivre (Cu) | 32.84 | 33.06 | 56.00 | 40.64 |
| Etain (Sn) | 95.60 | 65.91 | 80.41 | 80.64 |
| Fer (Fe) | 291.57 | 148.56 | 133.30 | 191.15 |
| Lithium (Li) | 18.44 | 11.16 | 14.81 | 14.80 |
| Magnésium (Mg) | 112.67 | 66.96 | 144.59 | 108.07 |
| Manganèse (Mn) | 5.46 | 3.14 | 3.24 | 3.95 |
| Mercure (Hg) | < 0.45 | < 0.46 | < 0.47 | < 0.46 |
| Molybdène (Mo) | 43.57 | 49.38 | 35.55 | 42.83 |
| Nickel (Ni) | 1.84 | 82.72 | 2.26 | 28.94 |
| Plomb (Pb) | 42.61 | 38.85 | 37.88 | 39.78 |
| Potassium (K) | 8931.60 | 4038.27 | 5320.87 | 6096.91 |
| Sélénium (Se) | 1.02 | 1.60 | 1.55 | 1.39 |
| Silicium (Si) | 411.07 | 251.78 | 444.35 | 369.07 |
| Sodium (Na) | 3384.17 | 2229.07 | 3053.29 | 2888.85 |
| Strontium (Sr) | 4.98 | 3.98 | 9.31 | 6.09 |
| Thallium (Tl) | < 0.48 | < 0.42 | < 0.42 | < 0.44 |
| Titane (Ti) | 71.02 | 6.28 | 8.46 | 28.59 |
| Vanadium (V) | 8.74 | 1.05 | 1.34 | 3.71 |
| Zinc (Zn) | 1592.60 | 2176.83 | 6386.17 | 3385.20 |
| MÉTAUX DÉTECTÉS | 11577 | 8081 | 21611 | 13757 |
| MÉTAUX TOTAUX | 11730 | 8195 | 21793 | 13906 |

N: Conditions de référence à 101.3 kPa et 25 °C, sur base sèche.

RELEVÉ D'ÉCHANTILLONNAGE: INCINÉRATEUR - ME - ESSAI# ME-1

| Trav. # | Point # | Durée de pompage (minutes) | Différence de pression "H ₂ O | | Températures °F | | | | Volume de gaz (litres ou pi ³) | | | Vitesse p/s | Iso. % | O ₂ % | CO ₂ % | CO ppm | Vacuum po Hg | Sonde (°F) | Filtre (°F) | Barb. (Glacé) |
|---------|---------|----------------------------|--|------|-----------------|-----------------|-----------------|-----------------|--|--------|-------|-------------|--------|------------------|-------------------|--------|--------------|------------|-------------|---------------|
| | | | ΔP | ΔH | Cheminée | Compteur Entrée | Compteur Sortie | Compteur Sortie | Début | Fin | Total | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 5 | 0.09 | 0.98 | 940 | 85 | 85 | 85 | 77.05 | 80.05 | 3.00 | 25.89 | 100.4 | 16.2 | 2.6 | 5 | -3.0 | 250 | 250 | 32 |
| | 2 | 5 | 0.10 | 1.04 | 996 | 92 | 84 | 84 | 80.05 | 83.12 | 3.07 | 27.83 | 98.9 | 15.9 | 3.1 | 5 | -3.0 | 250 | 250 | 32 |
| | 3 | 5 | 0.10 | 1.03 | 1016 | 93 | 85 | 85 | 83.12 | 86.11 | 2.99 | 28.02 | 96.8 | 16.0 | 3.3 | 3 | -3.0 | 250 | 250 | 32 |
| | 4 | 5 | 0.10 | 1.04 | 1003 | 94 | 85 | 85 | 86.11 | 89.24 | 3.13 | 27.90 | 100.8 | 16.0 | 3.3 | 4 | -3.0 | 250 | 250 | 32 |
| | 5 | 5 | 0.10 | 1.03 | 1015 | 95 | 85 | 85 | 89.24 | 92.32 | 3.08 | 28.01 | 99.5 | 15.9 | 3.3 | 4 | -3.0 | 250 | 250 | 35 |
| | 6 | 5 | 0.09 | 0.94 | 991 | 95 | 86 | 86 | 92.32 | 95.37 | 3.05 | 26.36 | 102.9 | 15.9 | 3.4 | 5 | -3.0 | 250 | 250 | 35 |
| | 7 | 5 | 0.09 | 0.96 | 973 | 95 | 86 | 86 | 95.37 | 98.42 | 3.05 | 26.19 | 102.3 | 16.1 | 3.2 | 6 | -3.0 | 250 | 250 | 35 |
| | 8 | 5 | 0.09 | 0.95 | 983 | 96 | 86 | 86 | 98.42 | 101.42 | 3.00 | 26.28 | 100.8 | 16.0 | 3.2 | 7 | -3.0 | 250 | 250 | 35 |
| | 9 | 5 | 0.09 | 0.94 | 1003 | 97 | 86 | 86 | 101.42 | 104.39 | 2.97 | 26.47 | 100.4 | 16.0 | 3.2 | 3 | -3.0 | 250 | 250 | 35 |
| | 10 | 5 | 0.09 | 0.90 | 1071 | 97 | 87 | 87 | 104.39 | 107.37 | 2.98 | 27.07 | 103.0 | 15.9 | 3.4 | 3 | -3.0 | 250 | 250 | 38 |
| | 11 | 5 | 0.09 | 0.91 | 1046 | 97 | 87 | 87 | 107.37 | 110.30 | 2.93 | 26.85 | 100.4 | 15.7 | 3.4 | 4 | -3.0 | 250 | 250 | 40 |
| | 12 | 5 | 0.08 | 0.79 | 1075 | 98 | 87 | 87 | 110.30 | 113.05 | 2.75 | 25.56 | 100.8 | 15.5 | 3.7 | 5 | -3.0 | 250 | 250 | 32 |
| | 13 | 5 | 0.08 | 0.80 | 1070 | 98 | 87 | 87 | 113.05 | 115.82 | 2.77 | 25.52 | 101.4 | 15.6 | 3.7 | 3 | -3.0 | 250 | 250 | 32 |
| | 14 | 5 | 0.08 | 0.79 | 1075 | 98 | 87 | 87 | 115.82 | 118.58 | 2.76 | 25.56 | 101.2 | 15.6 | 3.5 | 3 | -3.0 | 250 | 250 | 32 |
| | 15 | 5 | 0.08 | 0.80 | 1076 | 98 | 89 | 89 | 118.58 | 121.30 | 2.72 | 25.57 | 99.6 | 15.8 | 3.6 | 4 | -3.0 | 250 | 250 | 32 |
| | 16 | 5 | 0.09 | 0.90 | 1068 | 98 | 89 | 89 | 121.30 | 124.30 | 3.00 | 27.05 | 103.3 | 15.5 | 3.7 | 4 | -3.0 | 250 | 250 | 32 |
| | 17 | 5 | 0.09 | 0.90 | 1070 | 99 | 90 | 90 | 124.30 | 127.23 | 2.93 | 27.06 | 100.8 | 15.5 | 3.7 | 4 | -3.0 | 250 | 250 | 41 |
| | 18 | 5 | 0.09 | 0.90 | 1070 | 99 | 90 | 90 | 127.23 | 130.11 | 2.88 | 27.06 | 99.0 | 15.5 | 3.7 | 3 | -3.0 | 250 | 250 | 41 |
| 2 | 1 | 5 | 0.08 | 0.86 | 964 | 94 | 90 | 90 | 130.18 | 133.02 | 2.84 | 24.62 | 100.4 | 16.0 | 3.1 | 2 | -4.0 | 250 | 250 | 41 |
| | 2 | 5 | 0.08 | 0.83 | 1018 | 97 | 90 | 90 | 133.02 | 135.85 | 2.83 | 25.08 | 101.6 | 16.0 | 3.4 | 4 | -4.0 | 250 | 250 | 41 |
| | 3 | 5 | 0.08 | 0.83 | 1015 | 97 | 90 | 90 | 135.85 | 138.64 | 2.79 | 25.05 | 100.1 | 15.9 | 3.5 | 4 | -4.0 | 250 | 250 | 41 |
| | 4 | 5 | 0.08 | 0.84 | 997 | 97 | 90 | 90 | 138.64 | 141.45 | 2.81 | 24.90 | 100.2 | 16.0 | 3.5 | 5 | -4.0 | 250 | 250 | 41 |
| | 5 | 5 | 0.09 | 0.95 | 989 | 98 | 90 | 90 | 141.45 | 144.44 | 2.99 | 26.34 | 100.2 | 15.9 | 3.4 | 6 | -4.0 | 250 | 250 | 41 |
| | 6 | 5 | 0.09 | 0.94 | 1015 | 97 | 90 | 90 | 144.44 | 147.32 | 2.88 | 26.57 | 97.4 | 15.9 | 3.4 | 4 | -5.0 | 250 | 250 | 41 |
| | 7 | 5 | 0.08 | 0.84 | 1006 | 97 | 90 | 90 | 147.32 | 150.13 | 2.81 | 24.98 | 100.5 | 16.1 | 3.3 | 3 | -5.0 | 250 | 250 | 41 |
| | 8 | 5 | 0.09 | 0.95 | 994 | 95 | 89 | 89 | 150.13 | 153.13 | 3.00 | 26.38 | 101.0 | 16.0 | 3.4 | 4 | -5.0 | 250 | 250 | 42 |
| | 9 | 5 | 0.09 | 0.95 | 991 | 95 | 89 | 89 | 153.13 | 156.15 | 3.02 | 26.36 | 101.6 | 16.0 | 3.4 | 3 | -5.0 | 250 | 250 | 42 |
| | 10 | 5 | 0.09 | 0.95 | 986 | 95 | 89 | 89 | 156.15 | 159.14 | 2.99 | 26.31 | 100.4 | 16.1 | 3.3 | 4 | -5.0 | 250 | 250 | 42 |
| | 11 | 5 | 0.10 | 1.07 | 976 | 95 | 89 | 89 | 159.14 | 162.29 | 3.15 | 27.64 | 100.1 | 16.0 | 3.4 | 2 | -5.0 | 250 | 250 | 39 |
| | 12 | 5 | 0.09 | 0.96 | 974 | 95 | 89 | 89 | 162.29 | 165.37 | 3.08 | 26.20 | 102.9 | 16.3 | 3.2 | 3 | -5.0 | 250 | 250 | 40 |
| | 13 | 5 | 0.09 | 0.97 | 957 | 95 | 88 | 88 | 165.37 | 168.41 | 3.04 | 26.05 | 101.2 | 16.4 | 3.0 | 3 | -5.0 | 250 | 250 | 40 |
| | 14 | 5 | 0.09 | 0.96 | 976 | 95 | 88 | 88 | 168.41 | 171.43 | 3.02 | 26.22 | 101.2 | 16.4 | 2.9 | 4 | -5.0 | 250 | 250 | 34 |
| | 15 | 5 | 0.09 | 0.96 | 971 | 95 | 88 | 88 | 171.43 | 174.43 | 3.00 | 26.17 | 100.3 | 16.6 | 3.0 | 4 | -5.0 | 250 | 250 | 34 |
| | 16 | 5 | 0.09 | 0.95 | 980 | 95 | 88 | 88 | 174.43 | 177.45 | 3.02 | 26.26 | 101.3 | 16.5 | 3.0 | 3 | -5.0 | 250 | 250 | 34 |
| | 17 | 5 | 0.09 | 0.95 | 984 | 95 | 88 | 88 | 177.45 | 180.40 | 2.95 | 26.29 | 99.1 | 16.6 | 3.0 | 2 | -5.0 | 250 | 250 | 34 |
| | 18 | 5 | 0.10 | 1.06 | 979 | 94 | 88 | 88 | 180.40 | 183.51 | 3.11 | 27.67 | 99.1 | 16.6 | 3.0 | 2 | -5.0 | 250 | 250 | 35 |

RELEVÉ D'ÉCHANTILLONNAGE: INCINÉRATEUR - ME - ESSAI# ME-2

| Trav. # | Point # | Durée de pompage (minutes) | Différence de pression "H ₂ O | | Températures °F | | | | Volume de gaz (litres ou pi ³) | | | Vitesse p/s | Iso. % | O ₂ % | CO ₂ % | CO ppm | Vacuum po Hg | Sonde (°F) | Filtre (°F) | Barb. (Glace) |
|---------|---------|----------------------------|--|------|-----------------|-----------------|-----------------|---------|--|--------|-------|-------------|--------|------------------|-------------------|--------|--------------|------------|-------------|---------------|
| | | | ΔP | ΔH | Cheminée | Compteur Entrée | Compteur Sortie | Orifice | Début | Fin | Total | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 5 | 0.07 | 0.79 | 830 | 63 | 63 | 63 | 83.74 | 86.40 | 2.66 | 21.91 | 101.6 | 15.8 | 2.6 | 4 | -2.0 | 250 | 250 | 31 |
| | 2 | 5 | 0.07 | 0.76 | 885 | 64 | 63 | 63 | 86.40 | 89.06 | 2.66 | 22.37 | 103.6 | 15.3 | 3.6 | 7 | -2.0 | 250 | 250 | 31 |
| | 3 | 5 | 0.07 | 0.74 | 914 | 67 | 63 | 63 | 89.06 | 91.72 | 2.66 | 22.61 | 104.4 | 15.2 | 4.0 | 5 | -2.0 | 250 | 250 | 31 |
| | 4 | 5 | 0.08 | 0.84 | 930 | 70 | 64 | 64 | 91.72 | 94.47 | 2.75 | 24.31 | 101.2 | 15.1 | 3.9 | 4 | -2.0 | 250 | 250 | 31 |
| | 5 | 5 | 0.08 | 0.85 | 922 | 74 | 64 | 64 | 94.47 | 97.24 | 2.77 | 24.24 | 101.3 | 15.1 | 3.9 | 4 | -2.0 | 250 | 250 | 31 |
| | 6 | 5 | 0.08 | 0.83 | 945 | 75 | 65 | 65 | 97.24 | 100.00 | 2.76 | 24.44 | 101.5 | 15.1 | 3.9 | 4 | -2.0 | 250 | 250 | 32 |
| | 7 | 5 | 0.08 | 0.85 | 919 | 76 | 65 | 65 | 100.00 | 102.75 | 2.75 | 24.22 | 100.1 | 15.0 | 4.0 | 4 | -2.0 | 250 | 250 | 32 |
| | 8 | 5 | 0.08 | 0.85 | 919 | 77 | 66 | 66 | 102.75 | 105.51 | 2.76 | 24.22 | 100.2 | 15.0 | 4.0 | 3 | -2.0 | 250 | 250 | 33 |
| | 9 | 5 | 0.08 | 0.84 | 943 | 77 | 66 | 66 | 105.51 | 108.23 | 2.72 | 24.43 | 99.9 | 15.1 | 3.9 | 2 | -2.0 | 250 | 250 | 33 |
| | 10 | 5 | 0.09 | 0.95 | 925 | 77 | 67 | 67 | 108.23 | 111.00 | 2.77 | 25.74 | 95.1 | 15.0 | 4.0 | 3 | -2.0 | 250 | 250 | 35 |
| | 11 | 5 | 0.09 | 0.92 | 980 | 77 | 67 | 67 | 111.00 | 113.86 | 2.86 | 26.25 | 100.2 | 14.3 | 4.4 | 2 | -2.0 | 250 | 250 | 35 |
| | 12 | 5 | 0.09 | 0.95 | 932 | 77 | 67 | 67 | 113.86 | 116.76 | 2.90 | 25.81 | 99.7 | 14.7 | 4.2 | 5 | -2.0 | 250 | 250 | 35 |
| | 13 | 5 | 0.08 | 0.85 | 927 | 78 | 67 | 67 | 116.76 | 119.60 | 2.84 | 24.29 | 103.3 | 14.0 | 4.7 | 2 | -2.0 | 250 | 250 | 36 |
| | 14 | 5 | 0.08 | 0.86 | 913 | 79 | 68 | 68 | 119.60 | 122.43 | 2.83 | 24.16 | 102.2 | 14.8 | 4.2 | 3 | -2.0 | 250 | 250 | 36 |
| | 15 | 5 | 0.07 | 0.75 | 914 | 79 | 68 | 68 | 122.43 | 125.05 | 2.62 | 22.61 | 101.2 | 15.0 | 3.9 | 2 | -2.0 | 250 | 250 | 36 |
| | 16 | 5 | 0.07 | 0.75 | 923 | 80 | 69 | 69 | 125.05 | 127.66 | 2.61 | 22.69 | 101.0 | 14.9 | 4.3 | 1 | -2.0 | 250 | 250 | 36 |
| | 17 | 5 | 0.07 | 0.74 | 939 | 81 | 69 | 69 | 127.66 | 130.25 | 2.59 | 22.82 | 100.7 | 15.1 | 4.0 | 4 | -2.0 | 250 | 250 | 36 |
| | 18 | 5 | 0.07 | 0.74 | 934 | 81 | 69 | 69 | 130.25 | 132.92 | 2.67 | 22.78 | 103.6 | 15.1 | 4.0 | 2 | -2.0 | 250 | 250 | 36 |
| 2 | 1 | 5 | 0.08 | 0.85 | 930 | 75 | 71 | 71 | 132.92 | 135.67 | 2.75 | 24.31 | 100.2 | 15.1 | 4.0 | 2 | -3.0 | 250 | 250 | 37 |
| | 2 | 5 | 0.08 | 0.82 | 990 | 81 | 71 | 71 | 135.67 | 138.43 | 2.76 | 24.83 | 101.9 | 15.6 | 3.6 | 2 | -3.0 | 250 | 250 | 38 |
| | 3 | 5 | 0.08 | 0.86 | 912 | 83 | 72 | 72 | 138.43 | 141.22 | 2.79 | 24.16 | 100.2 | 15.6 | 3.6 | 2 | -3.0 | 250 | 250 | 38 |
| | 4 | 5 | 0.08 | 0.87 | 907 | 84 | 73 | 73 | 141.22 | 144.03 | 2.80 | 24.11 | 100.2 | 15.9 | 3.5 | 3 | -3.0 | 250 | 250 | 40 |
| | 5 | 5 | 0.08 | 0.86 | 923 | 85 | 73 | 73 | 144.03 | 146.86 | 2.83 | 24.25 | 101.6 | 15.7 | 3.6 | 4 | -3.0 | 250 | 250 | 41 |
| | 6 | 5 | 0.08 | 0.86 | 923 | 85 | 74 | 74 | 146.86 | 149.65 | 2.79 | 24.25 | 100.2 | 15.8 | 3.6 | 1 | -3.0 | 250 | 250 | 43 |
| | 7 | 5 | 0.09 | 0.93 | 977 | 85 | 74 | 74 | 149.65 | 152.61 | 2.96 | 26.22 | 101.9 | 15.7 | 3.7 | 3 | -3.0 | 250 | 250 | 42 |
| | 8 | 5 | 0.09 | 0.96 | 940 | 86 | 75 | 75 | 152.61 | 155.59 | 2.98 | 25.88 | 101.2 | 15.8 | 3.6 | 2 | -3.0 | 250 | 250 | 42 |
| | 9 | 5 | 0.10 | 1.03 | 982 | 86 | 75 | 75 | 155.59 | 158.65 | 3.06 | 27.69 | 100.2 | 15.8 | 3.6 | 4 | -3.0 | 250 | 250 | 43 |
| | 10 | 5 | 0.10 | 1.04 | 981 | 86 | 76 | 76 | 158.65 | 161.77 | 3.12 | 27.68 | 101.8 | 15.9 | 3.6 | 4 | -3.0 | 250 | 250 | 42 |
| | 11 | 5 | 0.10 | 1.06 | 954 | 86 | 76 | 76 | 161.77 | 164.79 | 3.02 | 27.42 | 97.7 | 16.0 | 3.5 | 3 | -3.0 | 250 | 250 | 42 |
| | 12 | 5 | 0.10 | 1.06 | 950 | 86 | 76 | 76 | 164.79 | 167.89 | 3.10 | 27.38 | 100.2 | 16.1 | 3.5 | 2 | -3.0 | 250 | 250 | 42 |
| | 13 | 5 | 0.09 | 0.95 | 950 | 86 | 76 | 76 | 167.93 | 170.93 | 3.00 | 25.97 | 102.1 | 16.1 | 3.4 | 2 | -3.0 | 250 | 250 | 43 |
| | 14 | 5 | 0.09 | 0.95 | 952 | 86 | 76 | 76 | 170.93 | 173.92 | 2.99 | 25.99 | 101.9 | 16.1 | 3.4 | 3 | -3.0 | 250 | 250 | 45 |
| | 15 | 5 | 0.08 | 0.83 | 975 | 86 | 76 | 76 | 173.92 | 176.77 | 2.85 | 24.70 | 103.8 | 16.1 | 3.3 | 4 | -3.0 | 250 | 250 | 44 |
| | 16 | 5 | 0.07 | 0.74 | 949 | 86 | 76 | 76 | 176.77 | 179.42 | 2.65 | 22.90 | 102.2 | 16.1 | 3.3 | 4 | -3.0 | 250 | 250 | 44 |
| | 17 | 5 | 0.07 | 0.73 | 970 | 86 | 77 | 77 | 179.42 | 182.00 | 2.58 | 23.07 | 100.2 | 16.2 | 3.3 | 4 | -3.0 | 250 | 250 | 43 |
| | 18 | 5 | 0.07 | 0.74 | 956 | 86 | 77 | 77 | 182.00 | 184.68 | 2.68 | 22.95 | 103.5 | 16.4 | 3.2 | 0 | -3.0 | 250 | 250 | 43 |

RELEVÉ D'ÉCHANTILLONNAGE: INCINÉRATEUR - ME - ESSAI# ME-3

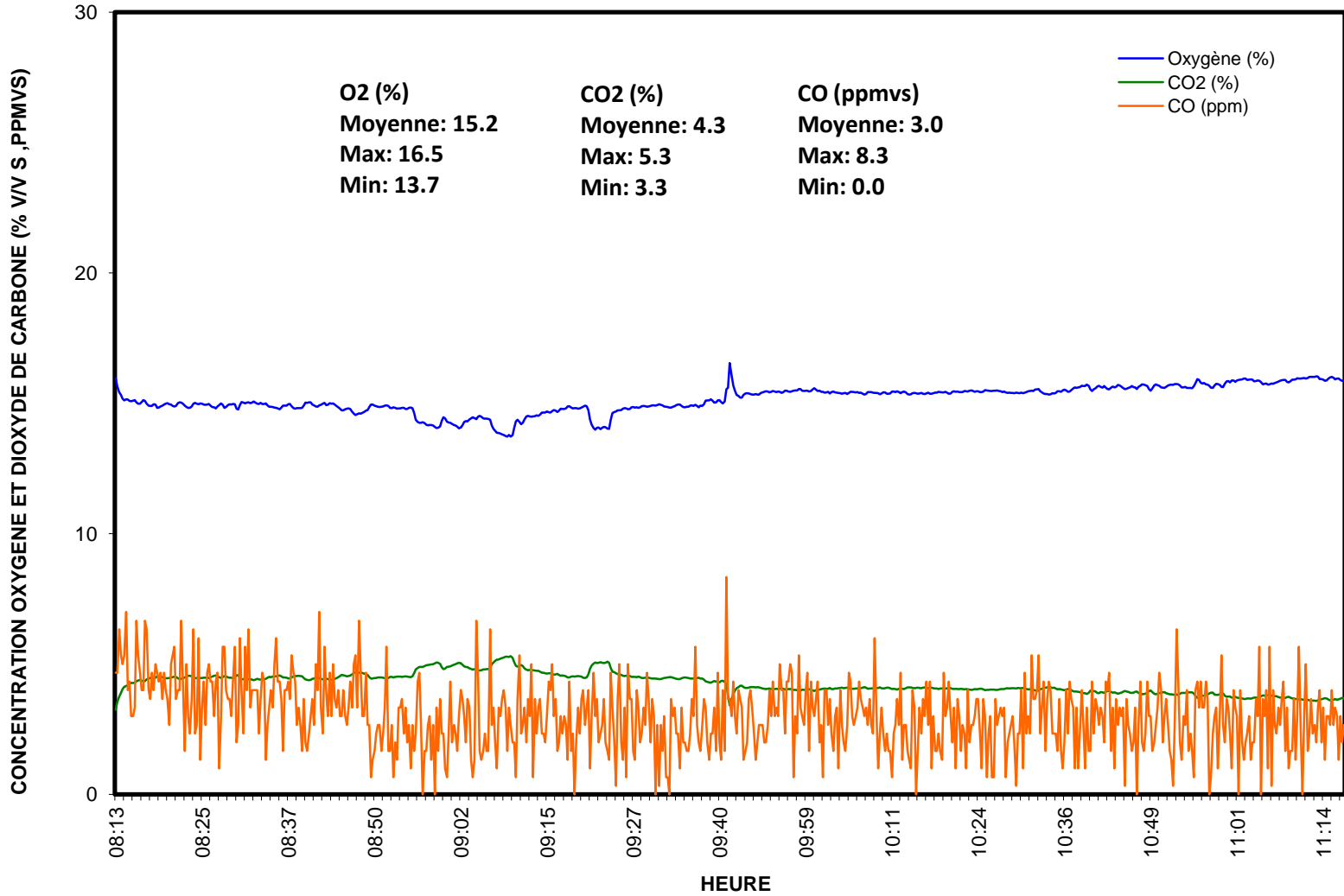
| Trav. # | Point # | Durée de pompage (minutes) | Différence de pression "H ₂ O | | Températures °F | | | | Volume de gaz (litres ou pi ³) | | | Vitesse p/s | Iso. % | O ₂ % | CO ₂ % | CO ppm | Vacuum po Hg | Sonde (°F) | Filtre (°F) | Barb. (Glacé) |
|---------|---------|----------------------------|--|------|-----------------|-----------------|-----------------|-----------------|--|--------|-------|-------------|--------|------------------|-------------------|--------|--------------|------------|-------------|---------------|
| | | | ΔP | ΔH | Cheminée | Compteur Entrée | Compteur Sortie | Compteur Sortie | Début | Fin | Total | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 1 | 1 | 5 | 0.07 | 0.71 | 960 | 60 | 60 | 60 | 91.52 | 94.03 | 2.51 | 22.98 | 101.3 | 13.7 | 4.3 | 10 | -2.0 | 250 | 250 | 43 |
| | 2 | 5 | 0.08 | 0.82 | 964 | 68 | 61 | 61 | 94.03 | 96.68 | 2.65 | 24.60 | 99.3 | 13.5 | 4.8 | 6 | -2.0 | 250 | 250 | 43 |
| | 3 | 5 | 0.08 | 0.83 | 937 | 72 | 61 | 61 | 96.68 | 99.33 | 2.65 | 24.36 | 98.0 | 13.3 | 5.2 | 6 | -2.0 | 250 | 250 | 43 |
| | 4 | 5 | 0.08 | 0.83 | 941 | 73 | 62 | 62 | 99.33 | 102.06 | 2.73 | 24.40 | 100.9 | 13.6 | 5.0 | 4 | -2.0 | 250 | 250 | 43 |
| | 5 | 5 | 0.08 | 0.85 | 913 | 74 | 62 | 62 | 102.06 | 104.86 | 2.80 | 24.15 | 102.4 | 14.0 | 4.7 | 9 | -2.0 | 250 | 250 | 43 |
| | 6 | 5 | 0.08 | 0.83 | 942 | 75 | 63 | 63 | 104.86 | 107.60 | 2.74 | 24.41 | 101.1 | 13.7 | 4.9 | 3 | -2.0 | 250 | 250 | 43 |
| | 7 | 5 | 0.09 | 0.96 | 905 | 75 | 63 | 63 | 107.60 | 110.53 | 2.93 | 25.54 | 100.6 | 15.3 | 3.8 | 4 | -2.0 | 250 | 250 | 42 |
| | 8 | 5 | 0.09 | 0.95 | 917 | 75 | 64 | 64 | 110.53 | 113.44 | 2.91 | 25.66 | 100.2 | 13.6 | 4.9 | 4 | -2.0 | 250 | 250 | 42 |
| | 9 | 5 | 0.09 | 0.96 | 912 | 76 | 64 | 64 | 113.44 | 116.40 | 2.96 | 25.61 | 101.7 | 14.0 | 4.7 | 3 | -2.0 | 250 | 250 | 42 |
| | 10 | 5 | 0.09 | 0.94 | 931 | 76 | 64 | 64 | 116.40 | 119.32 | 2.92 | 25.79 | 101.0 | 14.6 | 4.2 | 2 | -2.0 | 250 | 250 | 42 |
| | 11 | 5 | 0.09 | 0.94 | 935 | 76 | 65 | 65 | 119.32 | 122.23 | 2.91 | 25.82 | 100.6 | 14.6 | 4.3 | 5 | -2.0 | 250 | 250 | 42 |
| | 12 | 5 | 0.09 | 0.94 | 936 | 76 | 65 | 65 | 122.23 | 125.11 | 2.88 | 25.83 | 99.7 | 14.7 | 4.0 | 2 | -2.0 | 250 | 250 | 43 |
| | 13 | 5 | 0.09 | 0.93 | 960 | 77 | 65 | 65 | 125.11 | 127.98 | 2.87 | 26.05 | 100.1 | 14.3 | 4.4 | 6 | -2.0 | 250 | 250 | 43 |
| | 14 | 5 | 0.08 | 0.84 | 944 | 77 | 66 | 66 | 127.98 | 130.75 | 2.77 | 24.43 | 101.8 | 14.6 | 4.1 | 4 | -2.0 | 250 | 250 | 43 |
| | 15 | 5 | 0.08 | 0.81 | 984 | 77 | 66 | 66 | 130.75 | 133.49 | 2.74 | 24.77 | 102.1 | 15.0 | 3.9 | 8 | -2.0 | 250 | 250 | 43 |
| | 16 | 5 | 0.08 | 0.82 | 963 | 77 | 66 | 66 | 133.49 | 136.22 | 2.73 | 24.59 | 101.0 | 14.7 | 4.3 | 4 | -2.0 | 250 | 250 | 43 |
| | 17 | 5 | 0.08 | 0.83 | 950 | 78 | 66 | 66 | 136.22 | 138.98 | 2.76 | 24.48 | 101.5 | 14.5 | 4.3 | 4 | -2.0 | 250 | 250 | 43 |
| | 18 | 5 | 0.07 | 0.71 | 991 | 78 | 66 | 66 | 138.98 | 141.48 | 2.50 | 23.23 | 99.7 | 14.2 | 4.5 | 6 | -2.0 | 250 | 250 | 43 |
| 2 | 1 | 5 | 0.07 | 0.71 | 985 | 69 | 67 | 67 | 141.58 | 144.16 | 2.58 | 23.18 | 103.4 | 14.2 | 4.5 | 6 | -2.0 | 250 | 250 | 43 |
| | 2 | 5 | 0.07 | 0.70 | 1003 | 75 | 67 | 67 | 144.16 | 146.73 | 2.57 | 23.32 | 103.1 | 14.2 | 4.5 | 6 | -2.0 | 250 | 250 | 43 |
| | 3 | 5 | 0.07 | 0.70 | 1007 | 75 | 67 | 67 | 146.73 | 149.30 | 2.57 | 23.35 | 103.2 | 14.3 | 4.3 | 7 | -2.0 | 250 | 250 | 43 |
| | 4 | 5 | 0.07 | 0.70 | 1010 | 74 | 68 | 68 | 149.30 | 151.87 | 2.57 | 23.38 | 103.3 | 15.4 | 3.6 | 7 | -2.0 | 250 | 250 | 43 |
| | 5 | 5 | 0.08 | 0.79 | 1032 | 75 | 68 | 68 | 151.87 | 154.62 | 2.75 | 25.18 | 104.1 | 15.4 | 3.6 | 5 | -2.0 | 250 | 250 | 43 |
| | 6 | 5 | 0.08 | 0.79 | 1029 | 74 | 68 | 68 | 154.62 | 157.34 | 2.72 | 25.15 | 103.0 | 15.4 | 3.5 | 4 | -2.0 | 250 | 250 | 43 |
| | 7 | 5 | 0.08 | 0.79 | 1023 | 74 | 68 | 68 | 157.34 | 160.04 | 2.70 | 25.10 | 102.0 | 15.5 | 3.4 | 5 | -2.0 | 250 | 250 | 43 |
| | 8 | 5 | 0.09 | 0.88 | 1045 | 74 | 68 | 68 | 160.04 | 162.90 | 2.86 | 26.82 | 102.7 | 15.5 | 3.5 | 6 | -2.0 | 250 | 250 | 43 |
| | 9 | 5 | 0.09 | 0.87 | 1060 | 74 | 69 | 69 | 162.90 | 165.78 | 2.88 | 26.96 | 103.8 | 15.6 | 3.5 | 7 | -2.0 | 250 | 250 | 43 |
| | 10 | 5 | 0.09 | 0.93 | 970 | 74 | 69 | 69 | 165.78 | 168.66 | 2.88 | 26.15 | 100.6 | 15.5 | 3.6 | 5 | -2.0 | 250 | 250 | 43 |
| | 11 | 5 | 0.09 | 0.97 | 908 | 73 | 69 | 69 | 168.66 | 171.63 | 2.97 | 25.57 | 101.7 | 15.5 | 3.6 | 4 | -2.0 | 250 | 250 | 43 |
| | 12 | 5 | 0.08 | 0.78 | 1050 | 72 | 70 | 70 | 171.63 | 174.34 | 2.71 | 25.33 | 103.3 | 15.3 | 3.6 | 7 | -2.0 | 250 | 250 | 43 |
| | 13 | 5 | 0.08 | 0.78 | 1057 | 73 | 70 | 70 | 174.34 | 177.02 | 2.68 | 25.39 | 102.3 | 15.2 | 3.7 | 6 | -2.0 | 250 | 250 | 43 |
| | 14 | 5 | 0.08 | 0.78 | 1063 | 73 | 70 | 70 | 177.02 | 179.68 | 2.66 | 25.44 | 101.8 | 15.4 | 3.7 | 7 | -2.0 | 250 | 250 | 43 |
| | 15 | 5 | 0.08 | 0.77 | 1073 | 73 | 70 | 70 | 179.68 | 182.33 | 2.65 | 25.52 | 101.7 | 15.1 | 3.8 | 5 | -2.0 | 250 | 250 | 44 |
| | 16 | 5 | 0.08 | 0.78 | 1063 | 76 | 71 | 71 | 182.33 | 184.97 | 2.64 | 25.44 | 100.6 | 15.2 | 3.7 | 7 | -2.0 | 250 | 250 | 42 |
| | 17 | 5 | 0.08 | 0.77 | 1087 | 77 | 71 | 71 | 184.97 | 187.62 | 2.65 | 25.64 | 101.7 | 15.2 | 3.8 | 5 | -2.0 | 250 | 250 | 40 |
| | 18 | 5 | 0.08 | 0.78 | 1062 | 77 | 71 | 71 | 187.62 | 190.47 | 2.85 | 25.43 | 108.5 | 15.1 | 3.8 | 4 | -2.0 | 250 | 250 | 40 |

APPENDIX 2

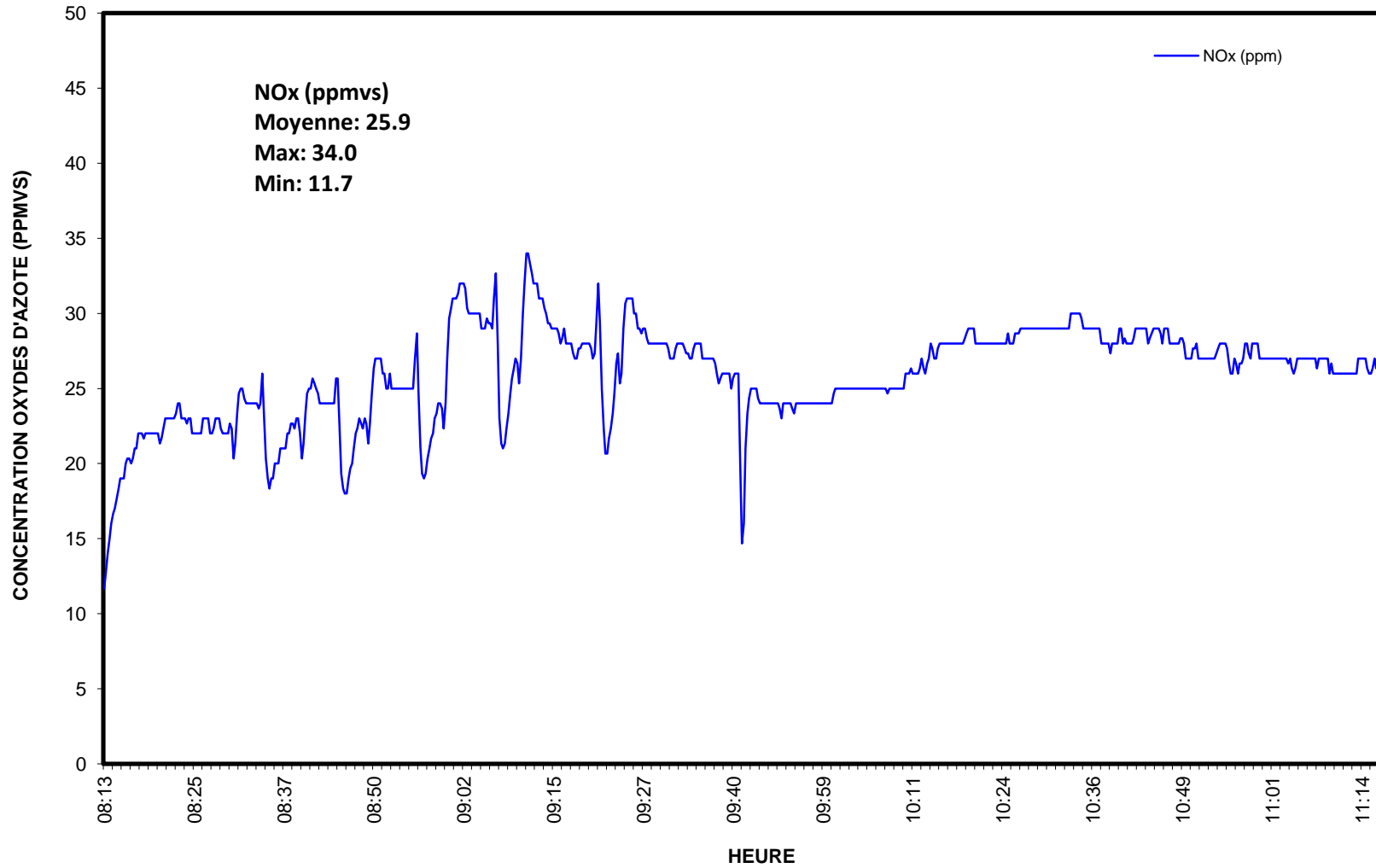
CONTINUOUS MEASUREMENTS OF GAS



AEM, BAKER LAKE-INCINERATOR
OXYGEN, CARBON DIOXIDE ET CARBON MONOXIDE
JULY 2 2016 FROM 08:13 À 11:17
TEST #1



AEM, BAKER LAKE-INCINERATOR
MESURES DES OXYDES D'AZOTE
JULY 2 2016 FROM 08:13 À 11:17
TEST #1



APPENDIX 3

CALIBRATION CERTIFICATES



| # | Année | MDF | LV | # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | Moy. V L. Total | Eff. L. Total | Thermocouple | P-T-B | Endroit | | | |
|-------|-------|-----|-----|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|-----------------|---------------|--------------|-------|---------|---------|------------|---------|
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | po. | po. | (Validation) | --- | --- | | | |
| 05-03 | 2016 | N | O | Buse A-312-1 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.750 | | | | | | | | | | | | 0.750 | 65 | 78.75 | OK | OK | LE-11-V | | |
| | | | | E. Rel | 1.2 | | | | | | | | | | | | 1.2 | | | | | | | |
| 05-05 | 2016 | O | O | Buse A-180-1 A-218-5 A-250-1 A-280-6 A-312-1 A-343-5 A-375-3 A-406-2 A-437-1 A-500-1 A-562-1 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.795 | 0.797 | 0.800 | 0.793 | 0.800 | 0.792 | 0.793 | 0.799 | 0.800 | 0.790 | 0.794 | | | 0.796 | 64 | 78.5 | OK | OK | LE-14-B | |
| | | | | E. Rel | 0.7 | 1.0 | 0.7 | 0.9 | 0.9 | 0.9 | 0.8 | 1.1 | 0.9 | 0.8 | 1.1 | | | 0.9 | | | | | | |
| 05-07 | 2016 | N | Q | Buse 5Q-562 5Q-433 5Q-376 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.793 | 0.778 | 0.789 | | | | | | | | | | | 0.787 | 58 | 70 | OK | OK | Atelier | |
| | | | | E. Rel | 0.7 | 0.6 | 0.6 | | | | | | | | | | | 0.6 | | | | | | |
| 05-08 | 2016 | O | O | Buse B-312-2 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.795 | | | | | | | | | | | | | 0.795 | 64 | 78 | OK | OK | LE-05-O | |
| | | | | E. Rel | 0.4 | | | | | | | | | | | | | 0.4 | | | | | | |
| 05-09 | 2016 | O | O | Buse B-312-2 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.809 | | | | | | | | | | | | | 0.809 | 65 | 77 | OK | OK | LE-14-B | |
| | | | | E. Rel | 0.6 | | | | | | | | | | | | | 0.6 | | | | | | |
| 05-10 | 2016 | O | O | Buse B-312-2 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.783 | | | | | | | | | | | | | 0.783 | 65 | 78 | OK | OK | LE-05-O | |
| | | | | E. Rel | 0.6 | | | | | | | | | | | | | 0.6 | | | | | | |
| 05-11 | 2016 | O | O | Buse A-312-1 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.803 | | | | | | | | | | | | | 0.803 | 65 | 78.5 | OK | OK | LE-02-W | |
| | | | | E. Rel | 1.5 | | | | | | | | | | | | | 1.5 | | | | | | |
| 05-12 | 2016 | O | O | Buse A-180-1 A-218-5 A-250-1 A-280-6 A-312-1 A-343-5 A-375-3 A-406-2 A-437-1 A-500-1 A-562-1 | | | | | | | | | | | | | | --- | | | | | | |
| | | | | Ct | 0.783 | 0.786 | 0.789 | 0.781 | 0.789 | 0.782 | 0.781 | 0.787 | 0.788 | 0.781 | 0.784 | | | | 0.785 | 65 | 78.5 | OK | OK | LE-15-B |
| | | | | E. Rel | 0.8 | 0.7 | 0.9 | 0.6 | 0.9 | 0.6 | 0.7 | 0.9 | 0.9 | 0.6 | 0.7 | | | 0.8 | | | | | | |
| 05-13 | 2016 | O | O | Buse B-312-2 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.800 | | | | | | | | | | | | | 0.800 | 65 | 78 | OK | OK | LE-11-V | |
| | | | | E. Rel | 0.0 | | | | | | | | | | | | | 0.0 | | | | | | |
| 05-14 | 2016 | O | O | Buse A-312-1 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.792 | | | | | | | | | | | | | 0.792 | 65 | 78 | OK | OK | LE-02-W | |
| | | | | E. Rel | 1.3 | | | | | | | | | | | | | 1.3 | | | | | | |
| 05-15 | 2016 | O | O | Buse A-180-1 A-218-5 A-250-1 A-280-6 A-312-1 A-343-5 A-375-3 A-406-2 A-437-1 A-500-1 A-562-1 | | | | | | | | | | | | | | --- | | | | | | |
| | | | | Ct | 0.802 | 0.807 | 0.810 | 0.807 | 0.810 | 0.806 | 0.807 | 0.810 | 0.814 | 0.805 | 0.808 | | | | 0.808 | 65 | 78 | OK | OK | LE-02-W |
| | | | | E. Rel | 0.4 | 0.7 | 0.8 | 0.6 | 0.8 | 1.0 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | | | 0.8 | | | | | | |
| 05-16 | 2016 | O | O | Buse A-180-1 A-218-5 A-250-1 A-280-6 A-312-1 A-343-5 A-375-3 A-406-2 A-432-1 A-500-1 A-562-1 | | | | | | | | | | | | | | --- | | | | | | |
| | | | | Ct | 0.793 | 0.797 | 0.797 | 0.792 | 0.800 | 0.792 | 0.796 | 0.798 | 0.799 | 0.793 | 0.795 | | | | 0.796 | 65 | 78 | OK | OK | LE-02-W |
| | | | | E. Rel | 0.6 | 0.7 | 0.6 | 0.4 | 0.6 | 0.8 | 0.4 | 0.8 | 0.6 | 0.7 | 0.6 | | | 0.6 | | | | | | |
| 05-18 | 2016 | O | O | Buse B-312-2 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.790 | | | | | | | | | | | | | 0.790 | 65 | 78 | OK | OK | LE-08-Br | |
| | | | | E. Rel | 0.6 | | | | | | | | | | | | | 0.6 | | | | | | |
| 05-20 | 2016 | O | O | Buse B-312-2 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.788 | | | | | | | | | | | | | 0.788 | 65 | 78 | OK | OK | LE-08-Br | |
| | | | | E. Rel | 0.6 | | | | | | | | | | | | | 0.6 | | | | | | |
| 05-21 | 2016 | O | V | Buse A-312-1 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.792 | | | | | | | | | | | | | 0.792 | 64 | 75 | OK | OK | Atelier Qc | |
| | | | | E. Rel | 1 | | | | | | | | | | | | | 1.0 | | | | | | |
| 05-22 | 2016 | O | O | Buse A-312-1 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.789 | | | | | | | | | | | | | 0.789 | 62 | 75 | OK | OK | LE-09-G | |
| | | | | E. Rel | 1.1 | | | | | | | | | | | | | 1.1 | | | | | | |
| 05-23 | 2016 | O | O | Buse A-312-1 | | | | | | | | | | | | | --- | | | | | | | |
| | | | | Ct | 0.802 | | | | | | | | | | | | | 0.802 | 62 | 75 | OK | OK | LE-09-G | |
| | | | | E. Rel | 0.6 | | | | | | | | | | | | | 0.6 | | | | | | |

Effectué par: SHD/JTG/MR/MC/CON
 Vérifié par: Eric Trépanier
 Approuvé par: Carl Jackson

Date: du 1 février au 15 février 2016
 Date: 23 février 2016
 Date: 24 février 2016

FEUILLE D'ÉTALONNAGE DES MODULES 2016

| MODULE | GAMMA (K _c) | ORIFICE (K _o) | | ΔH@ moy | DATE ÉTALONNAGE | CORRECTION ΔH EN FONCTION DU K _o | | COMPENSÉ 60 °F |
|--------|----------------------------|---------------------------|-------------------------|---------|--------------------|---|-----------------------------|-------------------|
| | | K _o | ΔH | | | | | |
| 1 | 1.005 | 1.003 | MOYENNE (DH= 0.09-3.00) | 0.979 | 13-nov-15 | --- | --- | OUI |
| 2 | 0.997 | 0.974 | MOYENNE (DH= 0.13-3.00) | 1.050 | 05-janv-16 | --- | --- | OUI |
| 3 | 0.991 | 0.964 | MOYENNE (DH= 0.13-3.00) | 1.081 | 20-juin-16 | --- | --- | OUI |
| 4 | 0.996 | 0.978 | MOYENNE (DH= 0.09-3.00) | 1.048 | 03-déc-15 | --- | --- | OUI |
| 5 | 0.993 | 0.967 | MOYENNE (DH= 0.13-3.00) | 0.989 | 29-mars-16 | --- | --- | NON |
| 6 | 0.993 | 1.127 | MOYENNE (DH= 0.49-2.00) | 0.977 | 13-juil-15 | Si ΔH < 0.49 po d'eau | Ko = 0.0816 (ln DH) + 1.151 | OUI |
| 7 | 1.008 | 1.009 | MOYENNE (DH= 0.09-3.00) | 0.898 | 09-oct-15 | --- | --- | NON |
| 8 | 1.001 | 0.766 | MOYENNE (DH= 0.64-6.00) | 1.903 | 20-août-15 | --- | --- | OUI |
| 9 | 1.031 | 1.016 | MOYENNE (DH= 0.09-3.00) | 0.891 | 26-nov-15 | --- | --- | NON |
| 10 | 1.007 | 0.965 | MOYENNE (DH= 0.13-3.00) | 1.084 | 30-mars-16 | --- | --- | OUI |
| 11 | 1.015 | 0.977 | MOYENNE (DH= 0.13-3.00) | 1.026 | 30-mai-16 | --- | --- | OUI |
| 12 | 0.997 | 0.910 | MOYENNE (DH= 0.13-3.00) | 1.115 | 11-mai-16 | --- | --- | NON |
| 13 | 1.006 | 0.967 | MOYENNE (DH= 0.13-3.00) | 0.986 | 31-mars-16 | --- | --- | NON |
| 14 | 1.007 | 0.999 | MOYENNE (DH= 0.13-3.00) | 0.987 | 11-mai-16 | --- | --- | OUI |
| 15 | 0.976 | 0.979 | MOYENNE (DH= 0.09-3.00) | 0.964 | 09-oct-15 | --- | --- | NON |
| 16 | 0.995 | 0.763 | MOYENNE (DH= 0.64-6.00) | 1.910 | 17-juin-15 | Si ΔH < 0.64 po d'eau | Ko = 0.1391 (ln DH) + 0.805 | NON |
| 17 | 0.986 | 0.712 | MOYENNE (DH= 0.64-6.00) | 2.040 | 06-août-15 | Si ΔH < 0.64 po d'eau | Ko = 0.1981 (ln DH) + 0.822 | NON |
| 18 | 1.013 | 0.706 | MOYENNE (DH= 0.64-6.00) | 1.751 | 03-août-15 | --- | --- | NON |
| 19 | 1.007 | 1.023 | MOYENNE (DH= 0.36-2.00) | 1.033 | 29-juil-15 | Si ΔH < 0.36 po d'eau | Ko = 0.0856 (ln DH) + 1.105 | OUI |
| 20 | 0.986 | 0.969 | MOYENNE (DH= 0.13-3.00) | 1.044 | 31-mai-16 | --- | --- | OUI |
| 21 | 1.003 | 1.018 | MOYENNE (DH= 0.49-3.00) | 0.966 | 19-août-15 | --- | --- | OUI |
| 22 | 0.993 | 0.855 | MOYENNE (DH= 0.16-2.00) | 1.399 | 05-août-15 | Si ΔH < 0.16 po d'eau | Ko = 0.0619 (ln DH) + 0.940 | OUI |
| 23 | 1.016 | 0.712 | MOYENNE (DH= 0.64-6.00) | 2.284 | 30-juil-15 | Si ΔH < 0.64 po d'eau | Ko = 0.0937 (ln DH) + 0.718 | NON |
| 24 | 1.006 | 0.712 | MOYENNE (DH= 0.64-6.00) | 1.898 | 20-août-15 | --- | --- | NON |
| 25 | 0.985 | 0.756 | MOYENNE (DH= 0.13-6.00) | 1.632 | 04-mai-16 | --- | --- | NON |

| MODULE | GAMMA (K _c) | DATE ÉTALONNAGE |
|--------|----------------------------|--------------------|
| F-1 | 1.017 | 11-janv-16 |
| F-2 | 0.987 | 10-mai-16 |
| F-3 | 1.001 | 15-sept-15 |
| F-4 | 0.993 | 06-janv-16 |
| F-5 | 0.997 | 27-nov-15 |
| F-6 | 0.977 | 02-juin-16 |

APPENDIX 4

LABORATORY ANALYSIS REPORT



NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC
2022 LAVOISIER LOCAL 125
QUEBEC, QC G1N4L5
(418) 650-5960

À L'ATTENTION DE: Simon Demers

N° DE PROJET: 4411

N° BON DE TRAVAIL: 16M113573

HAUTE RÉOLUTION VÉRIFIÉ PAR: Philippe Morneau, chimiste

DATE DU RAPPORT: 2016-08-12

VERSION*: 1

NOMBRE DE PAGES: 7

Si vous désirez de l'information concernant cette analyse, S.V.P. contacter votre chargé de projets au (514) 337-1000.

*NOTES

Nous disposerons des échantillons dans les 30 jours suivants les analyses. S.V.P. Contactez le laboratoire si vous désirez avoir un délai d'entreposage.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

1 à 6

IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-E1

MATRICE: Air

DATE D'ÉCHANTILLONNAGE: 2016-07-30

| Paramètre | Unités | C / N | LDR | 7689864 |
|---|--------|-------|-----|---------|
| 2,3,7,8-TCDD (pg total) | pg | | 1 | <1 |
| 1,2,3,7,8 PeCDD (pg total) | pg | | 3 | <3 |
| 1,2,3,4,7,8 HxCDD (pg total) | pg | | 1 | <1 |
| 1,2,3,6,7,8 HxCDD (pg total) | pg | | 1 | <1 |
| 1,2,3,7,8,9 HxCDD (pg total) | pg | | 1 | <1 |
| 1,2,3,4,6,7,8 HpCDD (pg total) | pg | | 1 | 12 |
| OCDD (pg total) | pg | | 7 | 34 |
| 2,3,7,8 TCDF (pg total) | pg | | 1 | <1 |
| 1,2,3,7,8 PeCDF (pg total) | pg | | 2 | 4 |
| 2,3,4,7,8-PeCDF (pg total) | pg | | 1 | 3 |
| 1,2,3,4,7,8 HxCDF (pg total) | pg | | 1 | 7 |
| 1,2,3,6,7,8 HxCDF (pg total) | pg | | 1 | 3 |
| 2,3,4,6,7,8-HxCDF (pg total) | pg | | 1 | 3 |
| 1,2,3,7,8,9 HxCDF (pg total) | pg | | 1 | <1 |
| 1,2,3,4,6,7,8 HpCDF (pg total) | pg | | 1 | 6 |
| 1,2,3,4,7,8,9 HpCDF (pg total) | pg | | 2 | <2 |
| OCDF (pg total) | pg | | 2 | 5 |
| Sommation des Tétrachlorodibenzodioxines | pg | | 1 | 43 |
| Sommation des Pentachlorodibenzodioxines | pg | | 3 | 42 |
| Sommation des Hexachlorodibenzodioxines | pg | | 1 | 57 |
| Sommation des Heptachlorodibenzodioxines | pg | | 1 | 23 |
| Sommation des PCDDs | pg | | 6 | 199 |
| Sommation des Tétrachlorodibenzofuranes | pg | | 1 | 107 |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

| 1 à 6 | | | | |
|---|--------|-------|-----|----------|
| IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-E1 | | | | |
| MATRICE: Air | | | | |
| DATE D'ÉCHANTILLONNAGE: 2016-07-30 | | | | |
| Paramètre | Unités | C / N | LDR | 7689864 |
| Sommation des Pentachlorodibenzofuranes | pg | | 2 | 39 |
| Sommation des Hexachlorodibenzofuranes | pg | | 1 | 23 |
| Sommation des Heptachlorodibenzofuranes | pg | | 2 | 9 |
| Sommation des PCDFs | pg | | 2 | 183 |
| 2,3,7,8-Tetra CDD (TEF 1.0) | TEQ | | | 0 |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | TEQ | | | 0 |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | TEQ | | | 0.119 |
| Octa CDD (TEF 0.0001) | TEQ | | | 0.00336 |
| 2,3,7,8-Tetra CDF (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | TEQ | | | 0.175 |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | TEQ | | | 1.46 |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.656 |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.266 |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.346 |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | TEQ | | | 0.0582 |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | TEQ | | | 0 |
| Octa CDF (TEF 0.0001) | TEQ | | | 0.000486 |
| Sommation des PCDDs et PCDFs (TEQ) | | | | 3.08 |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.



Certificat d'analyse

N° BON DE TRAVAIL: 16M113573

N° DE PROJET: 4411

9770 ROUTE TRANSCANADIENNE
ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
FAX (514)333-3046
<http://www.agatlabs.com>

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

1 à 6

IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-E1

MATRICE: Air

DATE D'ÉCHANTILLONNAGE: 2016-07-30

| Étalon de recouvrement | Unités | Limites | 7689864 |
|------------------------|--------|---------|---------|
| 13C-2378-TCDF | % | 30-140 | 82 |
| 13C-12378-PeCDF | % | 30-140 | 90 |
| 13C-23478-PeCDF | % | 30-140 | 96 |
| 13C-123478-HxCDF | % | 30-140 | 78 |
| 13C-123678-HxCDF | % | 30-140 | 74 |
| 13C-234678-HxCDF | % | 30-140 | 78 |
| 13C-123789-HxCDF | % | 30-140 | 85 |
| 13C-1234678-HpCDF | % | 30-140 | 74 |
| 13C-1234789-HpCDF | % | 30-140 | 88 |
| 13C-2378-TCDD | % | 30-140 | 84 |
| 13C-12378-PeCDD | % | 30-140 | 107 |
| 13C-123478-HxCDD | % | 30-140 | 82 |
| 13C-123678-HxCDD | % | 30-140 | 81 |
| 13C-1234678-HxCDD | % | 30-140 | 88 |
| 13C-OCDD | % | 30-140 | 74 |

Commentaires: LDR - Limite de détection rapportée; C / N - Critères Normes

7689864 Le résultat en pg total correspond au composite de chacune des parties du train d'échantillonnage.

Certifié par:



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Contrôle de qualité

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113573

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Analyse haute résolution

| Date du rapport: 2016-08-12 | | | DUPLICATA | | | MATÉRIAU DE RÉFÉRENCE | | | BLANC FORTIFIÉ | | | ÉCH. FORTIFIÉ | | | |
|--|-----|---------|-----------|--------|-----------|-----------------------|----------|---------|----------------|----------|---------|---------------|----------|---------|------|
| PARAMÈTRE | Lot | N° éch. | Dup #1 | Dup #2 | % d'écart | Blanc de méthode | % Récup. | Limites | | % Récup. | Limites | | % Récup. | Limites | |
| | | | | | | | | Inf. | Sup. | | Inf. | Sup. | | Inf. | Sup. |
| Dioxines et furanes - Air (train d'échantillonnage - OMS 1998) | | | | | | | | | | | | | | | |
| 2,3,7,8-TCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 1 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 4 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,7,8 TCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 93% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,7,8-PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 90% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 106% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,6,7,8-HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 97% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 89% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.3 | 95% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.4 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 96% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113573

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|---|------------|------------|-------------|--------------------------|----------------------|
| Analyse haute résolution | | | | | |
| 2,3,7,8-TCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8 TCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-PeCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDFs | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDD (TEF 1.0) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Octa CDD (TEF 0.0001) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR_151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113573

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|------------------------------------|------------|------------|-------------|--------------------------|----------------------|
| Octa CDF (TEF 0.0001) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs et PCDFs (TEQ) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-23478-PeCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-234678-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123789-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HpCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234789-HpCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HxCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-OCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC
2022 LAVOISIER LOCAL 125
QUEBEC, QC G1N4L5
(418) 650-5960

À L'ATTENTION DE: Simon Demers

N° DE PROJET: 4411

N° BON DE TRAVAIL: 16M113583

HAUTE RÉOLUTION VÉRIFIÉ PAR: Philippe Morneau, chimiste

DATE DU RAPPORT: 2016-08-12

VERSION*: 1

NOMBRE DE PAGES: 7

Si vous désirez de l'information concernant cette analyse, S.V.P. contacter votre chargé de projets au (514) 337-1000.

*NOTES

Nous disposerons des échantillons dans les 30 jours suivants les analyses. S.V.P. Contactez le laboratoire si vous désirez avoir un délai d'entreposage.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

7 à 12

IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-E2

MATRICE: Air

DATE D'ÉCHANTILLONNAGE: 2016-07-01

| Paramètre | Unités | C / N | LDR | 7689959 |
|---|--------|-------|-----|---------|
| 2,3,7,8-TCDD (pg total) | pg | | 0.9 | 8.5 |
| 1,2,3,7,8 PeCDD (pg total) | pg | | 4 | 29 |
| 1,2,3,4,7,8 HxCDD (pg total) | pg | | 2 | 16 |
| 1,2,3,6,7,8 HxCDD (pg total) | pg | | 2 | 45 |
| 1,2,3,7,8,9 HxCDD (pg total) | pg | | 2 | 64 |
| 1,2,3,4,6,7,8 HpCDD (pg total) | pg | | 3 | 197 |
| OCDD (pg total) | pg | | 5 | 206 |
| 2,3,7,8 TCDF (pg total) | pg | | 2 | 106 |
| 1,2,3,7,8 PeCDF (pg total) | pg | | 3 | 71 |
| 2,3,4,7,8-PeCDF (pg total) | pg | | 2 | 113 |
| 1,2,3,4,7,8 HxCDF (pg total) | pg | | 5 | 180 |
| 1,2,3,6,7,8 HxCDF (pg total) | pg | | 5 | 85 |
| 2,3,4,6,7,8-HxCDF (pg total) | pg | | 5 | 106 |
| 1,2,3,7,8,9 HxCDF (pg total) | pg | | 2 | 5 |
| 1,2,3,4,6,7,8 HpCDF (pg total) | pg | | 2 | 216 |
| 1,2,3,4,7,8,9 HpCDF (pg total) | pg | | 2 | 15 |
| OCDF (pg total) | pg | | 2 | 41 |
| Sommation des Tétrachlorodibenzodioxines | pg | | 0.9 | 689 |
| Sommation des Pentachlorodibenzodioxines | pg | | 4 | 650 |
| Sommation des Hexachlorodibenzodioxines | pg | | 2 | 630 |
| Sommation des Heptachlorodibenzodioxines | pg | | 3 | 433 |
| Sommation des PCDDs | pg | | 5 | 2610 |
| Sommation des Tétrachlorodibenzofuranes | pg | | 2 | 3300 |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

| 7 à 12 | | | | |
|---|--------|-------|-----|---------|
| IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-E2 | | | | |
| MATRICE: Air | | | | |
| DATE D'ÉCHANTILLONNAGE: 2016-07-01 | | | | |
| Paramètre | Unités | C / N | LDR | 7689959 |
| Sommation des Pentachlorodibenzofuranes | pg | | 3 | 1300 |
| Sommation des Hexachlorodibenzofuranes | pg | | 5 | 666 |
| Sommation des Heptachlorodibenzofuranes | pg | | 2 | 293 |
| Sommation des PCDFs | pg | | 5 | 5590 |
| 2,3,7,8-Tetra CDD (TEF 1.0) | TEQ | | | 8.54 |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | TEQ | | | 29.3 |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 1.64 |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 4.50 |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | TEQ | | | 6.42 |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | TEQ | | | 1.97 |
| Octa CDD (TEF 0.0001) | TEQ | | | 0.0206 |
| 2,3,7,8-Tetra CDF (TEF 0.1) | TEQ | | | 10.6 |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | TEQ | | | 3.55 |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | TEQ | | | 56.6 |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 18.0 |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 8.48 |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 10.6 |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | TEQ | | | 0.540 |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | TEQ | | | 2.16 |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | TEQ | | | 0.147 |
| Octa CDF (TEF 0.0001) | TEQ | | | 0.00414 |
| Sommation des PCDDs et PCDFs (TEQ) | | | | 163 |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

7 à 12

IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-E2

MATRICE: Air

DATE D'ÉCHANTILLONNAGE: 2016-07-01

| Étalon de recouvrement | Unités | Limites | 7689959 |
|------------------------|--------|---------|---------|
| 13C-2378-TCDF | % | 30-140 | 79 |
| 13C-12378-PeCDF | % | 30-140 | 86 |
| 13C-23478-PeCDF | % | 30-140 | 98 |
| 13C-123478-HxCDF | % | 30-140 | 75 |
| 13C-123678-HxCDF | % | 30-140 | 72 |
| 13C-234678-HxCDF | % | 30-140 | 78 |
| 13C-123789-HxCDF | % | 30-140 | 83 |
| 13C-1234678-HpCDF | % | 30-140 | 68 |
| 13C-1234789-HpCDF | % | 30-140 | 84 |
| 13C-2378-TCDD | % | 30-140 | 77 |
| 13C-12378-PeCDD | % | 30-140 | 105 |
| 13C-123478-HxCDD | % | 30-140 | 80 |
| 13C-123678-HxCDD | % | 30-140 | 82 |
| 13C-1234678-HxCDD | % | 30-140 | 85 |
| 13C-OCDD | % | 30-140 | 70 |

Commentaires: LDR - Limite de détection rapportée; C / N - Critères Normes

7689959 Le résultat en pg total correspond au composite de chacune des parties du train d'échantillonnage.

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

Contrôle de qualité

 NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC
 N° DE PROJET: 4411
 PRÉLEVÉ PAR: Consulair

 N° BON DE TRAVAIL: 16M113583
 À L'ATTENTION DE: Simon Demers
 LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Analyse haute résolution

| Date du rapport: 2016-08-12 | | | DUPLICATA | | | MATÉRIAU DE RÉFÉRENCE | | | BLANC FORTIFIÉ | | | ÉCH. FORTIFIÉ | | | |
|--|-----|---------|-----------|--------|-----------|-----------------------|----------|---------|----------------|----------|---------|---------------|----------|---------|------|
| PARAMÈTRE | Lot | N° éch. | Dup #1 | Dup #2 | % d'écart | Blanc de méthode | % Récup. | Limites | | % Récup. | Limites | | % Récup. | Limites | |
| | | | | | | | | Inf. | Sup. | | Inf. | Sup. | | Inf. | Sup. |
| Dioxines et furanes - Air (train d'échantillonnage - OMS 1998) | | | | | | | | | | | | | | | |
| 2,3,7,8-TCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 1 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 4 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,7,8 TCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 93% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,7,8-PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 90% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 106% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,6,7,8-HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 97% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 89% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.3 | 95% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.4 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 96% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113583

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|---|------------|------------|-------------|--------------------------|----------------------|
| Analyse haute résolution | | | | | |
| 2,3,7,8-TCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDD (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8 TCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-PeCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDF (pg total) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzodioxines | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzofuranes | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDFs | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDD (TEF 1.0) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Octa CDD (TEF 0.0001) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR_151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113583

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|------------------------------------|------------|------------|-------------|--------------------------|----------------------|
| Octa CDF (TEF 0.0001) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs et PCDFs (TEQ) | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-23478-PeCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-234678-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123789-HxCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HpCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234789-HpCDF | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HxCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-OCDD | 2016-07-30 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC
2022 LAVOISIER LOCAL 125
QUEBEC, QC G1N4L5
(418) 650-5960

À L'ATTENTION DE: Simon Demers

N° DE PROJET: 4411

N° BON DE TRAVAIL: 16M113596

HAUTE RÉOLUTION VÉRIFIÉ PAR: Philippe Morneau, chimiste

DATE DU RAPPORT: 2016-08-12

VERSION*: 1

NOMBRE DE PAGES: 7

Si vous désirez de l'information concernant cette analyse, S.V.P. contacter votre chargé de projets au (514) 337-1000.

*NOTES

Nous disposerons des échantillons dans les 30 jours suivants les analyses. S.V.P. Contactez le laboratoire si vous désirez avoir un délai d'entreposage.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

| Paramètre | Unités | C / N | LDR | 13 à 18-Incinérateur- | |
|---|--------|-------|-----|-------------------------------------|--------------|
| | | | | IDENTIFICATION DE L'ÉCHANTILLON: E3 | MATRICE: Air |
| | | | | DATE D'ÉCHANTILLONNAGE: 2016-07-02 | |
| | | | | 7690010 | |
| 2,3,7,8-TCDD (pg total) | pg | | 1 | 1 | |
| 1,2,3,7,8 PeCDD (pg total) | pg | | 1 | <1 | |
| 1,2,3,4,7,8 HxCDD (pg total) | pg | | 2 | <2 | |
| 1,2,3,6,7,8 HxCDD (pg total) | pg | | 2 | 4 | |
| 1,2,3,7,8,9 HxCDD (pg total) | pg | | 2 | 5 | |
| 1,2,3,4,6,7,8 HpCDD (pg total) | pg | | 2 | 12 | |
| OCDD (pg total) | pg | | 4 | 19 | |
| 2,3,7,8 TCDF (pg total) | pg | | 1 | 2 | |
| 1,2,3,7,8 PeCDF (pg total) | pg | | 0.8 | 2 | |
| 2,3,4,7,8-PeCDF (pg total) | pg | | 1 | 3 | |
| 1,2,3,4,7,8 HxCDF (pg total) | pg | | 2 | 6 | |
| 1,2,3,6,7,8 HxCDF (pg total) | pg | | 2 | 4 | |
| 2,3,4,6,7,8-HxCDF (pg total) | pg | | 2 | 4 | |
| 1,2,3,7,8,9 HxCDF (pg total) | pg | | 3 | <3 | |
| 1,2,3,4,6,7,8 HpCDF (pg total) | pg | | 2 | 5 | |
| 1,2,3,4,7,8,9 HpCDF (pg total) | pg | | 2 | <2 | |
| OCDF (pg total) | pg | | 2 | 8 | |
| Sommation des Tétrachlorodibenzodioxines | pg | | 1 | 40 | |
| Sommation des Pentachlorodibenzodioxines | pg | | 1 | 51 | |
| Sommation des Hexachlorodibenzodioxines | pg | | 2 | 50 | |
| Sommation des Heptachlorodibenzodioxines | pg | | 2 | 26 | |
| Sommation des PCDDs | pg | | 2 | 186 | |
| Sommation des Tétrachlorodibenzofuranes | pg | | 1 | 120 | |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

| Paramètre | Unités | C / N | LDR | 7690010 |
|--|--------|-------|-----|----------|
| IDENTIFICATION DE L'ÉCHANTILLON: 13 à 18-Incinérateur- MATRICE: E3 DATE D'ÉCHANTILLONNAGE: Air 2016-07-02 | | | | |
| Sommation des Pentachlorodibenzofuranes | pg | | 1 | 28 |
| Sommation des Hexachlorodibenzofuranes | pg | | 3 | 23 |
| Sommation des Heptachlorodibenzofuranes | pg | | 2 | 12 |
| Sommation des PCDFs | pg | | 3 | 192 |
| 2,3,7,8-Tetra CDD (TEF 1.0) | TEQ | | | 1.48 |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | TEQ | | | 0 |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 0.372 |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | TEQ | | | 0.480 |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | TEQ | | | 0.120 |
| Octa CDD (TEF 0.0001) | TEQ | | | 0.00186 |
| 2,3,7,8-Tetra CDF (TEF 0.1) | TEQ | | | 0.154 |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | TEQ | | | 0.0900 |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | TEQ | | | 1.69 |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.610 |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.414 |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.362 |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | TEQ | | | 0.0460 |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | TEQ | | | 0 |
| Octa CDF (TEF 0.0001) | TEQ | | | 0.000766 |
| Sommation des PCDDs et PCDFs (TEQ) | | | | 5.82 |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

| Étalon de recouvrement | Unités | Limites | |
|------------------------|--------|---------|-------------------------------------|
| | | | 13 à 18-Incinérateur- |
| | | | IDENTIFICATION DE L'ÉCHANTILLON: E3 |
| | | | MATRICE: Air |
| | | | DATE D'ÉCHANTILLONNAGE: 2016-07-02 |
| | | | 7690010 |
| 13C-2378-TCDF | % | 30-140 | 86 |
| 13C-12378-PeCDF | % | 30-140 | 85 |
| 13C-23478-PeCDF | % | 30-140 | 77 |
| 13C-123478-HxCDF | % | 30-140 | 64 |
| 13C-123678-HxCDF | % | 30-140 | 52 |
| 13C-234678-HxCDF | % | 30-140 | 66 |
| 13C-123789-HxCDF | % | 30-140 | 72 |
| 13C-1234678-HpCDF | % | 30-140 | 52 |
| 13C-1234789-HpCDF | % | 30-140 | 67 |
| 13C-2378-TCDD | % | 30-140 | 84 |
| 13C-12378-PeCDD | % | 30-140 | 89 |
| 13C-123478-HxCDD | % | 30-140 | 65 |
| 13C-123678-HxCDD | % | 30-140 | 63 |
| 13C-1234678-HxCDD | % | 30-140 | 64 |
| 13C-OCDD | % | 30-140 | 48 |

Commentaires: LDR - Limite de détection rapportée; C / N - Critères Normes

7690010 Le résultat en pg total correspond au composite de chacune des parties du train d'échantillonnage.

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

Contrôle de qualité

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113596

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Analyse haute résolution

| Date du rapport: 2016-08-12 | | | DUPLICATA | | | MATÉRIAU DE RÉFÉRENCE | | | BLANC FORTIFIÉ | | | ÉCH. FORTIFIÉ | | | |
|--|-----|---------|-----------|--------|-----------|-----------------------|----------|---------|----------------|----------|---------|---------------|----------|---------|------|
| PARAMÈTRE | Lot | N° éch. | Dup #1 | Dup #2 | % d'écart | Blanc de méthode | % Récup. | Limites | | % Récup. | Limites | | % Récup. | Limites | |
| | | | | | | | | Inf. | Sup. | | Inf. | Sup. | | Inf. | Sup. |
| Dioxines et furanes - Air (train d'échantillonnage - OMS 1998) | | | | | | | | | | | | | | | |
| 2,3,7,8-TCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 1 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 4 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,7,8 TCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 93% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,7,8-PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 90% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 106% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,6,7,8-HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 97% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 89% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.3 | 95% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.4 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 96% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113596

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|---|------------|------------|-------------|--------------------------|----------------------|
| Analyse haute résolution | | | | | |
| 2,3,7,8-TCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8 TCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-PeCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDFs | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDD (TEF 1.0) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Octa CDD (TEF 0.0001) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR_151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113596

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|------------------------------------|------------|------------|-------------|--------------------------|----------------------|
| Octa CDF (TEF 0.0001) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs et PCDFs (TEQ) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-23478-PeCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-234678-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123789-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HpCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234789-HpCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HxCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-OCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC
2022 LAVOISIER LOCAL 125
QUEBEC, QC G1N4L5
(418) 650-5960

À L'ATTENTION DE: Simon Demers

N° DE PROJET: 4411

N° BON DE TRAVAIL: 16M113606

HAUTE RÉOLUTION VÉRIFIÉ PAR: Philippe Morneau, chimiste

DATE DU RAPPORT: 2016-08-12

VERSION*: 1

NOMBRE DE PAGES: 7

Si vous désirez de l'information concernant cette analyse, S.V.P. contacter votre chargé de projets au (514) 337-1000.

*NOTES

Nous disposerons des échantillons dans les 30 jours suivants les analyses. S.V.P. Contactez le laboratoire si vous désirez avoir un délai d'entreposage.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

| 19 à 24 | | | | |
|---|--------|-------|-----|---------|
| IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-BL | | | | |
| MATRICE: Air | | | | |
| DATE D'ÉCHANTILLONNAGE: 2016-06-30 | | | | |
| Paramètre | Unités | C / N | LDR | 7690091 |
| 2,3,7,8-TCDD (pg total) | pg | | 2 | <2 |
| 1,2,3,7,8 PeCDD (pg total) | pg | | 0.8 | 1.8 |
| 1,2,3,4,7,8 HxCDD (pg total) | pg | | 1 | 5 |
| 1,2,3,6,7,8 HxCDD (pg total) | pg | | 1 | 2 |
| 1,2,3,7,8,9 HxCDD (pg total) | pg | | 1 | 4 |
| 1,2,3,4,6,7,8 HpCDD (pg total) | pg | | 2 | 23 |
| OCDD (pg total) | pg | | 4 | 311 |
| 2,3,7,8 TCDF (pg total) | pg | | 0.7 | 0.8 |
| 1,2,3,7,8 PeCDF (pg total) | pg | | 0.9 | 2.7 |
| 2,3,4,7,8-PeCDF (pg total) | pg | | 2 | <2 |
| 1,2,3,4,7,8 HxCDF (pg total) | pg | | 1 | 5 |
| 1,2,3,6,7,8 HxCDF (pg total) | pg | | 1 | 2 |
| 2,3,4,6,7,8-HxCDF (pg total) | pg | | 1 | 9 |
| 1,2,3,7,8,9 HxCDF (pg total) | pg | | 2 | <2 |
| 1,2,3,4,6,7,8 HpCDF (pg total) | pg | | 1 | 11 |
| 1,2,3,4,7,8,9 HpCDF (pg total) | pg | | 2 | <2 |
| OCDF (pg total) | pg | | 2 | 58 |
| Sommation des Tétrachlorodibenzodioxines | pg | | 2 | 2 |
| Sommation des Pentachlorodibenzodioxines | pg | | 0.8 | 6.4 |
| Sommation des Hexachlorodibenzodioxines | pg | | 1 | 12 |
| Sommation des Heptachlorodibenzodioxines | pg | | 2 | 53 |
| Sommation des PCDDs | pg | | 3 | 384 |
| Sommation des Tétrachlorodibenzofuranes | pg | | 0.6 | 15.0 |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

| 19 à 24 | | | | |
|---|--------|-------|-----|---------|
| IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-BL | | | | |
| MATRICE: Air | | | | |
| DATE D'ÉCHANTILLONNAGE: 2016-06-30 | | | | |
| Paramètre | Unités | C / N | LDR | 7690091 |
| Sommation des Pentachlorodibenzofuranes | pg | | 2 | 7 |
| Sommation des Hexachlorodibenzofuranes | pg | | 2 | 28 |
| Sommation des Heptachlorodibenzofuranes | pg | | 2 | 37 |
| Sommation des PCDFs | pg | | 2 | 145 |
| 2,3,7,8-Tetra CDD (TEF 1.0) | TEQ | | | 0 |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | TEQ | | | 0.178 |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 0.474 |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | TEQ | | | 0.170 |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | TEQ | | | 0.416 |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | TEQ | | | 0.233 |
| Octa CDD (TEF 0.0001) | TEQ | | | 0.0311 |
| 2,3,7,8-Tetra CDF (TEF 0.1) | TEQ | | | 0.0820 |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | TEQ | | | 0.135 |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | TEQ | | | 0 |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.524 |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.232 |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | TEQ | | | 0.938 |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | TEQ | | | 0 |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | TEQ | | | 0.106 |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | TEQ | | | 0 |
| Octa CDF (TEF 0.0001) | TEQ | | | 0.00582 |
| Sommation des PCDDs et PCDFs (TEQ) | | | | 5.13 |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.



Certificat d'analyse

N° BON DE TRAVAIL: 16M113606

N° DE PROJET: 4411

9770 ROUTE TRANSCANADIENNE
ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
FAX (514)333-3046
<http://www.agatlabs.com>

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

PRÉLEVÉ PAR: Consulair

À L'ATTENTION DE: Simon Demers

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Dioxines et furanes - Air (train d'échantillonnage - OMS 1998)

DATE DE RÉCEPTION: 2016-07-07

DATE DU RAPPORT: 2016-08-12

19 à 24

IDENTIFICATION DE L'ÉCHANTILLON: -Incinérateur-BL

MATRICE: Air

DATE D'ÉCHANTILLONNAGE: 2016-06-30

| Étalon de recouvrement | Unités | Limites | 7690091 |
|------------------------|--------|---------|---------|
| 13C-2378-TCDF | % | 30-140 | 63 |
| 13C-12378-PeCDF | % | 30-140 | 64 |
| 13C-23478-PeCDF | % | 30-140 | 75 |
| 13C-123478-HxCDF | % | 30-140 | 83 |
| 13C-123678-HxCDF | % | 30-140 | 75 |
| 13C-234678-HxCDF | % | 30-140 | 82 |
| 13C-123789-HxCDF | % | 30-140 | 88 |
| 13C-1234678-HpCDF | % | 30-140 | 78 |
| 13C-1234789-HpCDF | % | 30-140 | 98 |
| 13C-2378-TCDD | % | 30-140 | 109 |
| 13C-12378-PeCDD | % | 30-140 | 103 |
| 13C-123478-HxCDD | % | 30-140 | 85 |
| 13C-123678-HxCDD | % | 30-140 | 77 |
| 13C-1234678-HxCDD | % | 30-140 | 92 |
| 13C-OCDD | % | 30-140 | 83 |

Commentaires: LDR - Limite de détection rapportée; C / N - Critères Normes

7690091 Le résultat en pg total correspond au composite de chacune des parties du train d'échantillonnage.

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

Contrôle de qualité

 NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC
 N° DE PROJET: 4411
 PRÉLEVÉ PAR: Consulair

 N° BON DE TRAVAIL: 16M113606
 À L'ATTENTION DE: Simon Demers
 LIEU DE PRÉLÈVEMENT: AEM Meadowbank

Analyse haute résolution

| Date du rapport: 2016-08-12 | | | DUPLICATA | | | MATÉRIAU DE RÉFÉRENCE | | | BLANC FORTIFIÉ | | | ÉCH. FORTIFIÉ | | | |
|--|-----|---------|-----------|--------|-----------|-----------------------|----------|---------|----------------|----------|---------|---------------|----------|---------|------|
| PARAMÈTRE | Lot | N° éch. | Dup #1 | Dup #2 | % d'écart | Blanc de méthode | % Récup. | Limites | | % Récup. | Limites | | % Récup. | Limites | |
| | | | | | | | | Inf. | Sup. | | Inf. | Sup. | | Inf. | Sup. |
| Dioxines et furanes - Air (train d'échantillonnage - OMS 1998) | | | | | | | | | | | | | | | |
| 2,3,7,8-TCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 104% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 1 | 101% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDD (pg total) | 1 | NA | NA | NA | 0.0 | < 4 | 98% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,7,8 TCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8 PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.8 | 93% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,7,8-PeCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 90% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 99% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,6,7,8 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 106% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 2,3,4,6,7,8-HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.6 | 97% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,7,8,9 HxCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 89% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.3 | 95% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.4 | 102% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |
| OCDF (pg total) | 1 | NA | NA | NA | 0.0 | < 0.7 | 96% | 70% | 130% | NA | 70% | 130% | NA | 70% | 130% |

Certifié par:



La procédure des Laboratoires AGAT concernant les signatures et les signataires se conforme strictement aux exigences d'accréditation ISO 17025:2005 comme le requiert, lorsque applicable, CALA, CCN et MDDEFP. Toutes les signatures sur les certificats d'AGAT sont protégées par des mots de passe et les signataires rencontrent les exigences des domaines d'accréditation ainsi que les exigences régionales approuvées par CALA, CCN et MDDEFP.

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113606

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|---|------------|------------|-------------|--------------------------|----------------------|
| Analyse haute résolution | | | | | |
| 2,3,7,8-TCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDD (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8 TCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8 PeCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-PeCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8 HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8 HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9 HxCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8 HpCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9 HpCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| OCDF (pg total) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzodioxines | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Tétrachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Pentachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Hexachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des Heptachlorodibenzofuranes | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDFs | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDD (TEF 1.0) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDD (TEF 1.0) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDD (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDD (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDD (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDD (TEF 0.01) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Octa CDD (TEF 0.0001) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,7,8-Tetra CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8-Penta CDF (TEF 0.05) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,7,8-Penta CDF (TEF 0.5) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR_151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 2,3,4,6,7,8-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,7,8,9-Hexa CDF (TEF 0.1) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,6,7,8-Hepta CDF (TEF 0.01) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 1,2,3,4,7,8,9-Hepta CDF (TEF 0.01) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

Sommaire de méthode

NOM DU CLIENT: CONSULAIR GASTON BOULANGER INC

N° BON DE TRAVAIL: 16M113606

N° DE PROJET: 4411

À L'ATTENTION DE: Simon Demers

PRÉLEVÉ PAR: Consulair

LIEU DE PRÉLÈVEMENT: AEM Meadowbank

| PARAMÈTRE | PRÉPARÉ LE | ANALYSÉ LE | AGAT P.O.N. | RÉFÉRENCE DE LITTÉRATURE | TECHNIQUE ANALYTIQUE |
|------------------------------------|------------|------------|-------------|--------------------------|----------------------|
| Octa CDF (TEF 0.0001) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| Sommation des PCDDs et PCDFs (TEQ) | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-23478-PeCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-234678-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123789-HxCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HpCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234789-HpCDF | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-2378-TCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-12378-PeCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123478-HxCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-123678-HxCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-1234678-HxCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |
| 13C-OCDD | 2016-07-26 | 2016-07-30 | HR-151-5400 | EPA 1613/EPA Method 23 | HRMS |

Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK
Votre # Bordereau: N/A

Attention: Simon Demers

CONSULAIR INC.
2022 Lavoisier
Local 125
Québec, QC
Canada G1N 4L5

Date du rapport: 2016/08/09
Rapport: R2175510
Version: 1 - Finale

CERTIFICAT D'ANALYSES

DE DOSSIER MAXXAM: B646964

Reçu: 2016/07/07, 04:20

Matrice: Solution barboteur
Nombre d'échantillons reçus: 15

| Analyses | Quantité | Date de l' | Date | Méthode de laboratoire | Référence Primaire |
|----------------------|----------|------------|------------|------------------------|--------------------|
| | | extraction | Analysé | | |
| Mercure par AAVF* | 4 | 2016/07/25 | 2016/07/26 | STL SOP-00042 | MA200-Hg 1.1 R1 m |
| Métaux extractibles* | 4 | 2016/07/29 | 2016/08/05 | STL SOP-00006 | MA200-Mét 1.2 R5 m |
| Métaux extractibles* | 7 | 2016/08/02 | 2016/08/04 | STL SOP-00006 | MA200-Mét 1.2 R5 m |

Matrice: EAU
Nombre d'échantillons reçus: 4

| Analyses | Quantité | Date de l' | Date | Méthode de laboratoire | Référence Primaire |
|----------------------|----------|------------|------------|------------------------|--------------------|
| | | extraction | Analysé | | |
| Métaux extractibles* | 1 | 2016/08/02 | 2016/08/04 | STL SOP-00006 | MA200-Mét 1.2 R5 m |
| Métaux extractibles* | 2 | 2016/08/02 | 2016/08/05 | STL SOP-00006 | MA200-Mét 1.2 R5 m |
| Métaux extractibles* | 1 | 2016/08/02 | 2016/08/09 | STL SOP-00006 | MA200-Mét 1.2 R5 m |

Lorsque la méthode de référence comprend un suffixe « m », cela signifie que la méthode d'analyse du laboratoire contient des modifications validées et appliquées afin d'améliorer la performance de la méthode de référence.

Notez: Les données brutes sont utilisées pour le calcul du RPD (% d'écart relatif). L'arrondissement des résultats finaux peut expliquer la variation apparente.

* Maxxam détient l'accréditation pour cette analyse selon le programme du MDDELCC.

clé de cryptage

Veuillez adresser toute question concernant ce certificat d'analyse à votre chargé(e) de projets

Benoît Saumure, M.Sc., chimiste, Chargé de projets

Courriel: Bsaumure@maxxam.ca

Téléphone (514)448-9001 Ext:6281

=====
Maxxam a mis en place des procédures qui protègent contre l'utilisation non autorisée de la signature électronique et emploie les « signataires » requis, conformément à la section 5.10.2 de la norme ISO/CEI 17025:2005(E). Veuillez vous référer à la page des signatures de validation pour obtenir les détails des validations pour chaque division.

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| | | | | | | | | | |
|------------------------|--------|----------------------|-----|--------|--|-----|-------------------------------------|-----|--------|
| ID Maxxam | | CR3132 | | | CR3164 | | CR3165 | | |
| Date d'échantillonnage | | 2016/07/01 | | | 2016/07/01 | | 2016/07/01 | | |
| # Bordereau | | N/A | | | N/A | | N/A | | |
| | Unités | 1+2+3-INCINERATEUR-1 | LDR | Lot CQ | 4- INCINERATEUR- B34-1 VT:383.9ML | LDR | 5- INCINERATEUR- B5-1 VT:21ML | LDR | Lot CQ |

| MÉTAUX | | | | | | | | | |
|----------------|----|-------|------|---------|------|-----|-------|------|---------|
| Aluminium (Al) | ug | 71 | 1 | 1642938 | 4 | 4 | | 4 | 1643903 |
| Antimoine (Sb) | ug | 38.1 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Argent (Ag) | ug | 1.5 | 0.5 | 1642938 | <2 | 2 | | 2 | 1643903 |
| Arsenic (As) | ug | 2.2 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Baryum (Ba) | ug | 1.90 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Béryllium (Be) | ug | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Bismuth (Bi) | ug | 1.36 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Bore (B) | ug | 17.4 | 0.2 | 1642938 | 6.6 | 0.8 | | 0.8 | 1643903 |
| Cadmium (Cd) | ug | 2.80 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Calcium (Ca) | ug | 16000 | 5 | 1642938 | <20 | 20 | | 20 | 1643903 |
| Chrome (Cr) | ug | 23.0 | 0.1 | 1642938 | 1.0 | 0.4 | | 0.4 | 1643903 |
| Cobalt (Co) | ug | <0.1 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Cuivre (Cu) | ug | 47.2 | 0.1 | 1642938 | 0.6 | 0.4 | | 0.4 | 1643903 |
| Etain (Sn) | ug | 117 | 0.5 | 1642938 | 22 | 2 | | 2 | 1643903 |
| Fer (Fe) | ug | 140 | 5 | 1642938 | <20 | 20 | | 20 | 1643903 |
| Lithium (Li) | ug | 21 | 1 | 1642938 | <4 | 4 | | 4 | 1643903 |
| Magnésium (Mg) | ug | 120 | 2 | 1642938 | <8 | 8 | | 8 | 1643903 |
| Manganèse (Mn) | ug | 4.1 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Mercure (Hg) | ug | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | <0.01 | 0.01 | 1643903 |
| Molybdène (Mo) | ug | 60.8 | 0.5 | 1642938 | <2 | 2 | | | 1643903 |
| Nickel (Ni) | ug | 1.5 | 0.1 | 1642938 | 1.0 | 0.4 | | | 1643903 |
| Plomb (Pb) | ug | 59.4 | 0.5 | 1642938 | <2 | 2 | | | 1643903 |
| Potassium (K) | ug | 7680 | 10 | 1642938 | <40 | 40 | | | 1643903 |
| Sélénium (Se) | ug | 0.9 | 0.1 | 1642938 | <0.4 | 0.4 | | | 1643903 |
| Silicium (Si) | ug | 555 | 5 | 1642938 | 37 | 20 | | | 1643903 |
| Sodium (Na) | ug | 4460 | 5 | 1642938 | <20 | 20 | | | 1643903 |
| Strontium (Sr) | ug | 6.7 | 0.1 | 1642938 | <0.4 | 0.4 | | | 1643903 |
| Thallium (Tl) | ug | <0.1 | 0.1 | 1642938 | <0.4 | 0.4 | | | 1643903 |
| Titane (Ti) | ug | 4 | 1 | 1642938 | <4 | 4 | | | 1643903 |
| Vanadium (V) | ug | 0.8 | 0.2 | 1642938 | <0.8 | 0.8 | | | 1643903 |
| Zinc (Zn) | ug | 2310 | 0.1 | 1642938 | 13.8 | 0.4 | | | 1643903 |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| ID Maxxam | | CR3167 | | | CR4873 | | | CR4875 | | |
|------------------------|--------|--|-----|--------|-----------------------|-----|--------|---|-----|--------|
| Date d'échantillonnage | | 2016/07/01 | | | 2016/07/02 | | | 2016/07/02 | | |
| # Bordereau | | N/A | | | N/A | | | N/A | | |
| | Unités | 6+7- INCINERATEUR- B67-1 VT:536.1ML | LDR | Lot CQ | 8+9+10-INCINERATEUR-2 | LDR | Lot CQ | 11- INCINERATEUR- B34-2 VT:306.4ML | LDR | Lot CQ |

| MÉTAUX | | | | | | | | | | |
|----------------|----|------|-----|---------|-------|------|---------|------|-----|---------|
| Aluminium (Al) | ug | | 4 | 1643903 | 56 | 1 | 1642938 | 3 | 3 | 1643903 |
| Antimoine (Sb) | ug | | 0.4 | 1643903 | 20.0 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Argent (Ag) | ug | | 2 | 1643903 | 1.0 | 0.5 | 1642938 | <2 | 2 | 1643903 |
| Arsenic (As) | ug | | 0.4 | 1643903 | 1.2 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Baryum (Ba) | ug | | 0.2 | 1643903 | 1.49 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Béryllium (Be) | ug | | 0.2 | 1643903 | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Bismuth (Bi) | ug | | 0.2 | 1643903 | 1.09 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Bore (B) | ug | | 0.8 | 1643903 | 22.9 | 0.2 | 1642938 | 2.0 | 0.6 | 1643903 |
| Cadmium (Cd) | ug | | 0.2 | 1643903 | 1.32 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Calcium (Ca) | ug | | 20 | 1643903 | 11100 | 5 | 1642938 | <20 | 20 | 1643903 |
| Chrome (Cr) | ug | | 0.4 | 1643903 | 14.7 | 0.1 | 1642938 | 0.5 | 0.3 | 1643903 |
| Cobalt (Co) | ug | | 0.4 | 1643903 | 0.8 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Cuivre (Cu) | ug | | 0.4 | 1643903 | 45.8 | 0.1 | 1642938 | 1.3 | 0.3 | 1643903 |
| Etain (Sn) | ug | | 2 | 1643903 | 78.5 | 0.5 | 1642938 | 15 | 2 | 1643903 |
| Fer (Fe) | ug | | 20 | 1643903 | 183 | 5 | 1642938 | <20 | 20 | 1643903 |
| Lithium (Li) | ug | | 4 | 1643903 | 11 | 1 | 1642938 | <3 | 3 | 1643903 |
| Magnésium (Mg) | ug | | 8 | 1643903 | 86 | 2 | 1642938 | <6 | 6 | 1643903 |
| Manganèse (Mn) | ug | | 0.4 | 1643903 | 3.8 | 0.1 | 1642938 | 0.4 | 0.3 | 1643903 |
| Mercure (Hg) | ug | <0.3 | 0.3 | 1640322 | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Molybdène (Mo) | ug | | | | 67.8 | 0.5 | 1642938 | <2 | 2 | 1643903 |
| Nickel (Ni) | ug | | | | 118 | 0.1 | 1642938 | 0.4 | 0.3 | 1643903 |
| Plomb (Pb) | ug | | | | 52.7 | 0.5 | 1642938 | <2 | 2 | 1643903 |
| Potassium (K) | ug | | | | 5740 | 10 | 1642938 | <30 | 30 | 1643903 |
| Sélénium (Se) | ug | | | | 1.8 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Silicium (Si) | ug | | | | 320 | 5 | 1642938 | 21 | 20 | 1643903 |
| Sodium (Na) | ug | | | | 3130 | 5 | 1642938 | <20 | 20 | 1643903 |
| Strontium (Sr) | ug | | | | 5.2 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Thallium (Tl) | ug | | | | <0.1 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Titane (Ti) | ug | | | | 4 | 1 | 1642938 | <3 | 3 | 1643903 |
| Vanadium (V) | ug | | | | 0.5 | 0.2 | 1642938 | <0.6 | 0.6 | 1643903 |
| Zinc (Zn) | ug | | | | 3110 | 0.1 | 1642938 | 4.7 | 0.3 | 1643903 |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| | | | | | | | | | | |
|------------------------|--------|---|-----|--------|--|-----|--------|---------------------------------|-----|--------|
| ID Maxxam | | CR4876 | | | CR4877 | | | CR4883 | | |
| Date d'échantillonnage | | 2016/07/02 | | | 2016/07/02 | | | 2016/07/03 | | |
| # Bordereau | | N/A | | | N/A | | | N/A | | |
| | Unités | 12- INCINERATEUR- B5-2 VT:20.2ML | LDR | Lot CQ | 13+14- INCINERATEUR- B67-2 VT:522.5ML | LDR | Lot CQ | 15+16+17- INCINERATEUR- 3 | LDR | Lot CQ |

MÉTAUX

| | | | | | | | | | | |
|----------------|----|-------|------|---------|------|-----|---------|-------|------|---------|
| Aluminium (Al) | ug | | 3 | 1643903 | | 3 | 1643903 | 112 | 1 | 1642938 |
| Antimoine (Sb) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 31.3 | 0.1 | 1642938 |
| Argent (Ag) | ug | | 2 | 1643903 | | 2 | 1643903 | 1.1 | 0.5 | 1642938 |
| Arsenic (As) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 1.5 | 0.1 | 1642938 |
| Baryum (Ba) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | 2.48 | 0.05 | 1642938 |
| Béryllium (Be) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | <0.05 | 0.05 | 1642938 |
| Bismuth (Bi) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | 0.85 | 0.05 | 1642938 |
| Bore (B) | ug | | 0.6 | 1643903 | | 0.6 | 1643903 | 50.9 | 0.2 | 1642938 |
| Cadmium (Cd) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | 1.61 | 0.05 | 1642938 |
| Calcium (Ca) | ug | | 20 | 1643903 | | 20 | 1643903 | 30000 | 5 | 1642938 |
| Chrome (Cr) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 16.8 | 0.1 | 1642938 |
| Cobalt (Co) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 0.1 | 0.1 | 1642938 |
| Cuivre (Cu) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 78.8 | 0.1 | 1642938 |
| Etain (Sn) | ug | | 2 | 1643903 | | 2 | 1643903 | 98.0 | 0.5 | 1642938 |
| Fer (Fe) | ug | | 20 | 1643903 | | 20 | 1643903 | 159 | 5 | 1642938 |
| Lithium (Li) | ug | | 3 | 1643903 | | 3 | 1643903 | 16 | 1 | 1642938 |
| Magnésium (Mg) | ug | | 6 | 1643903 | | 6 | 1643903 | 195 | 2 | 1642938 |
| Manganèse (Mn) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 4.1 | 0.1 | 1642938 |
| Mercuré (Hg) | ug | <0.01 | 0.01 | 1643903 | <0.3 | 0.3 | 1640322 | <0.05 | 0.05 | 1642938 |
| Molybdène (Mo) | ug | | | 1643903 | | | | 47.4 | 0.5 | 1642938 |
| Nickel (Ni) | ug | | | 1643903 | | | | 2.7 | 0.1 | 1642938 |
| Plomb (Pb) | ug | | | 1643903 | | | | 50.7 | 0.5 | 1642938 |
| Potassium (K) | ug | | | 1643903 | | | | 7450 | 10 | 1642938 |
| Sélénium (Se) | ug | | | 1643903 | | | | 1.7 | 0.1 | 1642938 |
| Silicium (Si) | ug | | | 1643903 | | | | 588 | 5 | 1642938 |
| Sodium (Na) | ug | | | 1643903 | | | | 4000 | 5 | 1642938 |
| Strontium (Sr) | ug | | | 1643903 | | | | 12.7 | 0.1 | 1642938 |
| Thallium (Tl) | ug | | | 1643903 | | | | <0.1 | 0.1 | 1642938 |
| Titane (Ti) | ug | | | 1643903 | | | | 7 | 1 | 1642938 |
| Vanadium (V) | ug | | | 1643903 | | | | 0.9 | 0.2 | 1642938 |
| Zinc (Zn) | ug | | | 1643903 | | | | 9050 | 0.1 | 1642938 |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| | | | | | | | | | |
|------------------------|--------|---|-----|---|-----|--------|--|-----|--------|
| ID Maxxam | | CR4884 | | CR4885 | | | CR4886 | | |
| Date d'échantillonnage | | 2016/07/03 | | 2016/07/03 | | | 2016/07/03 | | |
| # Bordereau | | N/A | | N/A | | | N/A | | |
| | Unités | 18- INCINERATEUR- B34-3 VT:310.3ML | LDR | 19- INCINERATEUR- B5-3 VT:20.5ML | LDR | Lot CQ | 20+21- INCINERATEUR- B67-3 VT:525.5ML | LDR | Lot CQ |

MÉTAUX

| | | | | | | | | | |
|----------------|----|------|-----|-------|------|---------|------|-----|---------|
| Aluminium (Al) | ug | 3 | 3 | | 3 | 1643903 | | 3 | 1643903 |
| Antimoine (Sb) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Argent (Ag) | ug | <2 | 2 | | 2 | 1643903 | | 2 | 1643903 |
| Arsenic (As) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Baryum (Ba) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Béryllium (Be) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Bismuth (Bi) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Bore (B) | ug | 1.5 | 0.6 | | 0.6 | 1643903 | | 0.6 | 1643903 |
| Cadmium (Cd) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Calcium (Ca) | ug | <20 | 20 | | 20 | 1643903 | | 20 | 1643903 |
| Chrome (Cr) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Cobalt (Co) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Cuivre (Cu) | ug | 0.4 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Etain (Sn) | ug | 15 | 2 | | 2 | 1643903 | | 2 | 1643903 |
| Fer (Fe) | ug | <20 | 20 | | 20 | 1643903 | | 20 | 1643903 |
| Lithium (Li) | ug | <3 | 3 | | 3 | 1643903 | | 3 | 1643903 |
| Magnésium (Mg) | ug | <6 | 6 | | 6 | 1643903 | | 6 | 1643903 |
| Manganèse (Mn) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Mercure (Hg) | ug | <0.2 | 0.2 | <0.01 | 0.01 | 1643903 | <0.3 | 0.3 | 1640322 |
| Molybdène (Mo) | ug | <2 | 2 | | | 1643903 | | | |
| Nickel (Ni) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Plomb (Pb) | ug | <2 | 2 | | | 1643903 | | | |
| Potassium (K) | ug | <30 | 30 | | | 1643903 | | | |
| Sélénium (Se) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Silicium (Si) | ug | 22 | 20 | | | 1643903 | | | |
| Sodium (Na) | ug | <20 | 20 | | | 1643903 | | | |
| Strontium (Sr) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Thallium (Tl) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Titane (Ti) | ug | <3 | 3 | | | 1643903 | | | |
| Vanadium (V) | ug | <0.6 | 0.6 | | | 1643903 | | | |
| Zinc (Zn) | ug | 3.3 | 0.3 | | | 1643903 | | | |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| ID Maxxam | | CR4890 | | | CR4897 | | | CR4898 | | |
|------------------------|--------|---|-----|--------|--|-----|--------|--|-----|--------|
| Date d'échantillonnage | | 2016/07/03 | | | 2016/07/03 | | | 2016/07/03 | | |
| # Bordereau | | N/A | | | N/A | | | N/A | | |
| | Unités | 22+23+24- INCINERATEUR- BL | LDR | Lot CQ | 25- INCINERATEUR- B34-BL VT:150ML | LDR | Lot CQ | 27+28- INCINERATEUR- BL VT: | LDR | Lot CQ |

| MÉTAUX | | | | | | | | | | |
|----------------|----|-------|------|---------|-------|------|---------|------|------|---------|
| Aluminium (Al) | ug | 4 | 1 | 1642938 | <2 | 2 | 1643903 | | 2 | 1643903 |
| Antimoine (Sb) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Argent (Ag) | ug | <0.5 | 0.5 | 1642938 | <0.8 | 0.8 | 1643903 | | 0.8 | 1643903 |
| Arsenic (As) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Baryum (Ba) | ug | 0.27 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Béryllium (Be) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Bismuth (Bi) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Bore (B) | ug | 7.2 | 0.2 | 1642938 | <0.3 | 0.3 | 1643903 | | 0.3 | 1643903 |
| Cadmium (Cd) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Calcium (Ca) | ug | <5 | 5 | 1642938 | <8 | 8 | 1643903 | | 8 | 1643903 |
| Chrome (Cr) | ug | 0.5 | 0.1 | 1642938 | 0.3 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Cobalt (Co) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Cuivre (Cu) | ug | 0.5 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Etain (Sn) | ug | <0.5 | 0.5 | 1642938 | 11.6 | 0.8 | 1643903 | | 0.8 | 1643903 |
| Fer (Fe) | ug | 8 | 5 | 1642938 | <8 | 8 | 1643903 | | 8 | 1643903 |
| Lithium (Li) | ug | <1 | 1 | 1642938 | <2 | 2 | 1643903 | | 2 | 1643903 |
| Magnésium (Mg) | ug | 5 | 2 | 1642938 | <3 | 3 | 1643903 | | 3 | 1643903 |
| Manganèse (Mn) | ug | 0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Mercure (Hg) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | <0.9 | 0.9 | 1640322 |
| Molybdène (Mo) | ug | <0.5 | 0.5 | 1642938 | <0.8 | 0.8 | 1643903 | | | |
| Nickel (Ni) | ug | 0.2 | 0.1 | 1642938 | 0.3 | 0.2 | 1643903 | | | |
| Plomb (Pb) | ug | <0.5 | 0.5 | 1642938 | <0.8 | 0.8 | 1643903 | | | |
| Potassium (K) | ug | <10 | 10 | 1642938 | <20 | 20 | 1643903 | | | |
| Sélénium (Se) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | | |
| Silicium (Si) | ug | 51 | 5 | 1642938 | <8 | 8 | 1643903 | | | |
| Sodium (Na) | ug | 131 | 5 | 1642938 | <8 | 8 | 1643903 | | | |
| Strontium (Sr) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | | |
| Thallium (Tl) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | | |
| Titane (Ti) | ug | <1 | 1 | 1642938 | <2 | 2 | 1643903 | | | |
| Vanadium (V) | ug | <0.2 | 0.2 | 1642938 | <0.3 | 0.3 | 1643903 | | | |
| Zinc (Zn) | ug | 5.4 | 0.1 | 1642938 | 1.2 | 0.2 | 1643903 | | | |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (EAU)

| ID Maxxam | | CR4903 | CR4904 | | CR4905 | | CR4906 | | |
|------------------------|--------|--|--|-----|--|-----|--|-----|--------|
| Date d'échantillonnage | | 2016/07/01 | 2016/07/02 | | 2016/07/03 | | 2016/07/03 | | |
| # Bordereau | | N/A | N/A | | N/A | | N/A | | |
| | Unités | 29- INCINERATEUR- BB12-1 VT:203.8ML | 30- INCINERATEUR- BB12-2 VT:195.5ML | LDR | 31- INCINERATEUR- BB12-3 VT:200.5ML | LDR | 32- INCINERATEUR- BB12-BLANC VT:150ML | LDR | Lot CQ |

| MÉTAUX | | | | | | | | | |
|----------------|----|-------|-------|------|------|-----|-------|------|---------|
| Aluminium (Al) | ug | 4 | 5 | 1 | <2 | 2 | <2 | 2 | 1643903 |
| Antimoine (Sb) | ug | <0.1 | <0.1 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Argent (Ag) | ug | <0.5 | <0.5 | 0.5 | <1 | 1 | <0.8 | 0.8 | 1643903 |
| Arsenic (As) | ug | 3.5 | <0.1 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Baryum (Ba) | ug | <0.05 | <0.05 | 0.05 | <0.1 | 0.1 | <0.08 | 0.08 | 1643903 |
| Béryllium (Be) | ug | <0.05 | <0.05 | 0.05 | <0.1 | 0.1 | <0.08 | 0.08 | 1643903 |
| Bismuth (Bi) | ug | <0.05 | <0.05 | 0.05 | <0.1 | 0.1 | <0.08 | 0.08 | 1643903 |
| Bore (B) | ug | 11.0 | 16.0 | 0.2 | 29.3 | 0.4 | 11.3 | 0.3 | 1643903 |
| Cadmium (Cd) | ug | <0.05 | <0.05 | 0.05 | <0.1 | 0.1 | <0.08 | 0.08 | 1643903 |
| Calcium (Ca) | ug | <5 | <5 | 5 | <10 | 10 | <8 | 8 | 1643903 |
| Chrome (Cr) | ug | 146 | <0.1 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Cobalt (Co) | ug | <0.1 | <0.1 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Cuivre (Cu) | ug | 0.3 | 0.3 | 0.1 | <0.2 | 0.2 | 0.2 | 0.2 | 1643903 |
| Etain (Sn) | ug | <0.5 | <0.5 | 0.5 | <1 | 1 | <0.8 | 0.8 | 1643903 |
| Fer (Fe) | ug | 267 | <5 | 5 | <10 | 10 | <8 | 8 | 1643903 |
| Lithium (Li) | ug | <1 | <1 | 1 | <2 | 2 | <2 | 2 | 1643903 |
| Magnésium (Mg) | ug | 37 | <2 | 2 | <4 | 4 | <3 | 3 | 1643903 |
| Manganèse (Mn) | ug | 3.5 | 0.3 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Mercure (Hg) | ug | <0.05 | <0.05 | 0.05 | 0.1 | 0.1 | 0.09 | 0.08 | 1643903 |
| Molybdène (Mo) | ug | <0.5 | <0.5 | 0.5 | <1 | 1 | <0.8 | 0.8 | 1643903 |
| Nickel (Ni) | ug | 0.1 | <0.1 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Plomb (Pb) | ug | <0.5 | <0.5 | 0.5 | <1 | 1 | <0.8 | 0.8 | 1643903 |
| Potassium (K) | ug | 5360 | <10 | 10 | 64 | 20 | 48 | 20 | 1643903 |
| Sélénium (Se) | ug | <0.1 | 0.2 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Silicium (Si) | ug | 8 | 20 | 5 | 20 | 10 | 51 | 8 | 1643903 |
| Sodium (Na) | ug | 476 | 46 | 5 | 309 | 10 | 226 | 8 | 1643903 |
| Strontium (Sr) | ug | <0.1 | <0.1 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Thallium (Tl) | ug | <0.1 | <0.1 | 0.1 | <0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Titane (Ti) | ug | 96 | <1 | 1 | <2 | 2 | <2 | 2 | 1643903 |
| Vanadium (V) | ug | 11.2 | <0.2 | 0.2 | <0.4 | 0.4 | <0.3 | 0.3 | 1643903 |
| Zinc (Zn) | ug | 8.5 | 6.4 | 0.1 | 1.1 | 0.2 | <0.2 | 0.2 | 1643903 |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (EAU)

| | | | | |
|------------------------|---------------|---|------------|---------------|
| ID Maxxam | | CR4906 | | |
| Date d'échantillonnage | | 2016/07/03 | | |
| # Bordereau | | N/A | | |
| | Unités | 32- INCINERATEUR- BB12-BLANC VT:150ML Dup. de Lab. | LDR | Lot CQ |

| MÉTAUX | | | | |
|----------------|----|---------|------|---------|
| Aluminium (Al) | ug | <2 | 2 | 1643903 |
| Antimoine (Sb) | ug | <0.2 | 0.2 | 1643903 |
| Argent (Ag) | ug | <0.8 | 0.8 | 1643903 |
| Arsenic (As) | ug | <0.2 | 0.2 | 1643903 |
| Baryum (Ba) | ug | <0.08 | 0.08 | 1643903 |
| Béryllium (Be) | ug | <0.08 | 0.08 | 1643903 |
| Bismuth (Bi) | ug | <0.08 | 0.08 | 1643903 |
| Bore (B) | ug | 7.3 (1) | 0.3 | 1643903 |
| Cadmium (Cd) | ug | <0.08 | 0.08 | 1643903 |
| Calcium (Ca) | ug | <8 | 8 | 1643903 |
| Chrome (Cr) | ug | <0.2 | 0.2 | 1643903 |
| Cobalt (Co) | ug | <0.2 | 0.2 | 1643903 |
| Cuivre (Cu) | ug | <0.2 | 0.2 | 1643903 |
| Étain (Sn) | ug | <0.8 | 0.8 | 1643903 |
| Fer (Fe) | ug | <8 | 8 | 1643903 |
| Lithium (Li) | ug | <2 | 2 | 1643903 |
| Magnésium (Mg) | ug | <3 | 3 | 1643903 |
| Manganèse (Mn) | ug | <0.2 | 0.2 | 1643903 |
| Mercure (Hg) | ug | <0.08 | 0.08 | 1643903 |
| Molybdène (Mo) | ug | <0.8 | 0.8 | 1643903 |
| Nickel (Ni) | ug | <0.2 | 0.2 | 1643903 |
| Plomb (Pb) | ug | <0.8 | 0.8 | 1643903 |
| Potassium (K) | ug | 43 | 20 | 1643903 |
| Sélénium (Se) | ug | <0.2 | 0.2 | 1643903 |
| Silicium (Si) | ug | 49 | 8 | 1643903 |
| Sodium (Na) | ug | 194 | 8 | 1643903 |
| Strontium (Sr) | ug | <0.2 | 0.2 | 1643903 |
| Thallium (Tl) | ug | <0.2 | 0.2 | 1643903 |
| Titane (Ti) | ug | <2 | 2 | 1643903 |
| Vanadium (V) | ug | <0.3 | 0.3 | 1643903 |

LDR = Limite de détection rapportée
 Lot CQ = Lot contrôle qualité
 Duplicata de laboratoire
 (1) La récupération ou l'écart relatif (RPD) pour ce composé est en dehors des limites de contrôle, mais l'ensemble du contrôle qualité rencontre les critères d'acceptabilité pour cette analyse

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (EAU)

| | | | | |
|--|---------------|---|------------|---------------|
| ID Maxxam | | CR4906 | | |
| Date d'échantillonnage | | 2016/07/03 | | |
| # Bordereau | | N/A | | |
| | Unités | 32- INCINERATEUR- BB12-BLANC VT:150ML Dup. de Lab. | LDR | Lot CQ |
| Zinc (Zn) | ug | <0.2 | 0.2 | 1643903 |
| LDR = Limite de détection rapportée Lot CQ = Lot contrôle qualité Duplicata de laboratoire | | | | |

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

REMARQUES GÉNÉRALES

État des échantillons à l'arrivée: BON

MÉTAUX (SOLUTION BARBOTEUR)

Veillez noter que les résultats n'ont pas été corrigés ni pour la récupération des échantillons de contrôle qualité, ni pour le blanc de méthode. Les limites de détection indiquées sont modifiées en fonction du volume d'échantillon reçu. Les limites de détections indiquées sont multipliées par les facteurs de dilution utilisés pour l'analyse des échantillons. Dû à l'interférence de la matrice, la limite de détection a été augmentée.

MÉTAUX (EAU)

Veillez noter que les résultats n'ont pas été corrigés ni pour la récupération des échantillons de contrôle qualité, ni pour le blanc de méthode.

Les résultats ne se rapportent qu'aux échantillons soumis pour analyse

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

RAPPORT ASSURANCE QUALITÉ

| Lot | AQ/CQ | Init | Type CQ | Groupe | Date Analysé | Valeur | Réc | Unités |
|---------|-------|------|------------------|----------------|--------------|----------|---------|--------|
| 1640322 | MCA | | Blanc fortifié | Mercure (Hg) | 2016/07/26 | | 91 | % |
| 1640322 | MCA | | Blanc de méthode | Mercure (Hg) | 2016/07/26 | <0.05 | | ug |
| 1642938 | EMA | | Blanc fortifié | Aluminium (Al) | 2016/08/05 | | 107 | % |
| | | | | Antimoine (Sb) | 2016/08/05 | | 116 | % |
| | | | | Argent (Ag) | 2016/08/05 | | 99 | % |
| | | | | Arsenic (As) | 2016/08/05 | | 100 | % |
| | | | | Baryum (Ba) | 2016/08/05 | | 116 | % |
| | | | | Béryllium (Be) | 2016/08/05 | | 98 | % |
| | | | | Bismuth (Bi) | 2016/08/05 | | 107 | % |
| | | | | Bore (B) | 2016/08/05 | | 124 (1) | % |
| | | | | Cadmium (Cd) | 2016/08/05 | | 109 | % |
| | | | | Calcium (Ca) | 2016/08/05 | | 95 | % |
| | | | | Cobalt (Co) | 2016/08/05 | | 94 | % |
| | | | | Cuivre (Cu) | 2016/08/05 | | 91 | % |
| | | | | Etain (Sn) | 2016/08/05 | | 120 | % |
| | | | | Fer (Fe) | 2016/08/05 | | 92 | % |
| | | | | Lithium (Li) | 2016/08/05 | | 101 | % |
| | | | | Magnésium (Mg) | 2016/08/05 | | 95 | % |
| | | | | Manganèse (Mn) | 2016/08/05 | | 97 | % |
| | | | | Mercure (Hg) | 2016/08/05 | | 104 | % |
| | | | | Molybdène (Mo) | 2016/08/05 | | 109 | % |
| | | | | Nickel (Ni) | 2016/08/05 | | 94 | % |
| | | | | Plomb (Pb) | 2016/08/05 | | 110 | % |
| | | | | Potassium (K) | 2016/08/05 | | 95 | % |
| | | | | Sélénium (Se) | 2016/08/05 | | 98 | % |
| | | | | Silicium (Si) | 2016/08/05 | | 98 | % |
| | | | | Sodium (Na) | 2016/08/05 | | 107 | % |
| | | | | Strontium (Sr) | 2016/08/05 | | 112 | % |
| | | | | Thallium (Tl) | 2016/08/05 | | 120 | % |
| | | | | Titane (Ti) | 2016/08/05 | | 98 | % |
| | | | | Vanadium (V) | 2016/08/05 | | 97 | % |
| | | | | Zinc (Zn) | 2016/08/05 | | 96 | % |
| 1642938 | EMA | | Blanc de méthode | Aluminium (Al) | 2016/08/05 | 1, LDR=1 | | ug |
| | | | | Antimoine (Sb) | 2016/08/05 | <0.1 | | ug |
| | | | | Argent (Ag) | 2016/08/05 | <0.5 | | ug |
| | | | | Arsenic (As) | 2016/08/05 | <0.1 | | ug |
| | | | | Baryum (Ba) | 2016/08/05 | <0.05 | | ug |
| | | | | Béryllium (Be) | 2016/08/05 | <0.05 | | ug |
| | | | | Bismuth (Bi) | 2016/08/05 | <0.05 | | ug |
| | | | | Bore (B) | 2016/08/05 | 6.0, | | ug |
| | | | | | | LDR=0.2 | | |
| | | | | Cadmium (Cd) | 2016/08/05 | <0.05 | | ug |
| | | | | Calcium (Ca) | 2016/08/05 | <5 | | ug |
| | | | | Cobalt (Co) | 2016/08/05 | <0.1 | | ug |
| | | | | Cuivre (Cu) | 2016/08/05 | <0.1 | | ug |
| | | | | Etain (Sn) | 2016/08/05 | <0.5 | | ug |
| | | | | Fer (Fe) | 2016/08/05 | <5 | | ug |
| | | | | Lithium (Li) | 2016/08/05 | <1 | | ug |
| | | | | Magnésium (Mg) | 2016/08/05 | <2 | | ug |
| | | | | Manganèse (Mn) | 2016/08/05 | <0.1 | | ug |
| | | | | Mercure (Hg) | 2016/08/05 | <0.05 | | ug |
| | | | | Molybdène (Mo) | 2016/08/05 | <0.5 | | ug |

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

RAPPORT ASSURANCE QUALITÉ (SUITE)

| Lot | AQ/CQ | Init | Type CQ | Groupe | Date Analysé | Valeur | Réc | Unités |
|---------|-------|------|------------------|----------------|--------------|----------|---------|--------|
| | | | | Nickel (Ni) | 2016/08/05 | <0.1 | | ug |
| | | | | Plomb (Pb) | 2016/08/05 | <0.5 | | ug |
| | | | | Potassium (K) | 2016/08/05 | <10 | | ug |
| | | | | Sélénium (Se) | 2016/08/05 | <0.1 | | ug |
| | | | | Silicium (Si) | 2016/08/05 | <5 | | ug |
| | | | | Sodium (Na) | 2016/08/05 | 26,LDR=5 | | ug |
| | | | | Strontium (Sr) | 2016/08/05 | <0.1 | | ug |
| | | | | Thallium (Tl) | 2016/08/05 | <0.1 | | ug |
| | | | | Titane (Ti) | 2016/08/05 | <1 | | ug |
| | | | | Vanadium (V) | 2016/08/05 | <0.2 | | ug |
| | | | | Zinc (Zn) | 2016/08/05 | 0.4, | | ug |
| | | | | | | LDR=0.1 | | |
| 1643903 | EMA | | Blanc fortifié | Aluminium (Al) | 2016/08/04 | | 104 | % |
| | | | | Antimoine (Sb) | 2016/08/04 | | 117 | % |
| | | | | Argent (Ag) | 2016/08/04 | | 94 | % |
| | | | | Arsenic (As) | 2016/08/04 | | 109 | % |
| | | | | Baryum (Ba) | 2016/08/04 | | 104 | % |
| | | | | Béryllium (Be) | 2016/08/04 | | 100 | % |
| | | | | Bismuth (Bi) | 2016/08/04 | | 113 | % |
| | | | | Bore (B) | 2016/08/04 | | 103 | % |
| | | | | Cadmium (Cd) | 2016/08/04 | | 111 | % |
| | | | | Calcium (Ca) | 2016/08/04 | | 104 | % |
| | | | | Chrome (Cr) | 2016/08/04 | | 103 | % |
| | | | | Cobalt (Co) | 2016/08/04 | | 105 | % |
| | | | | Cuivre (Cu) | 2016/08/04 | | 106 | % |
| | | | | Etain (Sn) | 2016/08/04 | | 118 | % |
| | | | | Fer (Fe) | 2016/08/04 | | 105 | % |
| | | | | Lithium (Li) | 2016/08/04 | | 101 | % |
| | | | | Magnésium (Mg) | 2016/08/04 | | 102 | % |
| | | | | Manganèse (Mn) | 2016/08/04 | | 106 | % |
| | | | | Mercure (Hg) | 2016/08/04 | | 105 | % |
| | | | | Molybdène (Mo) | 2016/08/04 | | 111 | % |
| | | | | Nickel (Ni) | 2016/08/04 | | 107 | % |
| | | | | Plomb (Pb) | 2016/08/04 | | 112 | % |
| | | | | Potassium (K) | 2016/08/04 | | 94 | % |
| | | | | Sélénium (Se) | 2016/08/04 | | 104 | % |
| | | | | Silicium (Si) | 2016/08/04 | | 105 | % |
| | | | | Sodium (Na) | 2016/08/04 | | 103 | % |
| | | | | Strontium (Sr) | 2016/08/04 | | 117 | % |
| | | | | Thallium (Tl) | 2016/08/04 | | 128 (1) | % |
| | | | | Titane (Ti) | 2016/08/04 | | 104 | % |
| | | | | Vanadium (V) | 2016/08/04 | | 105 | % |
| | | | | Zinc (Zn) | 2016/08/04 | | 107 | % |
| 1643903 | EMA | | Blanc de méthode | Aluminium (Al) | 2016/08/04 | <1 | | ug |
| | | | | Antimoine (Sb) | 2016/08/04 | <0.1 | | ug |
| | | | | Argent (Ag) | 2016/08/04 | <0.5 | | ug |
| | | | | Arsenic (As) | 2016/08/04 | <0.1 | | ug |
| | | | | Baryum (Ba) | 2016/08/04 | <0.05 | | ug |
| | | | | Béryllium (Be) | 2016/08/04 | <0.05 | | ug |
| | | | | Bismuth (Bi) | 2016/08/04 | <0.05 | | ug |
| | | | | Bore (B) | 2016/08/04 | <0.2 | | ug |
| | | | | Cadmium (Cd) | 2016/08/04 | <0.05 | | ug |

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

RAPPORT ASSURANCE QUALITÉ (SUITE)

| Lot | AQ/CQ | Init | Type CQ | Groupe | Date Analysé | Valeur | Réc | Unités |
|-----|-------|------|---------|----------------|--------------|---------|-----|--------|
| | | | | Calcium (Ca) | 2016/08/04 | <5 | | ug |
| | | | | Chrome (Cr) | 2016/08/04 | <0.1 | | ug |
| | | | | Cobalt (Co) | 2016/08/04 | <0.1 | | ug |
| | | | | Cuivre (Cu) | 2016/08/04 | <0.1 | | ug |
| | | | | Etain (Sn) | 2016/08/04 | <0.5 | | ug |
| | | | | Fer (Fe) | 2016/08/04 | <5 | | ug |
| | | | | Lithium (Li) | 2016/08/04 | <1 | | ug |
| | | | | Magnésium (Mg) | 2016/08/04 | <2 | | ug |
| | | | | Manganèse (Mn) | 2016/08/04 | <0.1 | | ug |
| | | | | Mercure (Hg) | 2016/08/04 | <0.05 | | ug |
| | | | | Molybdène (Mo) | 2016/08/04 | <0.5 | | ug |
| | | | | Nickel (Ni) | 2016/08/04 | <0.1 | | ug |
| | | | | Plomb (Pb) | 2016/08/04 | <0.5 | | ug |
| | | | | Potassium (K) | 2016/08/04 | <10 | | ug |
| | | | | Sélénium (Se) | 2016/08/04 | <0.1 | | ug |
| | | | | Silicium (Si) | 2016/08/04 | <5 | | ug |
| | | | | Sodium (Na) | 2016/08/04 | <5 | | ug |
| | | | | Strontium (Sr) | 2016/08/04 | <0.1 | | ug |
| | | | | Thallium (Tl) | 2016/08/04 | <0.1 | | ug |
| | | | | Titane (Ti) | 2016/08/04 | <1 | | ug |
| | | | | Vanadium (V) | 2016/08/04 | <0.2 | | ug |
| | | | | Zinc (Zn) | 2016/08/04 | 0.1, | | ug |
| | | | | | | LDR=0.1 | | |

LDR = Limite de détection rapportée

Blanc fortifié: Un blanc, d'une matrice exempte de contaminants, auquel a été ajouté une quantité connue d'analyte provenant généralement d'une deuxième source. Utilisé pour évaluer la précision de la méthode.

Blanc de méthode: Une partie aliquote de matrice pure soumise au même processus analytique que les échantillons, du prétraitement au dosage. Sert à évaluer toutes contaminations du laboratoire.

Réc = Récupération

(1) La récupération ou l'écart relatif (RPD) pour ce composé est en dehors des limites de contrôle, mais l'ensemble du contrôle qualité rencontre les critères d'acceptabilité pour cette analyse

Dossier Maxxam: B646964
Date du rapport: 2016/08/09

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

PAGE DES SIGNATURES DE VALIDATION

Les résultats analytiques ainsi que les données de contrôle-qualité contenus dans ce rapport furent vérifiés et validés par les personnes suivantes:




Miryam Assayag, B.Sc. Chimiste

Maria Chrifi Alaoui, B.Sc., Chimiste

Maxxam a mis en place des procédures qui protègent contre l'utilisation non autorisée de la signature électronique et emploie les «signataires» requis, conformément à la section 5.10.2 de la norme ISO/CEI 17025:2005(E). Veuillez vous référer à la page des signatures de validation pour obtenir les détails des validations pour chaque division.

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

LABORATOIRE RESPONSABLE DES ANALYSES :

Maxxim
889 Montée de Liesse
Ville St-Laurent (Qc) H4T 1P5
Téléphone : (514) 448-9001
Télécopieur : (514) 448-5922

Projet #:

Chargé de Projet :

B646964

| ECHANTILLON | Matrice | Fraction | Qty | Date | Paramètres | Unité | Remarque |
|-----------------------------------|--------------------|------------------------|-----|------------|------------|-------|---|
| 1 - Incinérateur - BS-Acétone - 1 | Acétone | BS-Acétone | 1 | 2016-07-01 | Métaux, Hg | mg | Combiner les échantillons 1 à 3 pour les métaux particuliers de la source Biomasse - Essai #1 |
| 2 - Incinérateur - BS-HNO3 - 1 | HNO3 | BS-HNO3 | 1 | 2016-07-01 | Métaux, Hg | mg | |
| 3 - Incinérateur - Filtre - 1 | Filtre | Poids avant : 0.549 gr | 1 | 2016-07-01 | Métaux, Hg | mg | Combiner les échantillons 1 à 3 pour les métaux particuliers de la source Biomasse - Essai #1 |
| 4 - Incinérateur - B34 - 1 | H2O2 10% / HNO3 5% | B34 - Vt: 383.9 mL | 1 | 2016-07-01 | Métaux, Hg | mg | |
| 5 - Incinérateur - B5 - 1 | HNO3 | B5 - Vt: 21 mL | 1 | 2016-07-01 | Hg | mg | |
| 6 - Incinérateur - B67 - 1 | KMNO4 4%/H2SO4 10% | B67 - Vt: 411.1 mL | 1 | 2016-07-01 | Hg | mg | Combiner les échantillons 6 et 7 pour le Hg de la source Biomasse- Essai #1 |
| 7 - Incinérateur - B67-HCl - 1 | HCl | B67-HCl - Vt: 125 mL | 1 | 2016-07-01 | Hg | mg | Combiner les échantillons 6 et 7 pour le Hg de la source Biomasse- Essai #1 |

REMIS PAR:

REÇU PAR: *R. Caberas*

DATE: 2016-07-07 HEURE: 16:20

DATE: *16-07-16* HEURE:

Page 1 de 3

livreur maxxim

To: 17, 18, 18 ICE: yes scal: no

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

Projet # : _____

Chargé de Projet : _____

LABORATOIRE RESPONSABLE DES ANALYSES
 Maxxim
 889 Montée de Liesse
 Ville St-Laurent (Qc) H4T 1P5
 Téléphone : (514) 448-9001
 Télécopieur : (514) 448-5922

| ECHANTILLON | Matrice | Fraction | Qty | Date | Paramètres | Unité | Remarque |
|-----------------------------------|--------------------|------------------------|-----|------------|------------|-------|--|
| 8 - Incinérateur - BS-Acétone - 2 | Acétone | BS-Acétone | 1 | 2016-07-02 | Métaux, Hg | mg | Combiner les échantillons 8 à 10 pour les métaux particuliers de la source Biomasse - Essai #2 |
| 9 - Incinérateur - BS-HNO3 - 2 | HNO3 | BS-HNO3 | 1 | 2016-07-02 | Métaux, Hg | mg | |
| 10 - Incinérateur - Filtre - 2 | Filtre | Poids avant : 0.536 gr | 1 | 2016-07-02 | Métaux, Hg | mg | Combiner les échantillons 8 à 10 pour les métaux particuliers de la source Biomasse - Essai #2 |
| 11 - Incinérateur - B34 - 2 | H2O2 10% / HNO3 5% | B34 - Vt: 306.4 mL | 1 | 2016-07-02 | Métaux, Hg | mg | |
| 12 - Incinérateur - B5 - 2 | HNO3 | B5 - Vt: 20.2 mL | 1 | 2016-07-02 | Hg | mg | |
| 13 - Incinérateur - B67 - 2 | KMNO4 4%/H2SO4 10% | B67 - Vt: 397.5 mL | 1 | 2016-07-02 | Hg | mg | Combiner les échantillons 13 et 14 pour le Hg de la source Biomasse - Essai #2 |
| 14 - Incinérateur - B67-HCl - 2 | HCl | B67-HCl - Vt: 125 mL | 1 | 2016-07-02 | Hg | mg | Combiner les échantillons 13 et 14 pour le Hg de la source Four 1 - Essai #2 |

REMISSÉ PAR: *R. Cabecus*
 REÇU PAR: *R. Cabecus*

DATE: 20160707 HEURE: 16:20

Page 2 de 5

Maxxim

T°: 17, 18, 18

*Ice: yes
 Seal: no*

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

Projet # : _____

Chargé de Projet : _____

LABORATOIRE RESPONSABLE DES ANALYSES :

Maxam
889 Montée de Liesse
Ville St-Laurent (Cq) H4T 1P5
Téléphone : (514) 448-9001
Télécopieur : (514) 448-5922

| ECHANTILLON | Matrice | Fraction | Qty | Date | Paramètres | Unité | Remarque |
|------------------------------------|----------------------|-------------------------|-----|------------|------------|-------|---|
| 15 - Incinérateur - BS-Acétone - 3 | Acétone | BS-Acétone | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 15 à 17 pour les métaux particuliers de la source Biomasse - Essai #3 |
| 16 - Incinérateur - BS-HNO3 - 3 | HNO3 | BS-HNO3 | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 17 - Incinérateur - Filtre - 3 | Filtre | Poids avant : 0.5348 gr | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 15 à 17 pour les métaux particuliers de la source Biomasse - Essai #3 |
| 18 - Incinérateur - B34 - 3 | H2O2 10% / HNO3 5% | B34 - Vt: 310.3 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 19 - Incinérateur - B5 - 3 | HNO3 | B5 - Vt: 20.5 mL | 1 | 2016-07-03 | Hg | mg | |
| 20 - Incinérateur - B67 - 3 | KMNO4 4% / H2SO4 10% | B67 - Vt: 400.5 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 20 et 21 pour le Hg de la source Biomasse - Essai #3 |
| 21 - Incinérateur - B67-HCl - 3 | HCl | B67-HCl - Vt: 125 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 20 et 21 pour le Hg de la source Biomasse - Essai #3 |

REMIS PAR: *RV R Cabezas*
REÇU PAR: _____

DATE: _____ HEURE: _____
DATE: *2016-07-07* HEURE: *16:20*

Page 3 de 5

Maxam

T0:17,18,18

Iceys Seal: no

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

Projet # : _____

Chargé de Projet : _____

LABORATOIRE RESPONSABLE DES ANALYSES

Maxxam
889 Montée de Liesse
Ville St-Laurent (Qc) H4T 1P5
Téléphone : (514) 448-9001
Télécopieur : (514) 448-5922

| ECHANTILLON | Matrice | Fraction | Qte | Date | Paramètres | Unité | Remarque |
|-------------------------------------|--------------------|-------------------------|-----|------------|------------|-------|--|
| 22 - Incinérateur - BS-Acétone - BL | Acétone | BS-Acétone | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 22 à 24 pour les métaux particulaires de la source Biomasse - Essai #1 |
| 23 - Incinérateur - BS-HNO3 - BL | HNO3 | BS-HNO3 | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 24 - Incinérateur - Filtre - BL | Filtre | Poids avant : 0.5306 gr | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 22 à 24 pour les métaux particulaires de la Biomasse - Essai #1 |
| 25 - Incinérateur - B34 - BL | H2O2 10% / HNO3 5% | B34 - Vt: 150 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 27 - Incinérateur - B67 - BL | KMNO4 4%/H2SO4 10% | B67 - Vt: 150 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 27 et 28 pour le Hg de la source Biomasse- Essai #1 |
| 28 - Incinérateur - B67-HCl - BL | HCl | B67-HCl - Vt: 200 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 27 et 28 pour le Hg de la source Biomasse - Essai #1 |
| 29 - Incinérateur - BB12 - T | H2O | BB12 - Vt: 203.8 mL | 1 | 2016-07-01 | Métaux, Hg | mg | |

REMISS PAR: *ERV R. Cabecas*
RECU PAR: _____

DATE: _____ HEURE: _____
DATE: 20160707 HEURE: 16.20

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livreur maxxam

*T0: 17, 18, 18
ICC: 403
Scal: No*

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

LABORATOIRE RESPONSABLE DES ANALYSES : Maxxim

Projet # : _____

889 Montée de Liesse
Ville St-Laurent (Qc) H4T 1P5
Téléphone : (514) 448-9001
Télécopieur : (514) 448-5922

Chargé de Projet : _____

| ECHANTILLON | Matrice | Fraction | Qte | Date | Paramètres | Unité | Remarque |
|----------------------------------|---------|---------------------|-----|------------|------------|-------|----------|
| 30 - Incinérateur - BB12 - 2 | H2O | BB12 - Vt: 195.5 mL | 1 | 2016-07-02 | Métaux, Hg | mg | |
| 31 - Incinérateur - BB12 - 3 | H2O | BB12 - Vt: 200.5 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 32 - Incinérateur - BB12 - Blanc | H2O | BB12 - Vt: 150 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMIS PAR: *RTV R. Cabezas*
REÇU PAR:

DATE: 2016-07-07 HEURE: 16:20

Page 5 de 5
Ioc: yes seal: y10
T: 17, 18, 18

Repentigny, le mercredi 6 juillet 2016

Mme Lorena DiBenedetto
Maxxam
Montréal (Qc)
Tél : (514) 448-9001 p. 6262
Courriel : ldibenedetto@maxxam.ca

Objet : Explications de la demande d'analyse pour le projet de AEM (Meadowbank).

Notre no de projet : 4411

Bonjour Lorena,

Voici la demande d'analyse concernant le dossier mentionné précédemment. Les mesures ont été effectuées du 1 au 3 juillet 2016. Les paramètres ciblés sont les métaux.

MÉTAUX

Les 8 échantillons suivants vous seront acheminés par un second envoi, par notre laboratoire, d'ici quelques jours :

Filtres : #3, 10, 17 et 24
Buse et sonde : #1, 8, 15, et 22.

Faire un composite des métaux pour les échantillons de filtres, BS-acétone et BS-HNO₃ (ex. éch.# 1, 2 et 3).

Faire un composite du mercure des échantillons B67 et B67-HCl (ex. éch # 6 et 7). À noter qu'il y a une nouvelle fraction à analyser, soit le BB5, à faire analyser seul pour le mercure.

Prendre en considération que les fractions B12 sont à la fin de la chaîne de responsabilité ; échantillons #29 relié à l'essai 1, # 30 à l'essai 2, #31 à l'essai 3 et #32 au blanc.

www.consul-air.com

Siège Social : 2022 Lavoisier, local 125 Québec (Québec) Téléphone : (418) 650-5960 1-866-5989-AIR Télécopieur : (418) 704-2221
Bureau de Montréal : 500, Leclerc, Repentigny (Québec) Téléphone : (450) 654-8000 Télécopieur : (450) 654-6730

La liste des métaux est la suivante :

Al, Sb, Ag, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Sn, Fe, Li, Mg, Mn, Mo, Ni, Pb, K, Se, Na, Ti, V, Zn, Sr, Ti, Si (Silicium soluble),
Hg

Il est important de ne pas jeter les échantillons et de nous les retourner après l'analyse.

Pour des renseignements supplémentaires n'hésitez pas à communiquer avec nous.

Le chargé de projet est Simon Demers

Salutations,

Simon Demers
Consular

www.consul-air.com

Siège Social : 2022, Lavoisier, local 125 Québec (Québec) Téléphone : (418) 650-5950 1-866-6969-AIR Télécopieur : (418) 704-2221
Bureau de Montréal : 600, Leclerc, Repentigny (Québec) Téléphone : (450) 654-8000 Télécopieur : (450) 654-6730

Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK
Votre # Bordereau: N/A

Attention: Simon Demers

CONSULAIR INC.
2022 Lavoisier
Local 125
Québec, QC
Canada G1N 4L5

Date du rapport: 2016/08/10
Rapport: R2175619
Version: 2 - Révisé

CERTIFICAT D'ANALYSE – RÉVISÉ

DE DOSSIER MAXXAM: B646964

Reçu: 2016/07/07, 04:20

Matrice: Solution barboteur
Nombre d'échantillons reçus: 15

| Analyses | Quantité | Date de l' | Date | Méthode de laboratoire | Référence Primaire |
|----------------------|----------|------------|------------|------------------------|--------------------|
| | | extraction | Analysé | | |
| Mercure par AAVF* | 4 | 2016/07/25 | 2016/07/26 | STL SOP-00042 | MA200-Hg 1.1 R1 m |
| Métaux extractibles* | 4 | 2016/07/29 | 2016/08/05 | STL SOP-00006 | MA200-Mét 1.2 R5 m |
| Métaux extractibles* | 7 | 2016/08/02 | 2016/08/04 | STL SOP-00006 | MA200-Mét 1.2 R5 m |

Matrice: EAU
Nombre d'échantillons reçus: 4

| Analyses | Quantité | Date de l' | Date | Méthode de laboratoire | Référence Primaire |
|----------------------|----------|------------|------------|------------------------|--------------------|
| | | extraction | Analysé | | |
| Métaux extractibles* | 1 | 2016/08/02 | 2016/08/04 | STL SOP-00006 | MA200-Mét 1.2 R5 m |
| Métaux extractibles* | 2 | 2016/08/02 | 2016/08/05 | STL SOP-00006 | MA200-Mét 1.2 R5 m |
| Métaux extractibles* | 1 | 2016/08/02 | 2016/08/09 | STL SOP-00006 | MA200-Mét 1.2 R5 m |

Lorsque la méthode de référence comprend un suffixe « m », cela signifie que la méthode d'analyse du laboratoire contient des modifications validées et appliquées afin d'améliorer la performance de la méthode de référence.

Notez: Les données brutes sont utilisées pour le calcul du RPD (% d'écart relatif). L'arrondissement des résultats finaux peut expliquer la variation apparente.

* Maxxam détient l'accréditation pour cette analyse selon le programme du MDDELCC.

clé de cryptage

Veuillez adresser toute question concernant ce certificat d'analyse à votre chargé(e) de projets
Benoît Saumure, M.Sc., chimiste, Chargé de projets
Courriel: Bsaumure@maxxam.ca
Téléphone (514)448-9001 Ext:6281

Maxxam a mis en place des procédures qui protègent contre l'utilisation non autorisée de la signature électronique et emploie les « signataires » requis, conformément à la section 5.10.2 de la norme ISO/CEI 17025:2005(E). Veuillez vous référer à la page des signatures de validation pour obtenir les détails des validations pour chaque division.

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| | | | | | | | | | |
|------------------------|--------|----------------------|-----|--------|--|-----|-------------------------------------|-----|--------|
| ID Maxxam | | CR3132 | | | CR3164 | | CR3165 | | |
| Date d'échantillonnage | | 2016/07/01 | | | 2016/07/01 | | 2016/07/01 | | |
| # Bordereau | | N/A | | | N/A | | N/A | | |
| | Unités | 1+2+3-INCINERATEUR-1 | LDR | Lot CQ | 4- INCINERATEUR- B34-1 VT:383.9ML | LDR | 5- INCINERATEUR- B5-1 VT:21ML | LDR | Lot CQ |

| MÉTAUX | | | | | | | | | |
|-------------------------------------|----|-------|------|---------|------|-----|-------|------|---------|
| Aluminium (Al) | ug | 71 | 1 | 1642938 | 4 | 4 | | 4 | 1643903 |
| Antimoine (Sb) | ug | 38.1 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Argent (Ag) | ug | 1.5 | 0.5 | 1642938 | <2 | 2 | | 2 | 1643903 |
| Arsenic (As) | ug | 2.2 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Baryum (Ba) | ug | 1.90 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Béryllium (Be) | ug | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Bismuth (Bi) | ug | 1.36 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Bore (B) | ug | 17.4 | 0.2 | 1642938 | 6.6 | 0.8 | | 0.8 | 1643903 |
| Cadmium (Cd) | ug | 2.80 | 0.05 | 1642938 | <0.2 | 0.2 | | 0.2 | 1643903 |
| Calcium (Ca) | ug | 16000 | 5 | 1642938 | <20 | 20 | | 20 | 1643903 |
| Chrome (Cr) | ug | 23.0 | 0.1 | 1642938 | 1.0 | 0.4 | | 0.4 | 1643903 |
| Cobalt (Co) | ug | <0.1 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Cuivre (Cu) | ug | 47.2 | 0.1 | 1642938 | 0.6 | 0.4 | | 0.4 | 1643903 |
| Etain (Sn) | ug | 117 | 0.5 | 1642938 | 22 | 2 | | 2 | 1643903 |
| Fer (Fe) | ug | 140 | 5 | 1642938 | <20 | 20 | | 20 | 1643903 |
| Lithium (Li) | ug | 21 | 1 | 1642938 | <4 | 4 | | 4 | 1643903 |
| Magnésium (Mg) | ug | 120 | 2 | 1642938 | <8 | 8 | | 8 | 1643903 |
| Manganèse (Mn) | ug | 4.1 | 0.1 | 1642938 | <0.4 | 0.4 | | 0.4 | 1643903 |
| Mercure (Hg) | ug | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | <0.01 | 0.01 | 1643903 |
| Molybdène (Mo) | ug | 60.8 | 0.5 | 1642938 | <2 | 2 | | | 1643903 |
| Nickel (Ni) | ug | 1.5 | 0.1 | 1642938 | 1.0 | 0.4 | | | 1643903 |
| Plomb (Pb) | ug | 59.4 | 0.5 | 1642938 | <2 | 2 | | | 1643903 |
| Potassium (K) | ug | 7680 | 10 | 1642938 | <40 | 40 | | | 1643903 |
| Sélénium (Se) | ug | 0.9 | 0.1 | 1642938 | <0.4 | 0.4 | | | 1643903 |
| Silicium (Si) | ug | 555 | 5 | 1642938 | 37 | 20 | | | 1643903 |
| Sodium (Na) | ug | 4460 | 5 | 1642938 | <20 | 20 | | | 1643903 |
| Strontium (Sr) | ug | 6.7 | 0.1 | 1642938 | <0.4 | 0.4 | | | 1643903 |
| Thallium (Tl) | ug | <0.1 | 0.1 | 1642938 | <0.4 | 0.4 | | | 1643903 |
| Titane (Ti) | ug | 4 | 1 | 1642938 | <4 | 4 | | | 1643903 |
| Vanadium (V) | ug | 0.8 | 0.2 | 1642938 | <0.8 | 0.8 | | | 1643903 |
| Zinc (Zn) | ug | 2310 | 0.1 | 1642938 | 13.8 | 0.4 | | | 1643903 |
| LDR = Limite de détection rapportée | | | | | | | | | |
| Lot CQ = Lot contrôle qualité | | | | | | | | | |

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| ID Maxxam | | CR3167 | | | CR4873 | | | CR4875 | | |
|------------------------|--------|--|-----|--------|-----------------------|-----|--------|---|-----|--------|
| Date d'échantillonnage | | 2016/07/01 | | | 2016/07/02 | | | 2016/07/02 | | |
| # Bordereau | | N/A | | | N/A | | | N/A | | |
| | Unités | 6+7- INCINERATEUR- B67-1 VT:536.1ML | LDR | Lot CQ | 8+9+10-INCINERATEUR-2 | LDR | Lot CQ | 11- INCINERATEUR- B34-2 VT:306.4ML | LDR | Lot CQ |

MÉTAUX

| | | | | | | | | | | |
|----------------|----|------|-----|---------|-------|------|---------|------|-----|---------|
| Aluminium (Al) | ug | | 4 | 1643903 | 56 | 1 | 1642938 | 3 | 3 | 1643903 |
| Antimoine (Sb) | ug | | 0.4 | 1643903 | 20.0 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Argent (Ag) | ug | | 2 | 1643903 | 1.0 | 0.5 | 1642938 | <2 | 2 | 1643903 |
| Arsenic (As) | ug | | 0.4 | 1643903 | 1.2 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Baryum (Ba) | ug | | 0.2 | 1643903 | 1.49 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Béryllium (Be) | ug | | 0.2 | 1643903 | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Bismuth (Bi) | ug | | 0.2 | 1643903 | 1.09 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Bore (B) | ug | | 0.8 | 1643903 | 22.9 | 0.2 | 1642938 | 2.0 | 0.6 | 1643903 |
| Cadmium (Cd) | ug | | 0.2 | 1643903 | 1.32 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Calcium (Ca) | ug | | 20 | 1643903 | 11100 | 5 | 1642938 | <20 | 20 | 1643903 |
| Chrome (Cr) | ug | | 0.4 | 1643903 | 14.7 | 0.1 | 1642938 | 0.5 | 0.3 | 1643903 |
| Cobalt (Co) | ug | | 0.4 | 1643903 | 0.8 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Cuivre (Cu) | ug | | 0.4 | 1643903 | 45.8 | 0.1 | 1642938 | 1.3 | 0.3 | 1643903 |
| Etain (Sn) | ug | | 2 | 1643903 | 78.5 | 0.5 | 1642938 | 15 | 2 | 1643903 |
| Fer (Fe) | ug | | 20 | 1643903 | 183 | 5 | 1642938 | <20 | 20 | 1643903 |
| Lithium (Li) | ug | | 4 | 1643903 | 11 | 1 | 1642938 | <3 | 3 | 1643903 |
| Magnésium (Mg) | ug | | 8 | 1643903 | 86 | 2 | 1642938 | <6 | 6 | 1643903 |
| Manganèse (Mn) | ug | | 0.4 | 1643903 | 3.8 | 0.1 | 1642938 | 0.4 | 0.3 | 1643903 |
| Mercure (Hg) | ug | <0.3 | 0.3 | 1640322 | <0.05 | 0.05 | 1642938 | <0.2 | 0.2 | 1643903 |
| Molybdène (Mo) | ug | | | | 67.8 | 0.5 | 1642938 | <2 | 2 | 1643903 |
| Nickel (Ni) | ug | | | | 118 | 0.1 | 1642938 | 0.4 | 0.3 | 1643903 |
| Plomb (Pb) | ug | | | | 52.7 | 0.5 | 1642938 | <2 | 2 | 1643903 |
| Potassium (K) | ug | | | | 5740 | 10 | 1642938 | <30 | 30 | 1643903 |
| Sélénium (Se) | ug | | | | 1.8 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Silicium (Si) | ug | | | | 320 | 5 | 1642938 | 21 | 20 | 1643903 |
| Sodium (Na) | ug | | | | 3130 | 5 | 1642938 | <20 | 20 | 1643903 |
| Strontium (Sr) | ug | | | | 5.2 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Thallium (Tl) | ug | | | | <0.1 | 0.1 | 1642938 | <0.3 | 0.3 | 1643903 |
| Titane (Ti) | ug | | | | 4 | 1 | 1642938 | <3 | 3 | 1643903 |
| Vanadium (V) | ug | | | | 0.5 | 0.2 | 1642938 | <0.6 | 0.6 | 1643903 |
| Zinc (Zn) | ug | | | | 3110 | 0.1 | 1642938 | 4.7 | 0.3 | 1643903 |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| | | | | | | | | | | |
|------------------------|--------|---|-----|--------|--|-----|--------|---------------------------------|-----|--------|
| ID Maxxam | | CR4876 | | | CR4877 | | | CR4883 | | |
| Date d'échantillonnage | | 2016/07/02 | | | 2016/07/02 | | | 2016/07/03 | | |
| # Bordereau | | N/A | | | N/A | | | N/A | | |
| | Unités | 12- INCINERATEUR- B5-2 VT:20.2ML | LDR | Lot CQ | 13+14- INCINERATEUR- B67-2 VT:522.5ML | LDR | Lot CQ | 15+16+17- INCINERATEUR- 3 | LDR | Lot CQ |

MÉTAUX

| | | | | | | | | | | |
|----------------|----|-------|------|---------|------|-----|---------|-------|------|---------|
| Aluminium (Al) | ug | | 3 | 1643903 | | 3 | 1643903 | 112 | 1 | 1642938 |
| Antimoine (Sb) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 31.3 | 0.1 | 1642938 |
| Argent (Ag) | ug | | 2 | 1643903 | | 2 | 1643903 | 1.1 | 0.5 | 1642938 |
| Arsenic (As) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 1.5 | 0.1 | 1642938 |
| Baryum (Ba) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | 2.48 | 0.05 | 1642938 |
| Béryllium (Be) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | <0.05 | 0.05 | 1642938 |
| Bismuth (Bi) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | 0.85 | 0.05 | 1642938 |
| Bore (B) | ug | | 0.6 | 1643903 | | 0.6 | 1643903 | 50.9 | 0.2 | 1642938 |
| Cadmium (Cd) | ug | | 0.2 | 1643903 | | 0.2 | 1643903 | 1.61 | 0.05 | 1642938 |
| Calcium (Ca) | ug | | 20 | 1643903 | | 20 | 1643903 | 30000 | 5 | 1642938 |
| Chrome (Cr) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 16.8 | 0.1 | 1642938 |
| Cobalt (Co) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 0.1 | 0.1 | 1642938 |
| Cuivre (Cu) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 78.8 | 0.1 | 1642938 |
| Etain (Sn) | ug | | 2 | 1643903 | | 2 | 1643903 | 98.0 | 0.5 | 1642938 |
| Fer (Fe) | ug | | 20 | 1643903 | | 20 | 1643903 | 159 | 5 | 1642938 |
| Lithium (Li) | ug | | 3 | 1643903 | | 3 | 1643903 | 16 | 1 | 1642938 |
| Magnésium (Mg) | ug | | 6 | 1643903 | | 6 | 1643903 | 195 | 2 | 1642938 |
| Manganèse (Mn) | ug | | 0.3 | 1643903 | | 0.3 | 1643903 | 4.1 | 0.1 | 1642938 |
| Mercure (Hg) | ug | <0.01 | 0.01 | 1643903 | <0.3 | 0.3 | 1640322 | <0.05 | 0.05 | 1642938 |
| Molybdène (Mo) | ug | | | 1643903 | | | | 47.4 | 0.5 | 1642938 |
| Nickel (Ni) | ug | | | 1643903 | | | | 2.7 | 0.1 | 1642938 |
| Plomb (Pb) | ug | | | 1643903 | | | | 50.7 | 0.5 | 1642938 |
| Potassium (K) | ug | | | 1643903 | | | | 7450 | 10 | 1642938 |
| Sélénium (Se) | ug | | | 1643903 | | | | 1.7 | 0.1 | 1642938 |
| Silicium (Si) | ug | | | 1643903 | | | | 588 | 5 | 1642938 |
| Sodium (Na) | ug | | | 1643903 | | | | 4000 | 5 | 1642938 |
| Strontium (Sr) | ug | | | 1643903 | | | | 12.7 | 0.1 | 1642938 |
| Thallium (Tl) | ug | | | 1643903 | | | | <0.1 | 0.1 | 1642938 |
| Titane (Ti) | ug | | | 1643903 | | | | 7 | 1 | 1642938 |
| Vanadium (V) | ug | | | 1643903 | | | | 0.9 | 0.2 | 1642938 |
| Zinc (Zn) | ug | | | 1643903 | | | | 9050 | 0.1 | 1642938 |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| ID Maxxam | | CR4884 | | CR4885 | | | CR4886 | | |
|------------------------|--------|---|-----|---|-----|--------|--|-----|--------|
| Date d'échantillonnage | | 2016/07/03 | | 2016/07/03 | | | 2016/07/03 | | |
| # Bordereau | | N/A | | N/A | | | N/A | | |
| | Unités | 18- INCINERATEUR- B34-3 VT:310.3ML | LDR | 19- INCINERATEUR- B5-3 VT:20.5ML | LDR | Lot CQ | 20+21- INCINERATEUR- B67-3 VT:525.5ML | LDR | Lot CQ |

| MÉTAUX | | | | | | | | | |
|-------------------------------------|----|------|-----|-------|------|---------|------|-----|---------|
| Aluminium (Al) | ug | 3 | 3 | | 3 | 1643903 | | 3 | 1643903 |
| Antimoine (Sb) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Argent (Ag) | ug | <2 | 2 | | 2 | 1643903 | | 2 | 1643903 |
| Arsenic (As) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Baryum (Ba) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Béryllium (Be) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Bismuth (Bi) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Bore (B) | ug | 1.5 | 0.6 | | 0.6 | 1643903 | | 0.6 | 1643903 |
| Cadmium (Cd) | ug | <0.2 | 0.2 | | 0.2 | 1643903 | | 0.2 | 1643903 |
| Calcium (Ca) | ug | <20 | 20 | | 20 | 1643903 | | 20 | 1643903 |
| Chrome (Cr) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Cobalt (Co) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Cuivre (Cu) | ug | 0.4 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Etain (Sn) | ug | 15 | 2 | | 2 | 1643903 | | 2 | 1643903 |
| Fer (Fe) | ug | <20 | 20 | | 20 | 1643903 | | 20 | 1643903 |
| Lithium (Li) | ug | <3 | 3 | | 3 | 1643903 | | 3 | 1643903 |
| Magnésium (Mg) | ug | <6 | 6 | | 6 | 1643903 | | 6 | 1643903 |
| Manganèse (Mn) | ug | <0.3 | 0.3 | | 0.3 | 1643903 | | 0.3 | 1643903 |
| Mercure (Hg) | ug | <0.2 | 0.2 | <0.01 | 0.01 | 1643903 | <0.3 | 0.3 | 1640322 |
| Molybdène (Mo) | ug | <2 | 2 | | | 1643903 | | | |
| Nickel (Ni) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Plomb (Pb) | ug | <2 | 2 | | | 1643903 | | | |
| Potassium (K) | ug | <30 | 30 | | | 1643903 | | | |
| Sélénium (Se) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Silicium (Si) | ug | 22 | 20 | | | 1643903 | | | |
| Sodium (Na) | ug | <20 | 20 | | | 1643903 | | | |
| Strontium (Sr) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Thallium (Tl) | ug | <0.3 | 0.3 | | | 1643903 | | | |
| Titane (Ti) | ug | <3 | 3 | | | 1643903 | | | |
| Vanadium (V) | ug | <0.6 | 0.6 | | | 1643903 | | | |
| Zinc (Zn) | ug | 3.3 | 0.3 | | | 1643903 | | | |
| LDR = Limite de détection rapportée | | | | | | | | | |
| Lot CQ = Lot contrôle qualité | | | | | | | | | |

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (SOLUTION BARBOTEUR)

| ID Maxxam | | CR4890 | | | CR4897 | | | CR4898 | | |
|------------------------|--------|---|-----|--------|--|-----|--------|--|-----|--------|
| Date d'échantillonnage | | 2016/07/03 | | | 2016/07/03 | | | 2016/07/03 | | |
| # Bordereau | | N/A | | | N/A | | | N/A | | |
| | Unités | 22+23+24- INCINERATEUR- BL | LDR | Lot CQ | 25- INCINERATEUR- B34-BL VT:150ML | LDR | Lot CQ | 27+28- INCINERATEUR- BL VT: | LDR | Lot CQ |

MÉTAUX

| | | | | | | | | | | |
|----------------|----|-------|------|---------|-------|------|---------|------|------|---------|
| Aluminium (Al) | ug | 4 | 1 | 1642938 | <2 | 2 | 1643903 | | 2 | 1643903 |
| Antimoine (Sb) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Argent (Ag) | ug | <0.5 | 0.5 | 1642938 | <0.8 | 0.8 | 1643903 | | 0.8 | 1643903 |
| Arsenic (As) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Baryum (Ba) | ug | 0.27 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Béryllium (Be) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Bismuth (Bi) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Bore (B) | ug | 7.2 | 0.2 | 1642938 | <0.3 | 0.3 | 1643903 | | 0.3 | 1643903 |
| Cadmium (Cd) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | | 0.08 | 1643903 |
| Calcium (Ca) | ug | <5 | 5 | 1642938 | <8 | 8 | 1643903 | | 8 | 1643903 |
| Chrome (Cr) | ug | 0.5 | 0.1 | 1642938 | 0.3 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Cobalt (Co) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Cuivre (Cu) | ug | 0.5 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Etain (Sn) | ug | <0.5 | 0.5 | 1642938 | 11.6 | 0.8 | 1643903 | | 0.8 | 1643903 |
| Fer (Fe) | ug | 8 | 5 | 1642938 | <8 | 8 | 1643903 | | 8 | 1643903 |
| Lithium (Li) | ug | <1 | 1 | 1642938 | <2 | 2 | 1643903 | | 2 | 1643903 |
| Magnésium (Mg) | ug | 5 | 2 | 1642938 | <3 | 3 | 1643903 | | 3 | 1643903 |
| Manganèse (Mn) | ug | 0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | 0.2 | 1643903 |
| Mercure (Hg) | ug | <0.05 | 0.05 | 1642938 | <0.08 | 0.08 | 1643903 | <0.9 | 0.9 | 1640322 |
| Molybdène (Mo) | ug | <0.5 | 0.5 | 1642938 | <0.8 | 0.8 | 1643903 | | | |
| Nickel (Ni) | ug | 0.2 | 0.1 | 1642938 | 0.3 | 0.2 | 1643903 | | | |
| Plomb (Pb) | ug | <0.5 | 0.5 | 1642938 | <0.8 | 0.8 | 1643903 | | | |
| Potassium (K) | ug | <10 | 10 | 1642938 | <20 | 20 | 1643903 | | | |
| Sélénium (Se) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | | |
| Silicium (Si) | ug | 51 | 5 | 1642938 | <8 | 8 | 1643903 | | | |
| Sodium (Na) | ug | 131 | 5 | 1642938 | <8 | 8 | 1643903 | | | |
| Strontium (Sr) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | | |
| Thallium (Tl) | ug | <0.1 | 0.1 | 1642938 | <0.2 | 0.2 | 1643903 | | | |
| Titane (Ti) | ug | <1 | 1 | 1642938 | <2 | 2 | 1643903 | | | |
| Vanadium (V) | ug | <0.2 | 0.2 | 1642938 | <0.3 | 0.3 | 1643903 | | | |
| Zinc (Zn) | ug | 5.4 | 0.1 | 1642938 | 1.2 | 0.2 | 1643903 | | | |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

MÉTAUX (EAU)

| ID Maxxam | | CR4903 | CR4904 | CR4905 | | CR4906 | CR4906 | | |
|------------------------|--------|--|--|--|-----|--|--|-----|--------|
| Date d'échantillonnage | | 2016/07/01 | 2016/07/02 | 2016/07/03 | | 2016/07/03 | 2016/07/03 | | |
| # Bordereau | | N/A | N/A | N/A | | N/A | N/A | | |
| | Unités | 29- INCINERATEUR- BB12-1 VT:203.8ML | 30- INCINERATEUR- BB12-2 VT:195.5ML | 31- INCINERATEUR- BB12-3 VT:200.5ML | LDR | 32- INCINERATEUR- BB12-BLANC VT:150ML | 32- INCINERATEUR- BB12-BLANC VT:150ML Dup. de Lab. | LDR | Lot CQ |

MÉTAUX

| | | | | | | | | | |
|----------------|----|------|------|------|-----|-------|---------|------|---------|
| Aluminium (Al) | ug | 4 | 5 | <2 | 2 | <2 | <2 | 2 | 1643903 |
| Antimoine (Sb) | ug | <0.2 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Argent (Ag) | ug | <1 | <1 | <1 | 1 | <0.8 | <0.8 | 0.8 | 1643903 |
| Arsenic (As) | ug | 3.5 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Baryum (Ba) | ug | <0.1 | <0.1 | <0.1 | 0.1 | <0.08 | <0.08 | 0.08 | 1643903 |
| Béryllium (Be) | ug | <0.1 | <0.1 | <0.1 | 0.1 | <0.08 | <0.08 | 0.08 | 1643903 |
| Bismuth (Bi) | ug | <0.1 | <0.1 | <0.1 | 0.1 | <0.08 | <0.08 | 0.08 | 1643903 |
| Bore (B) | ug | 11.0 | 16.0 | 29.3 | 0.4 | 11.3 | 7.3 (1) | 0.3 | 1643903 |
| Cadmium (Cd) | ug | <0.1 | <0.1 | <0.1 | 0.1 | <0.08 | <0.08 | 0.08 | 1643903 |
| Calcium (Ca) | ug | <10 | <10 | <10 | 10 | <8 | <8 | 8 | 1643903 |
| Chrome (Cr) | ug | 146 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Cobalt (Co) | ug | <0.2 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Cuivre (Cu) | ug | 0.3 | 0.3 | <0.2 | 0.2 | 0.2 | <0.2 | 0.2 | 1643903 |
| Etain (Sn) | ug | <1 | <1 | <1 | 1 | <0.8 | <0.8 | 0.8 | 1643903 |
| Fer (Fe) | ug | 267 | <10 | <10 | 10 | <8 | <8 | 8 | 1643903 |
| Lithium (Li) | ug | <2 | <2 | <2 | 2 | <2 | <2 | 2 | 1643903 |
| Magnésium (Mg) | ug | 37 | <4 | <4 | 4 | <3 | <3 | 3 | 1643903 |
| Manganèse (Mn) | ug | 3.5 | 0.3 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Mercure (Hg) | ug | <0.1 | <0.1 | 0.1 | 0.1 | 0.09 | <0.08 | 0.08 | 1643903 |
| Molybdène (Mo) | ug | <1 | <1 | <1 | 1 | <0.8 | <0.8 | 0.8 | 1643903 |
| Nickel (Ni) | ug | <0.2 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Plomb (Pb) | ug | <1 | <1 | <1 | 1 | <0.8 | <0.8 | 0.8 | 1643903 |
| Potassium (K) | ug | 5360 | <20 | 64 | 20 | 48 | 43 | 20 | 1643903 |
| Sélénium (Se) | ug | <0.2 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Silicium (Si) | ug | <10 | 20 | 20 | 10 | 51 | 49 | 8 | 1643903 |
| Sodium (Na) | ug | 476 | 46 | 309 | 10 | 226 | 194 | 8 | 1643903 |
| Strontium (Sr) | ug | <0.2 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Thallium (Tl) | ug | <0.2 | <0.2 | <0.2 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |
| Titane (Ti) | ug | 96 | <2 | <2 | 2 | <2 | <2 | 2 | 1643903 |
| Vanadium (V) | ug | 11.2 | <0.4 | <0.4 | 0.4 | <0.3 | <0.3 | 0.3 | 1643903 |
| Zinc (Zn) | ug | 8.5 | 6.4 | 1.1 | 0.2 | <0.2 | <0.2 | 0.2 | 1643903 |

LDR = Limite de détection rapportée

Lot CQ = Lot contrôle qualité

Duplicata de laboratoire

(1) La récupération ou l'écart relatif (RPD) pour ce composé est en dehors des limites de contrôle, mais l'ensemble du contrôle qualité rencontre les critères d'acceptabilité pour cette analyse

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

REMARQUES GÉNÉRALES

État des échantillons à l'arrivée: BON

Version 2 : Correction des limites de détections des échantillons CR4903 et CR4904 pour analyse des métaux.

MÉTAUX (SOLUTION BARBOTEUR)

Veillez noter que les résultats n'ont pas été corrigés ni pour la récupération des échantillons de contrôle qualité, ni pour le blanc de méthode. Les limites de détection indiquées sont modifiées en fonction du volume d'échantillon reçu.

Les limites de détections indiquées sont multipliées par les facteurs de dilution utilisés pour l'analyse des échantillons.

Dû à l'interférence de la matrice, la limite de détection a été augmentée.

MÉTAUX (EAU)

Veillez noter que les résultats n'ont pas été corrigés ni pour la récupération des échantillons de contrôle qualité, ni pour le blanc de méthode.

Les résultats ne se rapportent qu'aux échantillons soumis pour analyse

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

RAPPORT ASSURANCE QUALITÉ

| Lot | AQ/CQ | Init | Type CQ | Groupe | Date Analysé | Valeur | Réc | Unités |
|---------|-------|------|------------------|----------------|--------------|----------|---------|--------|
| 1640322 | MCA | | Blanc fortifié | Mercure (Hg) | 2016/07/26 | | 91 | % |
| 1640322 | MCA | | Blanc de méthode | Mercure (Hg) | 2016/07/26 | <0.05 | | ug |
| 1642938 | EMA | | Blanc fortifié | Aluminium (Al) | 2016/08/05 | | 107 | % |
| | | | | Antimoine (Sb) | 2016/08/05 | | 116 | % |
| | | | | Argent (Ag) | 2016/08/05 | | 99 | % |
| | | | | Arsenic (As) | 2016/08/05 | | 100 | % |
| | | | | Baryum (Ba) | 2016/08/05 | | 116 | % |
| | | | | Béryllium (Be) | 2016/08/05 | | 98 | % |
| | | | | Bismuth (Bi) | 2016/08/05 | | 107 | % |
| | | | | Bore (B) | 2016/08/05 | | 124 (1) | % |
| | | | | Cadmium (Cd) | 2016/08/05 | | 109 | % |
| | | | | Calcium (Ca) | 2016/08/05 | | 95 | % |
| | | | | Cobalt (Co) | 2016/08/05 | | 94 | % |
| | | | | Cuivre (Cu) | 2016/08/05 | | 91 | % |
| | | | | Etain (Sn) | 2016/08/05 | | 120 | % |
| | | | | Fer (Fe) | 2016/08/05 | | 92 | % |
| | | | | Lithium (Li) | 2016/08/05 | | 101 | % |
| | | | | Magnésium (Mg) | 2016/08/05 | | 95 | % |
| | | | | Manganèse (Mn) | 2016/08/05 | | 97 | % |
| | | | | Mercure (Hg) | 2016/08/05 | | 104 | % |
| | | | | Molybdène (Mo) | 2016/08/05 | | 109 | % |
| | | | | Nickel (Ni) | 2016/08/05 | | 94 | % |
| | | | | Plomb (Pb) | 2016/08/05 | | 110 | % |
| | | | | Potassium (K) | 2016/08/05 | | 95 | % |
| | | | | Sélénium (Se) | 2016/08/05 | | 98 | % |
| | | | | Silicium (Si) | 2016/08/05 | | 98 | % |
| | | | | Sodium (Na) | 2016/08/05 | | 107 | % |
| | | | | Strontium (Sr) | 2016/08/05 | | 112 | % |
| | | | | Thallium (Tl) | 2016/08/05 | | 120 | % |
| | | | | Titane (Ti) | 2016/08/05 | | 98 | % |
| | | | | Vanadium (V) | 2016/08/05 | | 97 | % |
| | | | | Zinc (Zn) | 2016/08/05 | | 96 | % |
| 1642938 | EMA | | Blanc de méthode | Aluminium (Al) | 2016/08/05 | 1, LDR=1 | | ug |
| | | | | Antimoine (Sb) | 2016/08/05 | <0.1 | | ug |
| | | | | Argent (Ag) | 2016/08/05 | <0.5 | | ug |
| | | | | Arsenic (As) | 2016/08/05 | <0.1 | | ug |
| | | | | Baryum (Ba) | 2016/08/05 | <0.05 | | ug |
| | | | | Béryllium (Be) | 2016/08/05 | <0.05 | | ug |
| | | | | Bismuth (Bi) | 2016/08/05 | <0.05 | | ug |
| | | | | Bore (B) | 2016/08/05 | 6.0, | | ug |
| | | | | | | LDR=0.2 | | |
| | | | | Cadmium (Cd) | 2016/08/05 | <0.05 | | ug |
| | | | | Calcium (Ca) | 2016/08/05 | <5 | | ug |
| | | | | Cobalt (Co) | 2016/08/05 | <0.1 | | ug |
| | | | | Cuivre (Cu) | 2016/08/05 | <0.1 | | ug |
| | | | | Etain (Sn) | 2016/08/05 | <0.5 | | ug |
| | | | | Fer (Fe) | 2016/08/05 | <5 | | ug |
| | | | | Lithium (Li) | 2016/08/05 | <1 | | ug |
| | | | | Magnésium (Mg) | 2016/08/05 | <2 | | ug |
| | | | | Manganèse (Mn) | 2016/08/05 | <0.1 | | ug |
| | | | | Mercure (Hg) | 2016/08/05 | <0.05 | | ug |
| | | | | Molybdène (Mo) | 2016/08/05 | <0.5 | | ug |

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

RAPPORT ASSURANCE QUALITÉ (SUITE)

| Lot | AQ/CQ | Init | Type CQ | Groupe | Date Analysé | Valeur | Réc | Unités |
|---------|-------|------|------------------|----------------|--------------|----------|---------|--------|
| | | | | Nickel (Ni) | 2016/08/05 | <0.1 | | ug |
| | | | | Plomb (Pb) | 2016/08/05 | <0.5 | | ug |
| | | | | Potassium (K) | 2016/08/05 | <10 | | ug |
| | | | | Sélénium (Se) | 2016/08/05 | <0.1 | | ug |
| | | | | Silicium (Si) | 2016/08/05 | <5 | | ug |
| | | | | Sodium (Na) | 2016/08/05 | 26,LDR=5 | | ug |
| | | | | Strontium (Sr) | 2016/08/05 | <0.1 | | ug |
| | | | | Thallium (Tl) | 2016/08/05 | <0.1 | | ug |
| | | | | Titane (Ti) | 2016/08/05 | <1 | | ug |
| | | | | Vanadium (V) | 2016/08/05 | <0.2 | | ug |
| | | | | Zinc (Zn) | 2016/08/05 | 0.4, | | ug |
| | | | | | | LDR=0.1 | | |
| 1643903 | EMA | | Blanc fortifié | Aluminium (Al) | 2016/08/04 | | 104 | % |
| | | | | Antimoine (Sb) | 2016/08/04 | | 117 | % |
| | | | | Argent (Ag) | 2016/08/04 | | 94 | % |
| | | | | Arsenic (As) | 2016/08/04 | | 109 | % |
| | | | | Baryum (Ba) | 2016/08/04 | | 104 | % |
| | | | | Béryllium (Be) | 2016/08/04 | | 100 | % |
| | | | | Bismuth (Bi) | 2016/08/04 | | 113 | % |
| | | | | Bore (B) | 2016/08/04 | | 103 | % |
| | | | | Cadmium (Cd) | 2016/08/04 | | 111 | % |
| | | | | Calcium (Ca) | 2016/08/04 | | 104 | % |
| | | | | Chrome (Cr) | 2016/08/04 | | 103 | % |
| | | | | Cobalt (Co) | 2016/08/04 | | 105 | % |
| | | | | Cuivre (Cu) | 2016/08/04 | | 106 | % |
| | | | | Etain (Sn) | 2016/08/04 | | 118 | % |
| | | | | Fer (Fe) | 2016/08/04 | | 105 | % |
| | | | | Lithium (Li) | 2016/08/04 | | 101 | % |
| | | | | Magnésium (Mg) | 2016/08/04 | | 102 | % |
| | | | | Manganèse (Mn) | 2016/08/04 | | 106 | % |
| | | | | Mercure (Hg) | 2016/08/04 | | 105 | % |
| | | | | Molybdène (Mo) | 2016/08/04 | | 111 | % |
| | | | | Nickel (Ni) | 2016/08/04 | | 107 | % |
| | | | | Plomb (Pb) | 2016/08/04 | | 112 | % |
| | | | | Potassium (K) | 2016/08/04 | | 94 | % |
| | | | | Sélénium (Se) | 2016/08/04 | | 104 | % |
| | | | | Silicium (Si) | 2016/08/04 | | 105 | % |
| | | | | Sodium (Na) | 2016/08/04 | | 103 | % |
| | | | | Strontium (Sr) | 2016/08/04 | | 117 | % |
| | | | | Thallium (Tl) | 2016/08/04 | | 128 (1) | % |
| | | | | Titane (Ti) | 2016/08/04 | | 104 | % |
| | | | | Vanadium (V) | 2016/08/04 | | 105 | % |
| | | | | Zinc (Zn) | 2016/08/04 | | 107 | % |
| 1643903 | EMA | | Blanc de méthode | Aluminium (Al) | 2016/08/04 | <1 | | ug |
| | | | | Antimoine (Sb) | 2016/08/04 | <0.1 | | ug |
| | | | | Argent (Ag) | 2016/08/04 | <0.5 | | ug |
| | | | | Arsenic (As) | 2016/08/04 | <0.1 | | ug |
| | | | | Baryum (Ba) | 2016/08/04 | <0.05 | | ug |
| | | | | Béryllium (Be) | 2016/08/04 | <0.05 | | ug |
| | | | | Bismuth (Bi) | 2016/08/04 | <0.05 | | ug |
| | | | | Bore (B) | 2016/08/04 | <0.2 | | ug |
| | | | | Cadmium (Cd) | 2016/08/04 | <0.05 | | ug |

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

RAPPORT ASSURANCE QUALITÉ (SUITE)

| Lot | AQ/CQ | Init | Type CQ | Groupe | Date Analysé | Valeur | Réc | Unités |
|-----|-------|------|---------|----------------|--------------|---------|-----|--------|
| | | | | Calcium (Ca) | 2016/08/04 | <5 | | ug |
| | | | | Chrome (Cr) | 2016/08/04 | <0.1 | | ug |
| | | | | Cobalt (Co) | 2016/08/04 | <0.1 | | ug |
| | | | | Cuivre (Cu) | 2016/08/04 | <0.1 | | ug |
| | | | | Etain (Sn) | 2016/08/04 | <0.5 | | ug |
| | | | | Fer (Fe) | 2016/08/04 | <5 | | ug |
| | | | | Lithium (Li) | 2016/08/04 | <1 | | ug |
| | | | | Magnésium (Mg) | 2016/08/04 | <2 | | ug |
| | | | | Manganèse (Mn) | 2016/08/04 | <0.1 | | ug |
| | | | | Mercure (Hg) | 2016/08/04 | <0.05 | | ug |
| | | | | Molybdène (Mo) | 2016/08/04 | <0.5 | | ug |
| | | | | Nickel (Ni) | 2016/08/04 | <0.1 | | ug |
| | | | | Plomb (Pb) | 2016/08/04 | <0.5 | | ug |
| | | | | Potassium (K) | 2016/08/04 | <10 | | ug |
| | | | | Sélénium (Se) | 2016/08/04 | <0.1 | | ug |
| | | | | Silicium (Si) | 2016/08/04 | <5 | | ug |
| | | | | Sodium (Na) | 2016/08/04 | <5 | | ug |
| | | | | Strontium (Sr) | 2016/08/04 | <0.1 | | ug |
| | | | | Thallium (Tl) | 2016/08/04 | <0.1 | | ug |
| | | | | Titane (Ti) | 2016/08/04 | <1 | | ug |
| | | | | Vanadium (V) | 2016/08/04 | <0.2 | | ug |
| | | | | Zinc (Zn) | 2016/08/04 | 0.1, | | ug |
| | | | | | | LDR=0.1 | | |

LDR = Limite de détection rapportée

Blanc fortifié: Un blanc, d'une matrice exempte de contaminants, auquel a été ajouté une quantité connue d'analyte provenant généralement d'une deuxième source. Utilisé pour évaluer la précision de la méthode.

Blanc de méthode: Une partie aliquote de matrice pure soumise au même processus analytique que les échantillons, du prétraitement au dosage. Sert à évaluer toutes contaminations du laboratoire.

Réc = Récupération

(1) La récupération ou l'écart relatif (RPD) pour ce composé est en dehors des limites de contrôle, mais l'ensemble du contrôle qualité rencontre les critères d'acceptabilité pour cette analyse

Dossier Maxxam: B646964
Date du rapport: 2016/08/10

CONSULAIR INC.
Votre # du projet: 4411
Adresse du site: AEM MEADOWBANK

PAGE DES SIGNATURES DE VALIDATION

Les résultats analytiques ainsi que les données de contrôle-qualité contenus dans ce rapport furent vérifiés et validés par les personnes suivantes:




Miryam Assayag, B.Sc. Chimiste

Maria Chrifi Alaoui, B.Sc., Chimiste

Maxxam a mis en place des procédures qui protègent contre l'utilisation non autorisée de la signature électronique et emploie les «signataires» requis, conformément à la section 5.10.2 de la norme ISO/CEI 17025:2005(E). Veuillez vous référer à la page des signatures de validation pour obtenir les détails des validations pour chaque division.

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

LABORATOIRE RESPONSABLE DES ANALYSES :

Maxxim
 889 Montée de Liesse
 Ville St-Laurent (Qc) H4T 1P5
 Téléphone : (514) 448-9001
 Télécopieur : (514) 448-5922

Projet # : _____

Chargé de Projet : _____

B646964

| ECHANTILLON | Matrice | Fraction | Qte | Date | Paramètres | Unité | Remarque |
|-----------------------------------|--------------------|------------------------|-----|------------|------------|-------|---|
| 1 - Incinérateur - BS-Acétone - 1 | Acétone | BS-Acétone | 1 | 2016-07-01 | Métaux, Hg | mg | Combiner les échantillons 1 à 3 pour les métaux particuliers de la source Biomasse - Essai #1 |
| 2 - Incinérateur - BS-HNO3 - 1 | HNO3 | BS-HNO3 | 1 | 2016-07-01 | Métaux, Hg | mg * | |
| 3 - Incinérateur - Filtre - 1 | Filtre | Poids avant : 0.549 gr | 1 | 2016-07-01 | Métaux, Hg | mg | Combiner les échantillons 1 à 3 pour les métaux particuliers de la source Biomasse - Essai #1 |
| 4 - Incinérateur - B34 - 1 | H2O2 10% / HNO3 5% | B34 - Vt: 383.9 mL | 1 | 2016-07-01 | Métaux, Hg | mg | |
| 5 - Incinérateur - B5 - 1 | HNO3 | B5 - Vt: 21 mL | 1 | 2016-07-01 | Hg | mg | |
| 6 - Incinérateur - B67 - 1 | KMNO4 4%/H2SO4 10% | B67 - Vt: 411.1 mL | 1 | 2016-07-01 | Hg | mg | Combiner les échantillons 6 et 7 pour le Hg de la source Biomasse- Essai #1 |
| 7 - Incinérateur - B67-HCl - 1 | HCl | B67-HCl - Vt: 125 mL | 1 | 2016-07-01 | Hg | mg | Combiner les échantillons 6 et 7 pour le Hg de la source Biomasse- Essai #1 |

REMIS PAR: *REV R. Cabezas*
 REÇU PAR: *REV R. Cabezas*

DATE: 2016-07-07 HEURE: 16:20

DATE: *16-07-16* HEURE: _____

Page 1 de 3

livreur maxxim

To: 17, 18, 18 ICE: yes scal: no

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank
 Projet # : _____
 Chargé de Projet : _____

LABORATOIRE RESPONSABLE DES ANALYSES
 Maxxam
 889 Montée de Liesse
 Ville St-Laurent (Qc) H4T 1P5
 Téléphone : (514) 448-9001
 Télécopieur : (514) 448-5922

| ECHANTILLON | Matrice | Fraction | Qty | Date | Paramètres | Unité | Remarque |
|-----------------------------------|--------------------|------------------------|-----|------------|------------|-------|--|
| 8 - Incinérateur - BS-Acétone - 2 | Acétone | BS-Acétone | 1 | 2016-07-02 | Métaux, Hg | mg | Combiner les échantillons 8 à 10 pour les métaux particuliers de la source Biomasse - Essai #2 |
| 9 - Incinérateur - BS-HNO3 - 2 | HNO3 | BS-HNO3 | 1 | 2016-07-02 | Métaux, Hg | mg | |
| 10 - Incinérateur - Filtre - 2 | Filtre | Poids avant : 0.536 gr | 1 | 2016-07-02 | Métaux, Hg | mg | Combiner les échantillons 8 à 10 pour les métaux particuliers de la source Biomasse - Essai #2 |
| 11 - Incinérateur - B34 - 2 | H2O2 10% / HNO3 5% | B34 - Vt: 306.4 mL | 1 | 2016-07-02 | Métaux, Hg | mg | |
| 12 - Incinérateur - B5 - 2 | HNO3 | B5 - Vt: 20.2 mL | 1 | 2016-07-02 | Hg | mg | |
| 13 - Incinérateur - B67 - 2 | KMNO4 4%/H2SO4 10% | B67 - Vt: 397.5 mL | 1 | 2016-07-02 | Hg | mg | Combiner les échantillons 13 et 14 pour le Hg de la source Biomasse - Essai #2 |
| 14 - Incinérateur - B67-HCl - 2 | HCl | B67-HCl - Vt: 125 mL | 1 | 2016-07-02 | Hg | mg | Combiner les échantillons 13 et 14 pour le Hg de la source Four 1 - Essai #2 |

REMISS PAR: _____
 REÇU PAR: *R Cabecus*

DATE: _____ HEURE: _____

DATE: *20160707* HEURE: *16:20*

Page 2 de 5

Maxxam

T°: 17, 18, 18

*Ice: yes
 Seal: no*

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

Projet # : _____

Chargé de Projet : _____

LABORATOIRE RESPONSABLE DES ANALYSES :

Maxam
889 Montée de Liesse
Ville St-Laurent (Cq) H4T 1P5
Téléphone : (514) 448-9001
Télécopieur : (514) 448-5922

| ECHANTILLON | Matrice | Fraction | Qty | Date | Paramètres | Unité | Remarque |
|------------------------------------|----------------------|-------------------------|-----|------------|------------|-------|---|
| 15 - Incinérateur - BS-Acétone - 3 | Acétone | BS-Acétone | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 15 à 17 pour les métaux particuliers de la source Biomasse - Essai #3 |
| 16 - Incinérateur - BS-HNO3 - 3 | HNO3 | BS-HNO3 | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 17 - Incinérateur - Filtre - 3 | Filtre | Poids avant : 0.5348 gr | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 15 à 17 pour les métaux particuliers de la source Biomasse - Essai #3 |
| 18 - Incinérateur - B34 - 3 | H2O2 10% / HNO3 5% | B34 - Vt: 310.3 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 19 - Incinérateur - B5 - 3 | HNO3 | B5 - Vt: 20.5 mL | 1 | 2016-07-03 | Hg | mg | |
| 20 - Incinérateur - B67 - 3 | KMNO4 4% / H2SO4 10% | B67 - Vt: 400.5 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 20 et 21 pour le Hg de la source Biomasse - Essai #3 |
| 21 - Incinérateur - B67-HCl - 3 | HCl | B67-HCl - Vt: 125 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 20 et 21 pour le Hg de la source Biomasse - Essai #3 |

REMIS PAR: _____
REÇU PAR: *RV R Cabezas*

DATE: _____ HEURE: _____
DATE: *2016-07-07* HEURE: *16:20*

Page 3 de 5

Maxam

T0:17,18,18

Iceys Seal: no

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank
Projet # : _____
Chargé de Projet : _____

LABORATOIRE RESPONSABLE DES ANALYSES
Maxxam
889 Montée de Liesse
Ville St-Laurent (Qc) H4T 1P5
Téléphone : (514) 448-9001
Télécopieur : (514) 448-5922

| ECHANTILLON | Matrice | Fraction | Qty | Date | Paramètres | Unité | Remarque |
|-------------------------------------|--------------------|-------------------------|-----|------------|------------|-------|--|
| 22 - Incinérateur - BS-Acétone - BL | Acétone | BS-Acétone | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 22 à 24 pour les métaux particulaires de la source Biomasse - Essai #1 |
| 23 - Incinérateur - BS-HNO3 - BL | HNO3 | BS-HNO3 | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 24 - Incinérateur - Filtre - BL | Filtre | Poids avant : 0.5306 gr | 1 | 2016-07-03 | Métaux, Hg | mg | Combiner les échantillons 22 à 24 pour les métaux particulaires de la Biomasse - Essai #1 |
| 25 - Incinérateur - B34 - BL | H2O2 10% / HNO3 5% | B34 - Vt: 150 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 27 - Incinérateur - B67 - BL | KMNO4 4%/H2SO4 10% | B67 - Vt: 150 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 27 et 28 pour le Hg de la source Biomasse- Essai #1 |
| 28 - Incinérateur - B67-HCl - BL | HCl | B67-HCl - Vt: 200 mL | 1 | 2016-07-03 | Hg | mg | Combiner les échantillons 27 et 28 pour le Hg de la source Biomasse - Essai #1 |
| 29 - Incinérateur - BB12 - T | H2O | BB12 - Vt: 203.8 mL | 1 | 2016-07-01 | Métaux, Hg | mg | |

REMISS PAR: *ERV R. Cabecas*
RECU PAR: _____

DATE: _____ HEURE: _____
DATE: 20160707 HEURE: 16.20

Page 4 de 5

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*T0: 17, 18, 18
ICC: 403
scal: No*

CHAÎNE DE RESPONSABILITÉ

Travaux effectués à : AEM Meadowbank

LABORATOIRE RESPONSABLE DES ANALYSES : Maxxim

Projet # : _____

889 Montée de Liesse
Ville St-Laurent (Qc) H4T 1P5
Téléphone : (514) 448-9001
Télécopieur : (514) 448-5922

Chargé de Projet : _____

| ECHANTILLON | Matrice | Fraction | Qte | Date | Paramètres | Unité | Remarque |
|----------------------------------|---------|---------------------|-----|------------|------------|-------|----------|
| 30 - Incinérateur - BB12 - 2 | H2O | BB12 - Vt: 195.5 mL | 1 | 2016-07-02 | Métaux, Hg | mg | |
| 31 - Incinérateur - BB12 - 3 | H2O | BB12 - Vt: 200.5 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| 32 - Incinérateur - BB12 - Blanc | H2O | BB12 - Vt: 150 mL | 1 | 2016-07-03 | Métaux, Hg | mg | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

REMIS PAR: *RTV R. Cabecas*
REÇU PAR: _____

DATE: _____ HEURE: _____
DATE: *2016-07-07* HEURE: *16:20*

Page 5 de 5
Joe: yes seal, y10
T: 17, 18, 18

Repentigny, le mercredi 6 juillet 2016

Mme Lorena DiBenedetto
Maxxam
Montréal (Qc)
Tél : (514) 448-9001 p. 6262
Courriel : ldibenedetto@maxxam.ca

Objet : Explications de la demande d'analyse pour le projet de AEM (Meadowbank).

Notre no de projet : 4411

Bonjour Lorena,

Voici la demande d'analyse concernant le dossier mentionné précédemment. Les mesures ont été effectuées du 1 au 3 juillet 2016. Les paramètres ciblés sont les métaux.

MÉTAUX

Les 8 échantillons suivants vous seront acheminés par un second envoi, par notre laboratoire, d'ici quelques jours :

Filtres : #3, 10, 17 et 24
Buse et sonde : #1, 8, 15, et 22.

Faire un composite des métaux pour les échantillons de filtres, BS-acétone et BS-HNO₃ (ex. éch. # 1, 2 et 3).

Faire un composite du mercure des échantillons B67 et B67-HCl (ex. éch. # 6 et 7). À noter qu'il y a une nouvelle fraction à analyser, soit le BB5, à faire analyser seul pour le mercure.

Prendre en considération que les fractions B12 sont à la fin de la chaîne de responsabilité ; échantillons #29 relié à l'essai 1, # 30 à l'essai 2, #31 à l'essai 3 et #32 au blanc.

www.consul-air.com

Siège Social : 2022, Lavoisier, local 125 Québec (Québec) Téléphone : (418) 650-5960 1-866-5989-AIR Télécopieur : (418) 704-2221
Bureau de Montréal : 500, Leclerc, Repentigny (Québec) Téléphone : (450) 654-8000 Télécopieur : (450) 654-6730

La liste des métaux est la suivante :

Al, Sb, Ag, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Sn, Fe, Li, Mg, Mn, Mo, Ni, Pb, K, Se, Na, Ti, V, Zn, Sr, Tl, Si (Silicium soluble),
Hg

Il est important de ne pas jeter les échantillons et de nous les retourner après l'analyse.

Pour des renseignements supplémentaires n'hésitez pas à communiquer avec nous.

Le chargé de projet est Simon Demers

Salutations,

Simon Demers
Consular

www.consul-air.com

Siège Social : 2022, Lavoisier, local 125 Québec (Québec) Téléphone : (418) 650-5950 1-866-6969-AIR Télécopieur : (418) 704-2221
Bureau de Montréal : 600, Leclerc, Repentigny (Québec) Téléphone : (450) 654-8000 Télécopieur : (450) 654-6730



RAPPORT D'ESSAI

Date : 14 juillet 2016

Réf : P1566-1

Client

Client : C29

Nom : Demers Simon

Téléphone : (418) 650-5960 # 2228

Courriel : simon.demers@consul-air.com

Adresse :

CONSULAIR Québec
125-2022, rue Lavoisier
Québec QC
G1N 4L5 Canada

Résumé du projet

Nb. d'objets : 12

Projet lab. : P1566

Votre # projet : 16-4411

Chantier : AEM (Meadowbank)

Résumé des essais

Paramètre(s) accrédités

| ST | Paramètre | Q. | Principe (Méthode) | Matrice |
|----|-------------------------------|----|--------------------|---------|
| | Matières particulaires (MP-A) | 4 | Gravimétrie (LPT1) | Acétone |
| | Matières particulaires (MP-F) | 4 | Gravimétrie (LPT2) | Filtre |

ST : paramètre Sous-Traité

Paramètre(s) non accrédités

| ST | Paramètre | Q. | Principe (Méthode) | Matrice |
|----|-----------------|----|--------------------|---------|
| | Chlorures (Cl-) | 4 | Spectrophotométrie | Eau |

ST : Paramètre Sous-Traité

Résultats d'essai(s)

| ST | Param. | Échantillon (s) | | Dates | | | Résultat(s) | | LDR |
|----|--------|-----------------|--|--------------|----------|----------|-----------------|-------|------|
| | | # Lab | # Client | Échantillon. | Récep. | Essai | Valeur | Unité | |
| | MP-A | 070716-1 | 1 -Incinerat. - BS-Acétone 1 | 01-07-16 | 07-07-16 | 07-07-16 | 18.9 | mg | 1.0 |
| | | 070716-2 | 8 -Incinerat. - BS-Acétone- 2 | 02-07-16 | 07-07-16 | 07-07-16 | 13.6 | mg | 1.0 |
| | | 070716-3 | 15 -Incinerat - BS-Acétone- 3 | 03-07-16 | 07-07-16 | 07-07-16 | 28.1 | mg | 1.0 |
| | | 070716-4 | 22-Incinerat.-BS-Acétone- BL | 03-07-16 | 07-07-16 | 07-07-16 | < LDR | mg | 1.0 |
| | | | | | | | | | |
| | MP-F | 070716-5 | 3 - Incinérateur - Filtre - 1 | 01-07-16 | 07-07-16 | 12-07-16 | 42.7 | mg | 0.1 |
| | | 070716-6 | 10 - Incinérateur - Filtre - 2 | 02-07-16 | 07-07-16 | 12-07-16 | 41.5 | mg | 0.1 |
| | | 070716-7 | 17 - Incinérateur - Filtre - 3 | 03-07-16 | 07-07-16 | 12-07-16 | 89.0 | mg | 0.1 |
| | | 070716-8 | 24 - Incinérateur - Filtre - BL | 03-07-16 | 07-07-16 | 12-07-16 | 0.4 | mg | 0.1 |
| | | | | | | | | | |
| | CI- | 070716-9 | 301 - Incinérateur - BB12 - 1 | 01-07-16 | 07-07-16 | 11-07-16 | 28.06 | mg | 8.20 |
| | | 070716-10 | 302 - Incinérateur - BB12 - 2 | 02-07-16 | 07-07-16 | 11-07-16 | 29.16 | mg | 8.20 |
| | | 070716-11 | 303 - Incinérateur - BB12 - 3 | 03-07-16 | 07-07-16 | 11-07-16 | 27.46 | mg | 8.20 |
| | | 070716-12 | 304-Incinerat. - BB12- Blanc | 03-07-16 | 07-07-16 | 11-07-16 | < LDR | mg | 0.41 |

ST : Essai Sous-Traité
LDR : Limite de Détection Rapportée

Commentaire(s)

1. LPT1 & LPT2: Méthode MA.100-Part 1.0 (Domaine 400 de Chimie de l'air)
2. La LDR des chlorures est exprimée en mg/l.

Contrôle de qualité

| ST | Param. | Date | # Réf | Type | Résultat(s) | | LDR |
|----|--------|----------|----------------|------|-------------|-----------|------|
| | | | | | Valeur | Unité | |
| | MP-A | 07-07-16 | BL matrice | BL | < LDR | mg | 1.0 |
| | | | BL0707 | BL | < LDR | mg | 1.0 |
| | | | MR0707 | MR | 101.7 | % Récup. | - |
| | MP-F | 12-07-16 | AP-02 Conforme | - | - | mg | 0.1 |
| | CI- | 11-07-16 | BL1107-1 | BL | < LDR | mg/l | 0.41 |
| | | | MR1107-1 | MR | 102.2 | % Récup. | - |
| | | | DP070716-9 | DP | 1.5 | % d'écart | - |
| | | | AD070716-11 | AD | 105.3 | % Récup. | - |

ST : Contrôle qualité Sous-Traité

Réf : Référence du contrôle qualité dans le système de suivi du laboratoire

BL : Blanc

MR : Matériau de Référence

DP : Duplicata

RP : Réplicata

AD : Ajout Dosé

EA : Étalon Analogue

TM: Témoin de l'extraction

LDR : Limite de Détection Rapportée

Signature

Les résultats ne se rapportent qu'aux objets soumis à l'essai

Tout ou partie de ce document ne peut être reproduit sans l'autorisation du laboratoire de CONSULAIR.

Ce rapport d'essai est certifié par la (les) personne(s) mentionnée(s) ci-après.

Pour toute question concernant ce certificat d'analyse, veuillez vous adresser directement à :

Malha Kirèche



APPENDIX 5

RAW FIEDL DATA



101.58 / 101.56 / 101.54 / 101.52 112

USINE: AEM
 VILLE: Meadowbank
 SOURCE: Incinérateur
 DIAMÈTRE: 38" (+10")
 DISTANCE AVANT: 80
 DISTANCE APRÈS: 20

DATE: 30-06-16
 ESSAI: E1 SVOC
 SONDE N°: 05-07 Q
 Cp: 0.793
 BUSE N°: 50-432
 Coef: 0.4335

P. BAR (po Hg): 101.55 / 29.99
 P. STAT. (po H₂O): -0.14
 MODULE N°: 10
 Kc: 0.995
 Ko: 0.763
 DISTANCE P-T-B: 0K

COLD BOX: OR-7
 K: 27.30
 Niveau du manomètre: 0K
 Zéro du manomètre: 0K

| Heure | Trav. Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccum po. Hg | Température | | | |
|-------|-------------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|-------------------|--------|--------------------|---------------|---------------------|----------|------------|-------------|
| | | | | | Cheminée | Compteur | | ENTRÉE | SORTIE | O ₂ (%) | | CO ₂ (%) | CO (ppm) | SONDE (°F) | FILTRE (°F) |
| 13:00 | A | 1 | 0.09 | 1.04 | 801 | 73 | 73 | 69.73 | 15.96 | 3.89 | 6/33 | -4.0 | 250 | 250 | 43 |
| 13:05 | | 2 | 0.09 | 0.86 | 1055 | 78 | 73 | 75.56 | 16.08 | 3.09 | 6/33 | -4.0 | 250 | 250 | 43 |
| 13:10 | | 3 | 0.09 | 0.86 | 1063 | 82 | 74 | 78.37 | 16.05 | 3.12 | 6/35 | -4.0 | 250 | 250 | 43 |
| 13:15 | | 4 | 0.09 | 0.86 | 1057 | 83 | 74 | 81.16 | 15.98 | 3.19 | 8/37 | -4.0 | 250 | 250 | 43 |
| 13:20 | | 5 | 0.09 | 0.87 | 1058 | 83 | 75 | 83.97 | 15.28 | 3.29 | 8/38 | -4.0 | 250 | 250 | 43 |
| 13:25 | | 6 | 0.09 | 0.88 | 1028 | 84 | 75 | 86.78 | 15.87 | 3.21 | 6/38 | -4.0 | 250 | 250 | 47 |
| 13:30 | | 7 | 0.08 | 0.78 | 1044 | 84 | 76 | 89.46 | 16.04 | 3.12 | 4/34 | -5.0 | 250 | 250 | 47 |
| 13:35 | | 8 | 0.08 | 0.78 | 1050 | 84 | 76 | 92.13 | 15.98 | 3.21 | 3/36 | -5.0 | 250 | 250 | 48 |
| 13:40 | | 9 | 0.08 | 0.77 | 1065 | 85 | 76 | 94.81 | 16.01 | 3.09 | 6/36 | -5.0 | 250 | 250 | 48 |
| 13:45 | | 10 | 0.09 | 0.87 | 1056 | 85 | 77 | 97.62 | 15.98 | 3.15 | 4/35 | -5.0 | 250 | 250 | 47 |
| 13:50 | | 11 | 0.08 | 0.78 | 1052 | 85 | 77 | 100.42 | 15.93 | 3.23 | 4/36 | -5.0 | 250 | 250 | 47 |
| 13:55 | | 12 | 0.08 | 0.80 | 1005 | 85 | 77 | 103.14 | 15.88 | 3.25 | 6/36 | -5.0 | 250 | 250 | 47 |
| 14:00 | | 13 | 0.08 | 0.78 | 1049 | 84 | 77 | 105.84 | 15.80 | 3.49 | 6/37 | -5.0 | 250 | 250 | 48 |
| 14:05 | | 14 | 0.08 | 0.77 | 1055 | 85 | 77 | 108.51 | 15.78 | 3.38 | 5/38 | -5.0 | 250 | 250 | 50 |
| 14:10 | | 15 | 0.08 | 0.79 | 1018 | 84 | 77 | 111.81 | 15.67 | 3.22 | 5/38 | -5.0 | 250 | 250 | 50 |
| 14:15 | | 16 | 0.08 | 0.81 | 990 | 85 | 77 | 113.92 | 15.77 | 3.35 | 7/35 | -5.0 | 250 | 250 | 47 |
| 14:20 | | 17 | 0.08 | 0.79 | 1030 | 85 | 77 | 116.61 | 15.68 | 3.52 | 7/37 | -5.0 | 250 | 250 | 47 |
| 14:25 | | 18 | 0.07 | 0.69 | 1040 | 85 | 78 | 119.16 | 15.76 | 3.46 | 6/36 | -5.0 | 250 | 250 | 47 |
| 14:30 | Substrat | | | | | | | | | | | | | | |

TEST DE FUITE INITIAL: 15" Volume (pi³): 0.0000

TEST DE FUITE FINAL: 0.0000 Volume (pi³): 7.0

Fuite pression (DP): 0K

| CALIBRATION | INITIALE | | FINALE | | SPAN | ZÉRO | GAZ | REMARQUES |
|------------------|--------------------|---------------------|--------------------|---------------------|------|------|-----|--|
| | O ₂ (%) | CO ₂ (%) | O ₂ (%) | CO ₂ (%) | | | | |
| ANALYSEUR DE GAZ | 20.9 | 0.0 | 20.9 | 0.0 | 0.0 | | | - Compiler le volume de gaz lors des essais d'étanchéité |
| DE COMBUSTION | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | |

PRÉLEVEUR: S. Demeo

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| | | | |
|----------------------|-----------------|---------------------------------------|-------------------------|
| USINE: AEM | DATE: 30-06-16 | P. BAR (po Hg): 29.99 | # COLD BOX: OR-7 |
| VILLE: Meadow Brook | ESSAI: E1-200C | P. STAT. (po H ₂ O): -0.14 | |
| SOURCE: Incinerateur | SONDE N°: 05-07 | MODULE N°: 16 | |
| DIAMÈTRE: 38" (110") | Sp: 0.793 | Kc: 0.995 | K: 27.30 |
| DISTANCE AVANT: 80 | BUSE N°: 50-432 | Ko: 0.763 | Niveau du manomètre: 0C |
| DISTANCE APRÈS: 20 | Coef: 0.4335 | DISTANCE P-T-B: 0K | Zéro du manomètre: 0K |

| Heure | Trav. Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | | Vaccum po. Hg | Température | | |
|-------|-------------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|--------------------|---------------------|----------|------------|---------------|-------------|-------------|---------------|
| | | | | | Cheminée | Compteur | | O ₂ (%) | CO ₂ (%) | CO (ppm) | SONDE (°F) | | FILTRE (°F) | TRAPPE (°F) | BARB. (GLACE) |
| 14:40 | B | | 0.07 | 0.70 | 1003 | 81 | 78 | 119.22 | 15.98 | 3.06 | 6133 | -5.0 | 250 | 250 | 45 |
| 14:45 | | | 0.08 | 0.79 | 1025 | 85 | 78 | 121.67 | 15.87 | 3.35 | 6135 | -5.0 | 250 | 250 | 54 |
| 14:50 | | | 0.08 | 0.77 | 1070 | 86 | 79 | 124.40 | 16.12 | 3.18 | 5134 | -5.0 | 250 | 250 | 50 |
| 14:55 | | | 0.08 | 0.80 | 1008 | 86 | 79 | 127.11 | 15.83 | 3.40 | 7135 | -5.0 | 250 | 250 | 49 |
| 15:00 | | | 0.09 | 0.89 | 1005 | 87 | 79 | 129.86 | 16.08 | 3.21 | 4133 | -5.0 | 250 | 250 | 46 |
| 15:05 | | | 0.09 | 0.91 | 1000 | 87 | 79 | 132.63 | 15.81 | 3.29 | 7134 | -5.0 | 250 | 250 | 30 |
| 15:10 | | | 0.09 | 0.88 | 1040 | 87 | 80 | 135.63 | 16.06 | 3.29 | 5133 | -5.0 | 250 | 250 | 50 |
| 15:15 | | | 0.09 | 0.88 | 1045 | 87 | 80 | 138.55 | 16.12 | 3.23 | 4133 | -5.0 | 250 | 250 | 50 |
| 15:20 | | | 0.08 | 0.84 | 950 | 87 | 80 | 141.48 | 15.84 | 3.74 | 5118 | -5.0 | 250 | 250 | 50 |
| 15:25 | | | 0.08 | 0.85 | 920 | 88 | 80 | 144.21 | 15.52 | 3.72 | 6122 | -5.0 | 250 | 250 | 50 |
| 15:30 | | | 0.08 | 0.84 | 940 | 88 | 80 | 147.11 | 15.78 | 3.52 | 5118 | -6.0 | 250 | 250 | 50 |
| 15:35 | | | 0.08 | 0.84 | 945 | 88 | 80 | 150.00 | 15.78 | 3.49 | 5118 | -6.0 | 250 | 250 | 50 |
| 15:40 | | | 0.07 | 0.85 | 750 | 89 | 81 | 152.82 | 16.00 | 0.51 | 810 | -6.0 | 250 | 250 | 50 |
| 15:45 | | | 0.07 | 0.97 | 605 | 89 | 81 | 155.64 | 20.91 | 0.45 | 3710 | -6.0 | 250 | 250 | 50 |
| 15:50 | | | 0.05 | 0.73 | 560 | 89 | 82 | 158.62 | 20.06 | 0.45 | 3710 | -6.0 | 250 | 250 | 51 |
| 15:55 | | | 0.05 | 0.74 | 545 | 88 | 82 | 161.37 | 20.25 | 0.45 | 1010 | -6.0 | 250 | 250 | 51 |
| 16:00 | | | 0.05 | 0.75 | 525 | 87 | 82 | 164.05 | 20.12 | 0.43 | 510 | -6.0 | 250 | 250 | 50 |
| 16:05 | | | 0.05 | 0.75 | 525 | 87 | 82 | 166.72 | 20.25 | 0.43 | 510 | -6.0 | 250 | 250 | 50 |
| 16:10 | FIN | | | | | | | 169.40 | 20.25 | 0.43 | 510 | -6.0 | 250 | 250 | 50 |

| | | | | | | | | | | | | | | | |
|--|--|---------------------|-----|---------------------------|------|---------------------|-----|-----------------------------------|------|--|--|--------------------------|--|--|--|
| TEST DE FUITE INITIAL : Volume (pi ³): | | | | TEST DE FUITE FINAL : 10" | | | | Volume (pi ³): 0.0000 | | | | Fuite pression (DP) : 0K | | | |
| CALIBRATION | | INITIALE | GAZ | ZÉRO | SPAN | FINALE | GAZ | ZÉRO | SPAN | REMARQUES | | | | | |
| ANALYSEUR DE GAZ | | O ₂ (%) | | | | O ₂ (%) | | | | - Compiler le volume de gaz lors des essais d'étanchéité | | | | | |
| DE | | CO ₂ (%) | | | | CO ₂ (%) | | | | | | | | | |
| COMBUSTION | | CO(ppm) | | | | CO(ppm) | | | | | | | | | |

PRÉLEVEUR: S Demers

101.57 / 101.56 / 101.54
1/2



Formulaire: F_09_V3

FEUILLE DE VÉRIFICATIONS ET DE DONNÉES DE PRÉLÈVEMENT MANUEL

décembre-2015

USINE: AFM
 VILLE: Meadow Brook
 SOURCE: Incinerateur
 DIAMÈTRE: 38" (+10")
 DISTANCE AVANT: 80
 DISTANCE APRÈS: 80

DATE: 01-07-16
 ESSAI: E2 SUOC
 SONDE N°: 05-07 Q
 Cp: 0.793
 BUSE N°: 50-432
 Coef: 0.4335

P. BAR (po Hg): 101.56 / 29.99
 P. STAT. (po H₂O): -0.14
 MODULE N°: 16
 Kc: 0.995
 Ko: 0.762
 DISTANCE P-T-B: ok

COLD BOX: OR-7
 K': 27.30
 Niveau du manomètre: ok
 Zéro du manomètre: ok

| Heure | Trav. | Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccuum po. Hg | Température | | | |
|-------|-------|-------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|-------------------|--------|--------------------|----------------|---------------------|----------|------------|-------------|
| | | | | | | Cheminée | Compteur | | ENTRÉE | SORTIE | O ₂ (%) | | CO ₂ (%) | CO (ppm) | SONDE (°F) | FILTRE (°F) |
| 8:10 | A | 1 | | 0.08 | 0.84 | 820 | 64 | 64 | 70.77 | 4.23 | 3.94 | 12.28 | -3.0 | 250 | 250 | 46 |
| 8:15 | | 2 | | 0.08 | 0.83 | 840 | 73 | 64 | 73.50 | 4.08 | 4.48 | 9.31 | -3.0 | 250 | 250 | 46 |
| 8:20 | | 3 | | 0.09 | 0.95 | 891 | 77 | 65 | 79.16 | 4.31 | 4.48 | 6.130 | -3.0 | 250 | 250 | 46 |
| 8:25 | | 4 | | 0.09 | 0.93 | 931 | 79 | 65 | 82.06 | 4.56 | 4.23 | 6.130 | -4.0 | 250 | 250 | 47 |
| 8:30 | | 5 | | 0.09 | 0.94 | 923 | 79 | 67 | 85.02 | 4.80 | 4.08 | 7.130 | -4.0 | 250 | 250 | 47 |
| 8:35 | | 6 | | 0.09 | 0.93 | 924 | 79 | 68 | 87.97 | 4.68 | 4.14 | 8.132 | -4.0 | 250 | 250 | 45 |
| 8:40 | | 7 | | 0.10 | 1.02 | 952 | 79 | 68 | 91.05 | 4.74 | 4.17 | 6.130 | -4.0 | 250 | 250 | 46 |
| 8:45 | | 8 | | 0.10 | 1.03 | 935 | 80 | 68 | 94.12 | 4.56 | 4.37 | 4.131 | -4.0 | 250 | 250 | 46 |
| 8:50 | | 9 | | 0.10 | 1.02 | 957 | 81 | 70 | 97.29 | 4.43 | 4.51 | 6.131 | -4.0 | 250 | 250 | 47 |
| 8:55 | | 10 | | 0.10 | 1.00 | 986 | 81 | 70 | 100.48 | 4.28 | 4.57 | 5.132 | -4.0 | 250 | 250 | 47 |
| 9:00 | | 11 | | 0.10 | 0.99 | 999 | 81 | 71 | 103.55 | 4.37 | 4.96 | 4.131 | -4.0 | 250 | 250 | 47 |
| 9:05 | | 12 | | 0.10 | 1.00 | 983 | 81 | 71 | 106.63 | 4.84 | 4.99 | 5.135 | -4.0 | 250 | 250 | 47 |
| 9:10 | | 13 | | 0.09 | 0.91 | 971 | 82 | 72 | 109.57 | 4.78 | 5.03 | 5.135 | -4.0 | 250 | 250 | 46 |
| 9:15 | | 14 | | 0.09 | 0.93 | 952 | 81 | 72 | 112.46 | 4.89 | 5.05 | 4.131 | -4.0 | 250 | 250 | 46 |
| 9:20 | | 15 | | 0.08 | 0.80 | 996 | 82 | 73 | 115.23 | 4.83 | 4.37 | 4.131 | -4.0 | 250 | 250 | 47 |
| 9:25 | | 16 | | 0.07 | 0.70 | 990 | 84 | 73 | 117.83 | 4.16 | 4.82 | 4.131 | -4.0 | 250 | 250 | 48 |
| 9:30 | | 17 | | 0.07 | 0.74 | 920 | 84 | 74 | 120.49 | 5.26 | 4.06 | 1.129 | -4.0 | 250 | 250 | 47 |
| 9:35 | | 18 | | 0.07 | 0.74 | 927 | 84 | 74 | 123.17 | 4.62 | 4.51 | 7.126 | -4.0 | 250 | 250 | 47 |
| 9:40 | | | | | | | | | | | | | | | | |

TEST DE FUITE INITIAL : 15" Volume (pi³): 0.0000

| CALIBRATION | TEST DE FUITE FINAL : | | |
|------------------|-----------------------|------|------|
| | INITIALE | GAZ | ZÉRO |
| ANALYSEUR DE GAZ | O ₂ (%) | 20.9 | 0.0 |
| | CO ₂ (%) | 0.0 | 0.0 |
| | CO(ppm) | 0.0 | 0.0 |

TEST DE FUITE FINAL : Volume (pi³):

| ANALYSEUR DE COMBUSTION | TEST DE FUITE FINAL : | | |
|-------------------------|-----------------------|-----|------|
| | FINALE | GAZ | ZÉRO |
| ANALYSEUR DE COMBUSTION | O ₂ (%) | | |
| | CO ₂ (%) | | |
| | CO(ppm) | | |

Fuite pression (DP): ok

REMARQUES

- Compiler le volume de gaz lors des essais d'étanchéité

PRÉLEVEUR: S. Demers

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Formulaire: F_09_V3

FEUILLE DE VÉRIFICATIONS ET DE DONNÉES DE PRÉLÈVEMENT MANUEL

décembre-2015

USINE: AEA
 VILLE: Meadowbank
 SOURCE: Translocators
 DIAMÈTRE: 38" (+10")
 DISTANCE AVANT: 80
 DISTANCE APRÈS: 20

DATE: 01-07-16
 ESSAI: F2 SUOC
 SONDE N°: 05-07-0
 Cp: 0.793
 BUSE N°: 50-432
 Coef: 0.4335

P. BAR (po Hg):
 P. STAT. (po H₂O): -0.4
 MODULE N°: 16
 Kc: 0.995
 Ko:
 Niveau du manomètre: OK
 Zéro du manomètre: OK

COLD BOX: OR-7
 K': 27.30

| Heure | Trav. | Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccum po. Hg | Température | | |
|-------|-------|-------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|--------------------|---------------------|----------|---------------|-------------|-------------|-------------|
| | | | | | | Cheminée | Compteur | | O ₂ (%) | CO ₂ (%) | CO (ppm) | | SONDE (°F) | FILTRE (°F) | TRAPPE (°F) |
| 9:45 | A | 1 | | 0.07 | 0.74 | 920 | 78 | 75 | 123.24 | 16.62 | 3.38 | 41.12 | -5.0 | 250 | -46 |
| 9:50 | | 2 | | 0.08 | 0.84 | 926 | 84 | 75 | 125.91 | 14.87 | 4.32 | 51.26 | -5.0 | 250 | -46 |
| 9:55 | | 3 | | 0.09 | 0.94 | 944 | 85 | 75 | 128.69 | 15.35 | 4.00 | 51.30 | -5.0 | 250 | 47 |
| 10:00 | | 4 | | 0.09 | 0.94 | 939 | 86 | 76 | 131.72 | 15.50 | 3.91 | 41.31 | -5.0 | 250 | 47 |
| 10:05 | | 5 | | 0.09 | 0.92 | 980 | 86 | 77 | 134.74 | 15.55 | 3.89 | 51.25 | -5.0 | 250 | 48 |
| 10:10 | | 6 | | 0.09 | 0.94 | 941 | 86 | 77 | 137.74 | 15.52 | 3.91 | 41.30 | -5.0 | 250 | 48 |
| 10:15 | | 7 | | 0.10 | 1.06 | 925 | 85 | 77 | 140.75 | 15.71 | 3.74 | 31.27 | -5.0 | 250 | 48 |
| 10:20 | | 8 | | 0.10 | 1.00 | 1000 | 85 | 76 | 143.91 | 15.31 | 4.00 | 41.19 | -5.0 | 250 | 46 |
| 10:25 | | 9 | | 0.10 | 1.02 | 970 | 86 | 76 | 147.11 | 15.67 | 3.91 | 11.30 | -5.0 | 250 | 46 |
| 10:30 | | 10 | | 0.10 | 1.03 | 969 | 86 | 78 | 150.29 | 15.78 | 3.78 | 31.28 | -5.0 | 250 | 46 |
| 10:35 | | 11 | | 0.10 | 1.04 | 946 | 87 | 78 | 153.52 | 15.89 | 3.60 | 61.28 | -5.0 | 250 | 46 |
| 10:40 | | 12 | | 0.10 | 1.02 | 978 | 86 | 78 | 156.67 | 15.14 | 4.25 | 41.28 | -5.0 | 250 | 46 |
| 10:45 | | 13 | | 0.10 | 1.06 | 927 | 87 | 78 | 159.86 | 16.18 | 3.60 | 41.30 | -6.0 | 250 | 46 |
| 10:50 | | 14 | | 0.09 | 0.95 | 985 | 87 | 79 | 162.99 | 16.47 | 3.26 | 21.26 | -6.0 | 250 | 46 |
| 10:55 | | 15 | | 0.09 | 0.97 | 911 | 88 | 80 | 166.14 | 16.81 | 3.06 | 31.26 | -6.0 | 250 | 46 |
| 11:00 | | 16 | | 0.07 | 0.74 | 925 | 88 | 80 | 169.14 | 16.66 | 3.03 | 31.28 | -6.0 | 250 | 46 |
| 11:05 | | 17 | | 0.06 | 0.63 | 935 | 88 | 80 | 171.86 | 16.21 | 3.66 | 51.27 | -6.0 | 250 | 48 |
| 11:10 | | 18 | | 0.06 | 0.64 | 924 | 89 | 80 | 174.37 | 16.33 | 3.29 | 61.27 | -6.0 | 250 | 48 |
| 11:15 | | FIN | | | | | | | | | | | | | |

TEST DE FUITE INITIAL: 10" Volume (pi³): 0.0000
 TEST DE FUITE FINAL: 10" Volume (pi³): 0.0000
 Fuite pression (DP): OK

| CALIBRATION | INITIALE | GAZ | ZERO | SPAN | REMARQUES | | |
|--------------------------------|---------------------|-----|------|------|-----------|-----|------|
| | | | | | FINALE | GAZ | SPAN |
| ANALYSEUR DE GAZ DE COMBUSTION | O ₂ (%) | | | | | | |
| | CO ₂ (%) | | | | | | |
| | CO(ppm) | | | | | | |

PRÉLEVEUR: S. Demaris

- Compiler le volume de gaz lors des essais d'étanchéité

101.58 / 101.57 / 101.55 / 101.55
1/2

101.58 / 101.57 / 101.55 / 101.55



Formulaire: F_09_V3

FEUILLE DE VÉRIFICATIONS ET DE DONNÉES DE PRÉLÈVEMENT MANUEL

décembre-2015

| | | | |
|------------------------|-------------------|---------------------------------------|-------------------------|
| USINE: AEM | DATE: 03-07-16 | P. BAR (po Hg): 101.56 / 29.95 | # COLD BOX: OR-7 |
| VILLE: Meadow Brook | ESSAI: E3 2UOC | P. STAT. (po H ₂ O): -0.14 | |
| SOURCE: 38" (+10") | SONDE N°: 05-07 Q | MODULE N°: 156 | |
| DIAMÈTRE: Incinérateur | Cp: 0.793 | Kc: 0.995 | K': 27.30 |
| DISTANCE AVANT: 80 | BUSE N°: 50-432 | Ko: 0.763 | Niveau du manomètre: OK |
| DISTANCE APRÈS: 20 | Coef: 0.4335 | DISTANCE P-T-B: OK | Zéro du manomètre: OK |

| Heure | Trav. | Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccuum po. Hg | Température | | | |
|-------|-------|----------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|--------------------|---------------------|----------|----------------|-------------|-------------|-------------|---------------|
| | | | | | | Cheminée | Compteur | | O ₂ (%) | CO ₂ (%) | CO (ppm) | | SONDE (°F) | FILTRE (°F) | TRAPPE (°F) | BARB. (GLACE) |
| 13:00 | A | 1 | | 0.08 | 0.75 | 1011 | 79 | 79 | 84.81 | 16.20 | 23.8 | 71.2 | -3.0 | 250 | 250 | 54 |
| 13:05 | | 2 | | 0.09 | 0.89 | 1030 | 80 | 79 | 85.51 | 15.08 | 24.6 | 71.37 | -3.0 | 250 | 250 | 50 |
| 13:10 | | 3 | | 0.09 | 0.88 | 1040 | 85 | 80 | 90.42 | 15.71 | 25.5 | 71.37 | -3.0 | 250 | 250 | 41 |
| 13:15 | | 4 | | 0.09 | 0.88 | 1048 | 91 | 81 | 93.28 | 15.70 | 25.2 | 71.37 | -3.0 | 250 | 250 | 41 |
| 13:20 | | 5 | | 0.09 | 0.90 | 1025 | 91 | 82 | 96.13 | 15.91 | 23.5 | 71.35 | -3.0 | 250 | 250 | 43 |
| 13:25 | | 6 | | 0.09 | 0.87 | 1030 | 91 | 82 | 99.06 | 15.91 | 23.2 | 71.36 | -3.0 | 250 | 250 | 43 |
| 13:30 | | 7 | | 0.09 | 0.89 | 1031 | 92 | 82 | 01.99 | 16.01 | 22.9 | 71.35 | -3.0 | 250 | 250 | 43 |
| 13:35 | | 8 | | 0.10 | 0.99 | 1031 | 92 | 82 | 04.93 | 16.01 | 22.9 | 71.35 | -3.0 | 250 | 250 | 43 |
| 13:40 | | 9 | | 0.10 | 0.99 | 1046 | 92 | 84 | 07.98 | 16.10 | 21.5 | 71.33 | -3.0 | 250 | 250 | 44 |
| 13:45 | | 10 | | 0.10 | 1.00 | 1022 | 92 | 84 | 11.04 | 16.03 | 22.3 | 71.33 | -4.0 | 250 | 250 | 43 |
| 13:50 | | 11 | | 0.09 | 0.90 | 1022 | 93 | 84 | 14.04 | 16.15 | 21.8 | 71.32 | -4.0 | 250 | 250 | 43 |
| 13:55 | | 12 | | 0.09 | 0.88 | 1053 | 93 | 84 | 17.19 | 15.99 | 24.3 | 11.33 | -4.0 | 250 | 250 | 43 |
| 14:00 | | 13 | | 0.09 | 0.88 | 1053 | 93 | 85 | 20.08 | 15.92 | 23.2 | 71.30 | -4.0 | 250 | 250 | 43 |
| 14:05 | | 14 | | 0.08 | 0.79 | 1045 | 93 | 85 | 22.94 | 15.96 | 23.5 | 71.32 | -4.0 | 250 | 250 | 43 |
| 14:10 | | 15 | | 0.08 | 0.79 | 1055 | 93 | 86 | 25.86 | 15.92 | 24.6 | 81.32 | -4.0 | 250 | 250 | 43 |
| 14:15 | | 16 | | 0.08 | 0.79 | 1048 | 93 | 86 | 28.61 | 16.01 | 23.2 | 13.32 | -4.0 | 250 | 250 | 43 |
| 14:20 | | 17 | | 0.07 | 0.70 | 1041 | 93 | 86 | 31.36 | 16.04 | 23.8 | 71.32 | -4.0 | 250 | 250 | 42 |
| 14:25 | | 18 | | 0.07 | 0.69 | 1043 | 93 | 86 | 33.96 | 15.97 | 24.0 | 81.32 | -4.0 | 250 | 250 | 43 |
| 14:30 | | du train | | | | | | | 36.83 | | | | | | | |

| | | | | |
|----------------------------|--|----------------------|----------------------------|----------------------|
| TEST DE FUITE INITIAL: 15" | Volume (pi ³): 0.0000 | TEST DE FUITE FINAL: | Volume (pi ³): | Fuite pression (DP): |
| CALIBRATION | INITIALE | GAZ | ZERO | SPAN |
| ANALYSEUR DE GAZ | O ₂ (%) | | | |
| DE | CO ₂ (%) | | | |
| COMBUSTION | CO(ppm) | | | |
| REMARQUES | - Compiler le volume de gaz lors des essais d'étanchéité | | | |

PRÉLEVEUR: S. Dames

USINE: AEM DATE: 02-07-16 # COLD BOX: OR 7
 VILLE: Washaw Beach ESSAI: E3-SUOC
 SOURCE: 28" (±10") SONDE N°: 05-070 MODULE N°: 16
 DIAMÈTRE: Immissionaire Cp: 0.793 Kc: 0.995
 DISTANCE AVANT: 80 BUSE N°: 50-432 Ko: 0.763
 DISTANCE APRÈS: 20 Coef: 0.4335 Niveau du manomètre: OK
 Zéro du manomètre: OK

| Heure | Trav. | Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccum po. Hg | Température | | | |
|-------|-------|-------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|--------------------|---------------------|----------|---------------|-------------|-------------|-------------|---------------|
| | | | | | | Cheminée | Compteur | | O ₂ (%) | CO ₂ (%) | CO (ppm) | | SONDE (°F) | FILTRE (°F) | TRAPPE (°F) | BARB. (GLACE) |
| 14:35 | B | 1 | | 0.08 | 0.80 | 1030 | 90 | 87 | 136.61 | 16.06 | 3.15 | 1130 | -4.0 | 250 | 250 | 43 |
| 14:40 | | 2 | | 0.08 | 0.81 | 1013 | 93 | 87 | 139.35 | 15.86 | 3.16 | 7134 | -4.0 | 250 | 250 | 44 |
| 14:45 | | 3 | | 0.08 | 0.82 | 1004 | 94 | 87 | 142.10 | 15.85 | 3.40 | 8133 | -4.0 | 250 | 250 | 44 |
| 14:50 | | 4 | | 0.08 | 0.80 | 1032 | 94 | 87 | 144.89 | 15.94 | 3.46 | 12132 | -4.0 | 250 | 250 | 43 |
| 14:55 | | 5 | | 0.08 | 0.81 | 1014 | 95 | 87 | 147.72 | 15.98 | 3.38 | 9131 | -4.0 | 250 | 250 | 43 |
| 15:00 | | 6 | | 0.09 | 0.90 | 1039 | 95 | 88 | 150.53 | 16.00 | 3.38 | 8131 | -4.0 | 250 | 250 | 43 |
| 15:05 | | 7 | | 0.09 | 0.92 | 1002 | 95 | 88 | 153.46 | 16.17 | 3.32 | 7131 | -4.0 | 250 | 250 | 43 |
| 15:10 | | 8 | | 0.09 | 0.91 | 1022 | 94 | 87 | 156.42 | 16.20 | 3.26 | 8130 | -4.0 | 250 | 250 | 39 |
| 15:15 | | 9 | | 0.09 | 0.90 | 1039 | 94 | 87 | 159.37 | 16.23 | 3.20 | 10129 | -4.0 | 250 | 250 | 39 |
| 15:20 | | 10 | | 0.10 | 1.00 | 1031 | 94 | 87 | 162.33 | 16.25 | 3.18 | 8129 | -4.0 | 250 | 250 | 39 |
| 15:25 | | 11 | | 0.10 | 1.00 | 1040 | 94 | 87 | 165.51 | 16.27 | 3.18 | 8130 | -4.0 | 250 | 250 | 39 |
| 15:30 | | 12 | | 0.10 | 1.03 | 994 | 93 | 87 | 168.76 | 16.47 | 3.12 | 8129 | -4.0 | 250 | 250 | 38 |
| 15:35 | | 13 | | 0.10 | 1.04 | 979 | 92 | 86 | 172.02 | 16.71 | 3.03 | 10127 | -4.0 | 250 | 250 | 38 |
| 15:40 | | 14 | | 0.10 | 1.01 | 1017 | 92 | 86 | 175.30 | 16.41 | 3.12 | 11128 | -4.0 | 250 | 250 | 39 |
| 15:45 | | 15 | | 0.10 | 1.01 | 1021 | 92 | 86 | 178.51 | 16.51 | 3.03 | 7128 | -4.0 | 250 | 250 | 37 |
| 15:50 | | 16 | | 0.09 | 0.91 | 1015 | 92 | 86 | 181.76 | 16.17 | 3.23 | 10129 | -4.0 | 250 | 250 | 38 |
| 15:55 | | 17 | | 0.09 | 0.90 | 1023 | 92 | 86 | 184.85 | 16.18 | 3.15 | 7129 | -4.0 | 250 | 250 | 38 |
| 16:00 | | 18 | | 0.09 | 0.90 | 1023 | 92 | 86 | 187.92 | 16.18 | 3.15 | 7129 | -4.0 | 250 | 250 | 38 |
| 16:05 | | 19 | | 0.09 | 0.90 | 1023 | 92 | 86 | 191.07 | 16.31 | 3.03 | 7129 | -4.0 | 250 | 250 | 38 |

TEST DE FUITE INITIAL: 10" Volume (pi³): 0.0000 TEST DE FUITE FINAL: 13" Volume (pi³): 0.0000

| CALIBRATION | INITIALE | GAZ | ZÉRO | SPAN | REMARQUES | | |
|--------------------------------|---------------------|-----|------|------|-----------|-----|------|
| | | | | | FINALE | GAZ | SPAN |
| ANALYSEUR DE GAZ DE COMBUSTION | O ₂ (%) | | | | | | |
| | CO ₂ (%) | | | | | | |
| | CO(ppm) | | | | | | |

Fuite pression (DP):

PRÉLEVEUR: S. Dimeas

- Compiler le volume de gaz lors des essais d'étanchéité

Vérification avant essai et montage du dispositif de prélèvement - COSV

| | | |
|-------------------------------|---------------------|----------------------------------|
| Compagnie: <i>AEM</i> | Projet: <i>4411</i> | # Ensemble de verrerie: <i>5</i> |
| Source: <i>Incinerateur 5</i> | Essai: <i>Blanc</i> | # Hot Box: <i>OR-8</i> |
| Date: <i>16-06-30</i> | Heure: | |

1 - DÉCONTAMINATION & VÉRIFICATION AVANT ESSAI - BUSE ET SONDE

| Item | Remarques | Brosse - DHA | HA |
|---|-----------|--------------|----------|
| | | 3x Ch. | 3x Ch. |
| Buse et sonde | | <i>✓</i> | <i>✓</i> |
| Vérification de la buse et sondes d'échantillonnage à conserver : | | <i>OU</i> | NON |

2 - VÉRIFICATION AVANT ESSAI - TRAIN

| Item | Remarques | HA | |
|--|-----------|-----------|-----|
| | | 3x Ch. | |
| Train | | <i>✓</i> | |
| Vérification de la verrerie du train d'échantillonnage à conserver : | | <i>OU</i> | NON |

3 - VOLUME D'EAU RECUEILLIE

| ITEM # | PIÈCE | CONTENU | POIDS (g) | | |
|--------|---------------------------|---------------------------------|-----------|--------------|-------|
| | | | APRÈS | AVANT | TOTAL |
| 1 | Condenseur (réfrigérant) | VIDE | | | |
| 2 | Trappe de résine * | XAD-2 | | <i>104.2</i> | |
| 3 | Trappe à condensat | VIDE | | <i>213.9</i> | |
| 4 | Barboteur Greenburg-Smith | ÉTHYLÈNE GLYCOL (100-150 mL) | | <i>692.3</i> | |
| 5 | Barboteur modifié | VIDE | | <i>482.7</i> | |
| 6 | Contenant de dessicant | GEL DE SILICE | | <i>-</i> | |

* : Recouvrir de papier d'aluminium après la pré-pesée, et retirer avant la pesée après essai.

REMARQUES :**4 - LOTS DES SOLVANTS UTILISÉS**

| SOLVANTS | # LOT |
|-----------------|---------------|
| Dichlorométhane | <i>146489</i> |
| Hexane | <i>156309</i> |
| Acétone | <i>152133</i> |
| Éthylène glycol | <i>142823</i> |
| Eau HPLC | <i>135150</i> |
| Résine XAD-2 | |

Vérifié par: *S. Demers* Date: *30-06-16* Endroit: *Meadow Brook*

| | |
|-----------------------------------|--------------------------------|
| Compagnie: AEM | Projet: 4411 |
| Échantillonné le: 30-06-16 | Récupéré par: S. Demers |
| Source: Incinerateur | Essai: Blanc |
| Date: 30-06-16 | Heure: |

CAISSE # 5
Décontamination

| | | | Sol. RBS | Eau + Savon | Eau démin. | DHA | HA |
|---------------------------------|-----------|----------------------------|----------|-------------|------------|-----|----|
| Item (dans l'ordre) | # | Nom de la pièce | Ok | | | | |
| By pass | OR-5-BP | By pass | | | | | 0 |
| Cloche femelle | OR-5-CF | Cloche femelle | | | | | 0 |
| Support à filtre en téflon | OR-5-S | Support à filtre en téflon | | | | | 0 |
| Cloche mâle | OR-5-CM | Cloche mâle | | | | | 0 |
| Réfrigérant | OR-5-R | Réfrigérant | | | | | 0 |
| Trappe de résine | | Trappe de résine | | | | | |
| Trappe à condensat | OR-5-TC | Trappe à condensat | | | | | 0 |
| Grand L | OR-5-L-1 | Tige MM | | | | | 0 |
| | OR-5-L-3 | Coude 4 po. | | | | | 0 |
| Barboteur Greenberg Smith | OR-5-BBGS | Barboteur Greenberg Smith | | | | | 0 |
| Coude | OR-5-C | Coude | | | | | 0 |
| Barboteur Std | OR-5-BB | Barboteur Std | | | | | 0 |
| Pétrie | | Pétrie | | | | | 0 |
| Bouteille de verre ambrée (5) | | | | | | | |
| Garnitures (Téflon + Aluminium) | | | | | | | |
| Nombre total de pièces | 11 | # Unique | 499 | | | | |

| | | |
|---|--------------------------------|------------------------|
| Décontaminé par: LL | Date: 03-05-16 | Endroit: Québec |
| Code de décontamination (pot): LL 030516OR 5 | | |
| # Lot Des Solvants: | Dichlorométhane: 141299 | |
| | Hexane: 153935 | |
| | Acétone: 154846 | |

Commentaires

| | | | |
|-------------------|--------|---------------|--------|
| Compagnie: | | Projet: | |
| Échantillonné le: | | Récupéré par: | |
| Source: | Essai: | Date: | Heure: |

CAISSE # 5

| Décontamination | | | Sol. RBS | Eau + Savon | Eau démin. | DHA | HA |
|---------------------------------|-----------|----------------------------|-----------|-------------|------------|-----|----|
| Item (dans l'ordre) | # | Nom de la pièce | Ok | | | | |
| By pass | OR-5-BP | By pass | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cloche femelle | OR-5-CF | Cloche femelle | ✓ | ✓ | ✓ | ✓ | ✓ |
| Support à filtre en téflon | OR-5-S | Support à filtre en téflon | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cloche mâle | OR-5-CM | Cloche mâle | ✓ | ✓ | ✓ | ✓ | ✓ |
| Réfrigérant | OR-5-R | Réfrigérant | ✓ | ✓ | ✓ | ✓ | ✓ |
| Trappe de résine | | Trappe de résine | | | | | |
| Trappe à condensat | OR-5-TC | Trappe à condensat | ✓ | ✓ | ✓ | ✓ | ✓ |
| Grand L | OR-5-L-1 | Tige MM | ✓ | ✓ | ✓ | ✓ | ✓ |
| | OR-5-L-3 | Coude 4 po. | ✓ | ✓ | ✓ | ✓ | ✓ |
| Barboteur Greenberg Smith | OR-5-BBGS | Barboteur Greenberg Smith | ✓ | ✓ | ✓ | ✓ | ✓ |
| Coude | OR-5-C | Coude | ✓ | ✓ | ✓ | ✓ | ✓ |
| Barboteur Std | OR-5-BB | Barboteur Std | ✓ | ✓ | ✓ | ✓ | ✓ |
| Pétrie | | Pétrie | PLASTIQUE | | | | |
| Bouteille de verre ambrée (5) | | | ✓ | ✓ | ✓ | | ✓ |
| Garnitures (Téflon + Aluminium) | | | | | | | |
| Nombre total de pièces | 11 | # Unique | 499 | | | | |

| | | |
|----------------------------|-----------------------|-----------------|
| Décontaminé par: LB | Date: 05-04-16 | Endroit: Québec |
|----------------------------|-----------------------|-----------------|

| |
|---|
| Code de décontamination (pot): LB-050416 |
|---|

| | |
|---------------------|--------------------------------|
| # Lot Des Solvants: | Dichlorométhane: 141299 |
| | Hexane: 153935 |
| | Acétone: 154844 |

| |
|---------------------|
| Commentaires |
| |

Vérification avant essai et montage du dispositif de prélèvement - COSV

| | | |
|-----------------------------|-----------------------|-----------------------------------|
| Compagnie: <u>AEM</u> | Projet: <u>4411</u> | # Ensemble de verrerie : <u>4</u> |
| Source: <u>Incineration</u> | Essai: <u>SUOC E1</u> | # Hot Box : <u>Br-6</u> |
| Date: <u>30-06-16</u> | Heure : | |

1 - DÉCONTAMINATION & VÉRIFICATION AVANT ESSAI - BUSE ET SONDE

| Item | Remarques | Brosse - DHA | HA |
|---|-----------|--------------|--------|
| | | 3x Ch. | 3x Ch. |
| Buse et sonde | | ↓ | ↓ |
| Vérification de la buse et sondes d'échantillonnage à conserver : | | <u>OUI</u> | NON |

2 - VÉRIFICATION AVANT ESSAI - TRAIN

| Item | Remarques | HA | |
|--|-----------|------------|-----|
| | | 3x Ch. | |
| Train | | ↓ | |
| Vérification de la verrerie du train d'échantillonnage à conserver : | | <u>OUI</u> | NON |

3 - VOLUME D'EAU RECUEILLIE

| ITEM # | PIÈCE | CONTENU | POIDS (g) | | |
|--------|---------------------------|---------------------------------|-----------|--------|-------|
| | | | APRÈS | AVANT | TOTAL |
| 1 | Condenseur (réfrigérant) | VIDE | | | |
| 2 | Trappe de résine * | XAD-2 | 169,4 | 152,2 | 17,2 |
| 3 | Trappe à condensat | VIDE | 357,5 | 305,2 | 52,3 |
| 4 | Barboteur Greenburg-Smith | ÉTHYLÈNE GLYCOL (100-150 mL) | 612,0 | 594,3 | 17,7 |
| 5 | Barboteur modifié | VIDE | 621,3 | 622,2 | -0,9 |
| 6 | Contenant de dessicant | GEL DE SILICE | 1644,8 | 1636,2 | 8,6 |

* : Recouvrir de papier d'aluminium après la pré-pesée, et retirer avant la pesée après essai.

94,9g

REMARQUES :
4 - LOTS DES SOLVANTS UTILISÉS

| SOLVANTS | # LOT |
|-------------------------------|---|
| Dichlorométhane | 146489 |
| Hexane | 156309 |
| Acétone | 152133 |
| Éthylène glycol | 142823 |
| Eau HPLC | 135150 |
| Résine XAD-2 | |
| Vérifié par: <u>S. Demers</u> | Date: <u>30-06-16</u> Endroit: <u>Meadow Bank</u> |

Récupération finale du dispositif de prélèvement - COSV

Date de récupération : 30-06-16 Heure de récupération:

Nettoyage de l'extérieur des différentes pièces :

Conditionnement (HA) des contenants (**verre ambré**) de récupération :

Contenant 1 - Buse-Sonde

| Item | Remarques | Brosse HA | HA 3x Ch. | Niveau | Sac |
|---------------|-----------|-----------|-----------|--------|-----|
| Buse et Sonde | | ✓ | ✓ | ✓ | ✓ |

Contenant 2 - Filtre

| | | | | | |
|--------|--|--|--|--|---|
| Filtre | Pétri scellé avec ruban de teflon - dans le papier d'aluminium | | | | ✓ |
|--------|--|--|--|--|---|

Contenant 3 - Récupération de la partie arrière du Porte-filtre au Condenseur (avant trappe)

| Item | Remarques | Temp. H-A 5 min Ch | HA 3x Ch. | Niveau | Sac |
|---------------------|-----------|--------------------|-----------|--------|-----|
| Avant trappe résine | | ✓ | ✓ | ✓ | ✓ |

Contenant 4 - Récupération de la Trappe de résine XAD-2

| | | | | | |
|------------------------|---|--|--|--|---|
| Trappe de résine XAD-2 | Sceller avec ruban de teflon - enveloppé papier d'aluminium | | | | ✓ |
|------------------------|---|--|--|--|---|

Contenant 5 - Récupération de la Trappe à condensat au 1er Barboteur (eau)

| Item (dans l'ordre) | Remarques | H ₂ O HPLC 3x | Niveau | Sac |
|---------------------|-----------|--------------------------|--------|-----|
| Eau | | ✓ | ✓ | ✓ |

Contenant 6 - Rinçage final de la partie arrière du Porte-filtre au 1er Barboteur

| Item | Remarques | HA 3x Ch. | Niveau | Sac |
|---------------|-----------|-----------|--------|-----|
| Rinçage final | | ✓ | ✓ | ✓ |

Les pots doivent être en verre ambré.

Remarques

Récupération par : S. Demes Date : 30-06-16 Endroit : Meadow Bank

Train d'échantillonnage - ORGANIQUE

| | | | |
|-----------------------------------|------------------|---------------------------------|--------|
| Compagnie: AEM | | Projet: L411 | |
| Échantillonné le: 30-06-16 | | Récupéré par: S. Demer S | |
| Source: Incinerateur | Essai: E1 | Date: 30-06-16 | Heure: |

CAISSE # 4

| Décontamination | | | Sol. RBS | Eau + Savon | Eau démin. | DHA | HA |
|---------------------------------|-----------|----------------------------|----------|-------------|------------|-----|----|
| Item (dans l'ordre) | # | Nom de la pièce | Ok | | | | |
| By pass | OR-4-BP | By pass | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cloche femelle | OR-4-CF | Cloche femelle | ✓ | ✓ | ✓ | ✓ | ✓ |
| Support à filtre en téflon | OR-4-S | Support à filtre en téflon | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cloche mâle | OR-4-CM | Cloche mâle | ✓ | ✓ | ✓ | ✓ | ✓ |
| Réfrigérant | OR-4-R | Réfrigérant | ✓ | ✓ | ✓ | ✓ | ✓ |
| Trappe de résine | | Trappe de résine | | | | | |
| Trappe à condensat | OR-4-TC | Trappe à condensat | ✓ | ✓ | ✓ | ✓ | ✓ |
| Grand L | OR-4-L | Grand L | ✓ | ✓ | ✓ | ✓ | ✓ |
| Barboteur Greenberg Smith | OR-4-BBGS | Barboteur Greenberg Smith | ✓ | ✓ | ✓ | ✓ | ✓ |
| Coude | OR-4-C | Coude | ✓ | ✓ | ✓ | ✓ | ✓ |
| Barboteur Std | OR-4-BB | Barboteur Std | ✓ | ✓ | ✓ | ✓ | ✓ |
| Pétrie de verre | | Pétrie de verre | ✓ | ✓ | ✓ | ✓ | ✓ |
| Bouteille de verre ambrée (5) | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Garnitures (Téflon + Aluminium) | | | | | | | ✓ |
| Nombre total de pièces | 10 | # Unique | 498 | | | | |

| | | |
|----------------------------------|-----------------------|--------------------|
| Décontaminé par: MAL + LL | Date: 03/05/16 | Endroit: QC |
|----------------------------------|-----------------------|--------------------|

Code de décontamination (pot):

| | |
|---------------------|--------------------------------|
| # Lot Des Solvants: | Dichlorométhane: 141299 |
| | Hexane: 153935 |
| | Acétone: 154844 |

Commentaires

Vérification avant essai et montage du dispositif de prélèvement - COSV

| | | |
|--------------------------------|---------------------|-------------------------------------|
| Compagnie: Agnico Eagle | Projet: 4411 | # Ensemble de verrerie : #10 |
| Source: Incinerator | Essai: #2 | # Hot Box : Br-6 |
| Date: 30/06/16 | Heure : | |

1 - DÉCONTAMINATION & VÉRIFICATION AVANT ESSAI - BUSE ET SONDE

| Item | Remarques | Brosse - DHA | HA" |
|---|-----------|--------------|--------|
| | | 3x Ch. | 3x Ch. |
| Buse et sonde | | ✓ | ✓ |
| Vérification de la buse et sondes d'échantillonnage à conserver : | | OUI | NON |

2 - VÉRIFICATION AVANT ESSAI - TRAIN

| Item | Remarques | HA | |
|--|-----------|--------|-----|
| | | 3x Ch. | |
| Train | | ✓ | |
| Vérification de la verrerie du train d'échantillonnage à conserver : | | OUI | NON |

3 - VOLUME D'EAU RECUEILLIE

| ITEM # | PIÈCE | CONTENU | POIDS (g) | | |
|--------|---------------------------|---------------------------------|-----------|--------|-------|
| | | | APRÈS | AVANT | TOTAL |
| 1 | Condenseur (réfrigérant) | VIDE | | | |
| 2 | Trappe de résine * | XAD-2 | 128.8 | 124,8 | 4.0 |
| 3 | Trappe à condensat | VIDE | 386.7 | 266,4 | 120.3 |
| 4 | Barboteur Greenburg-Smith | ÉTHYLÈNE GLYCOL (100-150 mL) | 795.1 | 774,8 | 20.3 |
| 5 | Barboteur modifié | VIDE | 497.1 | 498,8 | - 1.7 |
| 6 | Contenant de dessicant | GEL DE SILICE | 1653.7 | 1644,7 | 9.0 |

* : Recouvrir de papier d'aluminium après la pré-pesée, et retirer avant la pesée après essai.

151,9

REMARQUES :
4 - LOTS DES SOLVANTS UTILISÉS

| SOLVANTS | # LOT |
|---------------------------|---|
| Dichlorométhane | 146489 |
| Hexane | 156304 |
| Acétone | 152133 |
| Éthylène glycol | 142823 |
| Eau HPLC | 135150 |
| Résine XAD-2 | |
| Vérifié par: Chouh | Date: 30-06-16 Endroit: Meadow Bunk |

Récupération finale du dispositif de prélèvement - COSV

Date de récupération : 01-07-16 Heure de récupération:

Nettoyage de l'extérieur des différentes pièces :

Conditionnement (HA) des contenants (**verre ambré**) de récupération :

Contenant 1 - Buse-Sonde

| Item | Remarques | Brosse HA | HA 3x Ch. | Niveau | Sac |
|---------------|-----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Buse et Sonde | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Contenant 2 - Filtre

| Item | Remarques | Sac |
|--------|--|-------------------------------------|
| Filtre | Pétri scellé avec ruban de teflon - dans le papier d'aluminium | <input checked="" type="checkbox"/> |

Contenant 3 - Récupération de la partie arrière du Porte-filtre au Condenseur (avant trappe)

| Item | Remarques | Tremp. H-A min. Ch. 5 | HA 3x Ch. | Niveau | Sac |
|---------------------|-----------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| Avant trappe résine | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Contenant 4 - Récupération de la Trappe de résine XAD-2

| Item | Remarques | Sac |
|------------------------|---|-------------------------------------|
| Trappe de résine XAD-2 | Sceller avec ruban de teflon - enveloppé papier d'aluminium | <input checked="" type="checkbox"/> |

Contenant 5 - Récupération de la Trappe à condensat au 1er Barboteur (eau)

| Item (dans l'ordre) | Remarques | H ₂ O HPLC 3x | Niveau | Sac |
|---------------------|-----------|-------------------------------------|-------------------------------------|-------------------------------------|
| Eau | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Contenant 6 - Rinçage final de la partie arrière du Porte-filtre au 1er Barboteur

| Item | Remarques | HA 3x Ch. | Niveau | Sac |
|---------------|-----------|-------------------------------------|-------------------------------------|-------------------------------------|
| Rinçage final | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |

Les pots doivent être en verre ambré.

Remarques

Récupération par: S. Demes Date: 01-07-16 Endroit: Meadow Bank

Train d'échantillonnage - ORGANIQUE

| | | | |
|-----------------------------------|------------------|---------------------|--------|
| Compagnie: AEM | | Projet: 4411 | |
| Échantillonné le: 01-07-16 | | Récupéré par: | |
| Source: Incinerator | Essai: #2 | Date: | Heure: |

CAISSE # 10

Décontamination

| | | | Sol. RBS | Eau + Savon | Eau démin. | DHA | HA |
|---------------------------------|------------|----------------------------|----------|-------------|------------|-----|----|
| Item (dans l'ordre) | # | Nom de la pièce | Ok | | | | |
| By pass | OR-10-BP | By pass | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cloche femelle | OR-10-CF | Cloche femelle | ✓ | ✓ | ✓ | ✓ | ✓ |
| Support à filtre en téflon | OR-10-S | Support à filtre en téflon | ✓ | ✓ | ✓ | ✓ | ✓ |
| Cloche mâle | OR-10-CM | Cloche mâle | ✓ | ✓ | ✓ | ✓ | ✓ |
| Réfrigérant | OR-10-R | Réfrigérant | ✓ | ✓ | ✓ | ✓ | ✓ |
| Trappe de résine | | Trappe de résine | | | | | |
| Trappe à condensat | OR-10-TC | Trappe à condensat | ✓ | ✓ | ✓ | ✓ | ✓ |
| Grand L | OR-10-L-1 | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Barboteur Greenberg Smith | OR-10-BBGS | Barboteur Greenberg Smith | ✓ | ✓ | ✓ | ✓ | ✓ |
| Coude | OR-10-C | Coude | ✓ | ✓ | ✓ | ✓ | ✓ |
| Barboteur Std | OR-10-BB | Barboteur Std | ✓ | ✓ | ✓ | ✓ | ✓ |
| Pétrie de verre | | Pétrie de verre | | | | | |
| Bouteille de verre ambrée (5) | | | ✓ | ✓ | ✓ | | ✓ |
| Garnitures (Téflon + Aluminium) | | | | | | | ✓ |
| Nombre total de pièces | 10 | # Unique | 988 | | | | |

| | | |
|---|--------------------------------|------------------------|
| Décontaminé par: LL | Date: 04/05 | Endroit: Québec |
| Code de décontamination (pot): LL 040516 OR 10 | | |
| # Lot Des Solvants: | Dichlorométhane: 141299 | |
| | Hexane: 153935 | |
| | Acétone: 154844 | |

Commentaires

Vérification avant essai et montage du dispositif de prélèvement - COSV

| | | |
|-----------------------------|---------------------|----------------------------------|
| Compagnie: AEM | Projet: 4411 | # Ensemble de verrerie: 6 |
| Source: Incinérateur | Essai: 3 | # Hot Box: Br-6 |
| Date: 2/07/16 | Heure : | |

1 - DÉCONTAMINATION & VÉRIFICATION AVANT ESSAI - BUSE ET SONDE

| Item | Remarques | Brosse - DHA | HA |
|---|-----------|-------------------------------------|-------------------------------------|
| | | 3x Ch. | 3x Ch. |
| Buse et sonde | | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Vérification de la buse et sondes d'échantillonnage à conserver : | | <input checked="" type="checkbox"/> | NON |

2 - VÉRIFICATION AVANT ESSAI - TRAIN

| Item | Remarques | HA | |
|--|-----------|-------------------------------------|-----|
| | | 3x Ch. | |
| Train | | <input checked="" type="checkbox"/> | |
| Vérification de la verrerie du train d'échantillonnage à conserver : | | <input checked="" type="checkbox"/> | NON |

3 - VOLUME D'EAU RECUEILLIE

| ITEM # | PIÈCE | CONTENU | POIDS (g) | | |
|--------|---------------------------|---------------------------------|-----------|--------|-------|
| | | | APRÈS | AVANT | TOTAL |
| 1 | Condenseur (réfrigérant) | VIDE | | | |
| 2 | Trappe de résine * | XAD-2 | 248,2 | 242,6 | 5,6 |
| 3 | Trappe à condensat | VIDE | 278,5 | 207,7 | 70,8 |
| 4 | Barboteur Greenburg-Smith | ÉTHYLÈNE GLYCOL (100-150 mL) | 713,2 | 696,9 | 16,3 |
| 5 | Barboteur modifié | VIDE | 511,2 | 511,5 | - 0,3 |
| 6 | Contenant de dessicant | GEL DE SILICE | 1658,3 | 1653,5 | 4,8 |

* : Recouvrir de papier d'aluminium après la pré-pesée, et retirer avant la pesée après essai.

97,2

REMARQUES :
4 - LOTS DES SOLVANTS UTILISÉS

| SOLVANTS | # LOT |
|-------------------------|--|
| Dichlorométhane | 146 459 489 |
| Hexane | 156 309 |
| Acétone | 152 133 |
| Éthylène glycol | 142 823 |
| Eau HPLC | 135 150 |
| Résine XAD-2 | |
| Vérifié par: CON | Date: 1/07/16 Endroit: Meadow Bank |

Train d'échantillonnage - ORGANIQUE

| | | | |
|----------------------------------|-------------------|---------------------|--------|
| Compagnie: AEM | | Projet: 4411 | |
| Échantillonné le: 2/07/16 | | Récupéré par: | |
| Source: Incinérateur | Essai: E-3 | Date: | Heure: |

CAISSE # 6

| Décontamination | | | Sol. RBS | Eau + Savon | Eau démin. | DHA | HA |
|---------------------------------|-----------|----------------------------|----------|-------------|------------|-----|----|
| Item (dans l'ordre) | # | Nom de la pièce | Ok | | | | |
| By pass | OR-6-BP | By pass | ✓ | | | | |
| Cloche femelle | OR-6-CF | Cloche femelle | ✓ | | | | |
| Support à filtre en téflon | OR-6-S | Support à filtre en téflon | ✓ | | | | |
| Cloche mâle | OR-6-CM | Cloche mâle | ✓ | | | | |
| Réfrigérant | OR-6-R | Réfrigérant | ✓ | ✓ | ✓ | ✓ | ✓ |
| Trappe de résine | | Trappe de résine | | | | | |
| Trappe à condensat | OR-6-TC | Trappe à condensat | ✓ | ✓ | ✓ | ✓ | ✓ |
| Grand L | OR-6-L | Grand L | ✓ | ✓ | ✓ | ✓ | ✓ |
| Barboteur Greenberg Smith | OR-6-BBGS | Barboteur Greenberg Smith | ✓ | | | | |
| Coude | OR-6-C | Coude | ✓ | | | | |
| Barboteur Std | OR-6-BB | Barboteur Std | ✓ | | | | |
| Pétrie de verre | | Pétrie de verre | ✓ | ✓ | ✓ | ✓ | ✓ |
| Bouteille de verre ambrée (5) | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Garnitures (Téflon + Aluminium) | | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Nombre total de pièces | 10 | # Unique | 500 | | | | |

| | | |
|----------------------------|-----------------------|--------------------|
| Décontaminé par: LL | Date: 04/05/16 | Endroit: Qc |
|----------------------------|-----------------------|--------------------|

| |
|---|
| Code de décontamination (pot): LL040516OR6 |
| # Lot Des Solvants: |
| Dichlorométhane: 141299 |
| Hexane: 154844 153935 |
| Acétone: 154844 |

Commentaires

1/2

101.46 / 101.45 / 101.46 / 101.41



Formulaire: F_09_V3

FEUILLE DE VÉRIFICATIONS ET DE DONNÉES DE PRÉLÈVEMENT MANUEL

décembre-2015

USINE: AEM
 VILLE: Meadowbank
 SOURCE: Incinerateurs
 DIAMÈTRE: 38" (+10")
 DISTANCE AVANT: 80
 DISTANCE APRÈS: 20

DATE: 01-07-16
 ESSAI: SA Netaux
 SONDE N°: 05-07-0
 Cp: 0.793
 BUSE N°: 50-433
 Coef: 0.4358

COLD BOX: ~~000~~ NE-2
 K': 27.87
 Niveau du manomètre: °K
 Zéro du manomètre: °K

| Heure | Trav. | Point prélev. | Temps (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccum po. Hg | Température | | |
|-------|-------|---------------|-------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|--------------------|---------------------|----------|---------------|-------------|-------------|-------------|
| | | | | | | Cheminée | Compteur | | O ₂ (%) | CO ₂ (%) | CO (ppm) | | SONDE (°F) | FILTRE (°F) | TRAPPE (°F) |
| 13:00 | A | 1 | | 0.09 | 0.98 | 940 | 85 | 85 | 77.05 | 16.20 | 2.64 | 5/30 | -3.0 | 250 | |
| 13:05 | | 2 | | 0.10 | 1.04 | 996 | 92 | 84 | 80.05 | 15.94 | 3.12 | 5/32 | -3.0 | 250 | |
| 13:10 | | 3 | | 0.10 | 1.03 | 1016 | 93 | 85 | 83.18 | 16.01 | 3.26 | 3/32 | -3.0 | 250 | |
| 13:15 | | 4 | | 0.10 | 1.04 | 1002 | 94 | 85 | 86.11 | 16.01 | 3.27 | 4/31 | -3.0 | 250 | |
| 13:20 | | 5 | | 0.10 | 1.03 | 1015 | 95 | 85 | 89.24 | 15.94 | 3.29 | 4/32 | -3.0 | 250 | |
| 13:25 | | 6 | | 0.09 | 0.94 | 991 | 95 | 86 | 92.32 | 15.88 | 3.35 | 5/33 | -3.0 | 250 | |
| 13:30 | | 7 | | 0.09 | 0.96 | 973 | 95 | 86 | 95.37 | 16.06 | 3.23 | 6/31 | -3.0 | 250 | |
| 13:35 | | 8 | | 0.09 | 0.95 | 983 | 96 | 86 | 98.42 | 15.97 | 3.23 | 7/32 | -3.0 | 250 | |
| 13:40 | | 9 | | 0.09 | 0.94 | 1003 | 97 | 86 | 101.42 | 16.01 | 3.21 | 3/32 | -3.0 | 250 | |
| 13:45 | | 10 | | 0.09 | 0.90 | 1071 | 97 | 87 | 104.39 | 15.92 | 3.28 | 3/33 | -3.0 | 250 | |
| 13:50 | | 11 | | 0.09 | 0.91 | 1046 | 97 | 87 | 107.37 | 15.72 | 3.43 | 4/31 | -3.0 | 250 | |
| 13:55 | | 12 | | 0.08 | 0.79 | 1075 | 98 | 87 | 110.30 | 15.53 | 3.61 | 5/35 | -3.0 | 250 | |
| 14:00 | | 13 | | 0.08 | 0.80 | 1070 | 98 | 87 | 113.05 | 15.55 | 3.61 | 3/36 | -3.0 | 250 | |
| 14:05 | | 14 | | 0.08 | 0.79 | 1075 | 98 | 88 | 115.82 | 15.62 | 3.52 | 3/35 | -3.0 | 250 | |
| 14:10 | | 15 | | 0.08 | 0.80 | 1076 | 98 | 88 | 118.58 | 15.62 | 3.52 | 4/31 | -3.0 | 250 | |
| 14:15 | | 16 | | 0.09 | 0.90 | 1068 | 98 | 89 | 121.30 | 15.75 | 3.55 | 4/31 | -3.0 | 250 | |
| 14:20 | | 17 | | 0.09 | 0.90 | 1070 | 99 | 90 | 124.30 | 15.51 | 3.71 | 4/36 | -3.0 | 250 | |
| 14:25 | | 18 | | 0.09 | 0.90 | 1070 | 99 | 90 | 127.23 | 15.49 | 3.72 | 4/37 | -3.0 | 250 | |
| 14:30 | | | | | | | | | 130.11 | 15.51 | 3.66 | 3/36 | -3.0 | 250 | |

TEST DE FUITE INITIAL: 15" Volume (pi³): 0.0050
 TEST DE FUITE FINAL: 10" Volume (pi³): 0.0050

| CALIBRATION | INITIALE | | ZERO | | SPAN | | REMARQUES |
|------------------|--------------------|---------------------|--------------------|---------------------|------|-------------------------|---|
| | O ₂ (%) | CO ₂ (%) | O ₂ (%) | CO ₂ (%) | SPAN | Fuite pression (DP): °K | |
| ANALYSEUR DE GAZ | | | | | | | - Complir le volume de gaz lors des essais d'étanchéité |
| DE COMBUSTION | | | | | | | |

PRÉLEVEUR: S. Dameris

101.58 / 101.58 / 101.57 / 101.58

1/2



Formulaire: F_09_V3 FEUILLE DE VÉRIFICATIONS ET DE DONNÉES DE PRÉLÈVEMENT MANUEL

décembre-2015

USINE: AFM
 VILLE: Meadow Brook
 SOURCE: Incinerateur
 DIAMÈTRE: 38" (+10")
 DISTANCE AVANT: 20
 DISTANCE APRÈS: 20

DATE: 02-07-16
 ESSAI: Es Métoax
 SONDE N°: 05-07 Q
 Cp: 0.793
 BUSE N°: 50-433
 Coef: 0.4358

COLD BOX: ME 2
 K': 27.87
 Niveau du manomètre: 0X
 Zéro du manomètre: 4X

P. BAR (po Hg): 101.58 / 30.00
 P. STAT. (po H₂O): - 0.14
 MODULE N°: 16
 Kc: 0.995
 Ko: 0.763
 DISTANCE P-T-B: 4K

| Heure | Trav. | Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vacuum po. Hg | Température | | |
|-------|-------|---------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|--------------------|---------------------|----------|---------------|-------------|-------------|-------------|
| | | | | | | Cheminée | Compteur | | O ₂ (%) | CO ₂ (%) | CO (ppm) | | SONDE (°F) | FILTRE (°F) | TRAPPE (°F) |
| 8:10 | A | 1 | | 0.07 | 0.79 | 830 | 63 | 63 | 83.74 | 15.79 | 2.55 | 413 | -2.0 | 250 | |
| 8:15 | | 2 | | 0.07 | 0.76 | 885 | 64 | 63 | 86.40 | 15.26 | 3.50 | 719 | -2.0 | 250 | |
| 8:20 | | 3 | | 0.07 | 0.74 | 914 | 67 | 63 | 89.06 | 15.17 | 4.00 | 5122 | -2.0 | 250 | |
| 8:25 | | 4 | | 0.08 | 0.84 | 930 | 70 | 64 | 91.72 | 15.10 | 3.89 | 4122 | -2.0 | 250 | |
| 8:30 | | 5 | | 0.08 | 0.85 | 922 | 74 | 64 | 94.47 | 15.14 | 3.86 | 4122 | -2.0 | 250 | |
| 8:35 | | 6 | | 0.08 | 0.83 | 945 | 75 | 65 | 27.24 | 15.12 | 3.94 | 4121 | -2.0 | 250 | |
| 8:40 | | 7 | | 0.08 | 0.85 | 919 | 76 | 65 | 100.00 | 15.00 | 3.97 | 4122 | -2.0 | 250 | |
| 8:45 | | 8 | | 0.08 | 0.85 | 960 | 77 | 66 | 102.75 | 14.98 | 3.97 | 2118 | -2.0 | 250 | |
| 8:50 | | 9 | | 0.08 | 0.84 | 943 | 77 | 66 | 105.51 | 15.07 | 3.94 | 2127 | -2.0 | 250 | |
| 8:55 | | 10 | | 0.09 | 0.95 | 925 | 77 | 67 | 108.23 | 14.98 | 3.92 | 2125 | -2.0 | 250 | |
| 9:00 | | 11 | | 0.09 | 0.92 | 980 | 77 | 67 | 111.00 | 14.32 | 4.42 | 2124 | -2.0 | 250 | |
| 9:05 | | 12 | | 0.09 | 0.95 | 932 | 77 | 67 | 113.87 | 14.67 | 4.23 | 5129 | -2.0 | 250 | |
| 9:10 | | 13 | | 0.08 | 0.85 | 927 | 78 | 67 | 116.76 | 13.97 | 4.71 | 2127 | -2.0 | 250 | |
| 9:15 | | 14 | | 0.08 | 0.86 | 913 | 79 | 68 | 119.60 | 14.79 | 4.20 | 3129 | -2.0 | 250 | |
| 9:20 | | 15 | | 0.07 | 0.75 | 914 | 79 | 68 | 122.40 | 15.00 | 3.94 | 2128 | -2.0 | 250 | |
| 9:25 | | 16 | | 0.07 | 0.75 | 923 | 80 | 69 | 125.05 | 14.96 | 4.25 | 1131 | -2.0 | 250 | |
| 9:30 | | 17 | | 0.07 | 0.74 | 939 | 81 | 69 | 127.66 | 15.07 | 3.97 | 4128 | -2.0 | 250 | |
| 9:35 | | 18 | | 0.07 | 0.74 | 934 | 81 | 69 | 130.25 | 15.11 | 3.97 | 2127 | -2.0 | 250 | |
| 9:40 | | chateau | | | | | | | 132.84 | | | | -3.0 | | |

TEST DE FUITE INITIAL : 15.1" Volume (pi³): 0.0000

TEST DE FUITE FINAL : Volume (pi³):

| CALIBRATION | INITIALE | | ZÉRO | | FINALE | |
|------------------|--------------------|---------------------|---------|------|--------|--|
| | O ₂ (%) | CO ₂ (%) | CO(ppm) | GAZ | SPAN | REMARQUES |
| ANALYSEUR DE GAZ | 20.9 | 0.0 | 0.0 | GAZ | SPAN | - Compiler le volume de gaz lors des essais d'étanchéité |
| DE | 0.0 | 0.0 | 0.0 | ZÉRO | SPAN | |
| COMBUSTION | 0.0 | 0.0 | 0.0 | GAZ | SPAN | |

PRÉLEVEUR: S. Demers

USINE: AFM # COLD BOX: ME - 2
 VILLE: Meadow Brook
 SOURCE: 38" (+10") K: 27,87
 DIAMÈTRE: Incinerateur
 DISTANCE AVANT: 80 Niveau du manomètre: OK
 DISTANCE APRÈS: 20 Zéro du manomètre: OK

DATE: 02-07-16
 ESSAI: FD Nettoyage + HCl
 SONDE N°: 05-07 Q
 Cp: 0.793
 BUSE N°: 50-433
 Coef: 0.4358

| Heure | Trav. Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccum po. Hg | Température | | |
|-------|-------------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|-------------------|--------|--------------------|---------------|---------------------|----------|------------|
| | | | | | Cheminée | Compteur | | ENTRÉE | SORTIE | O ₂ (%) | | CO ₂ (%) | CO (ppm) | SONDE (°F) |
| 9:45 | B | | 0.08 | 0.85 | 930 | 75 | 71 | 152.92 | 15.57 | 3.46 | 4.25 | -3.0 | 250 | 250 |
| 9:50 | | | 0.08 | 0.82 | 990 | 81 | 71 | 135.68 | 15.53 | 3.40 | 2.24 | -3.0 | 250 | 250 |
| 9:55 | | | 0.08 | 0.86 | 912 | 83 | 72 | 138.43 | 15.74 | 3.57 | 3.24 | -3.0 | 250 | 250 |
| 10:00 | | | 0.08 | 0.87 | 907 | 84 | 73 | 141.23 | 15.90 | 3.52 | 3.14 | -3.0 | 250 | 250 |
| 10:05 | | | 0.08 | 0.86 | 923 | 85 | 73 | 144.05 | 15.74 | 3.55 | 4.25 | -3.0 | 250 | 250 |
| 10:10 | | | 0.08 | 0.86 | 923 | 85 | 74 | 146.86 | 15.74 | 3.52 | 1.26 | -3.0 | 250 | 250 |
| 10:15 | | | 0.09 | 0.97 | 977 | 85 | 74 | 149.66 | 15.70 | 3.56 | 3.28 | -3.0 | 250 | 250 |
| 10:20 | | | 0.09 | 0.96 | 940 | 86 | 75 | 152.61 | 15.83 | 3.57 | 2.28 | -3.0 | 250 | 250 |
| 10:25 | | | 0.10 | 1.03 | 982 | 86 | 75 | 155.59 | 15.84 | 3.55 | 4.28 | -3.0 | 250 | 250 |
| 10:30 | | | 0.10 | 1.04 | 981 | 86 | 76 | 158.66 | 15.87 | 3.55 | 4.28 | -3.0 | 250 | 250 |
| 10:35 | | | 0.10 | 1.06 | 951 | 86 | 76 | 161.77 | 16.04 | 3.46 | 3.28 | -3.0 | 250 | 250 |
| 10:40 | | | 0.10 | 1.06 | 950 | 86 | 76 | 164.79 | 16.08 | 3.49 | 2.28 | -3.0 | 250 | 250 |
| 10:45 | | | 0.09 | 0.95 | 950 | 86 | 76 | 167.93 | 16.07 | 3.38 | 2.28 | -3.0 | 250 | 250 |
| 10:50 | | | 0.09 | 0.95 | 952 | 86 | 76 | 170.93 | 16.14 | 3.38 | 3.27 | -3.0 | 250 | 250 |
| 10:55 | | | 0.08 | 0.83 | 975 | 86 | 76 | 173.92 | 16.09 | 3.26 | 4.27 | -3.0 | 250 | 250 |
| 11:00 | | | 0.07 | 0.74 | 949 | 87 | 76 | 176.77 | 16.24 | 3.21 | 2.27 | -3.0 | 250 | 250 |
| 11:05 | | | 0.07 | 0.73 | 970 | 87 | 77 | 179.42 | 16.20 | 3.29 | 4.27 | -3.0 | 250 | 250 |
| 11:10 | | | 0.07 | 0.74 | 956 | 87 | 77 | 182.00 | 16.37 | 3.18 | 0.26 | -3.0 | 250 | 250 |
| 11:15 | FIN | | | | | | | 184.68 | | | | | | |

TEST DE FUITE INITIAL: 10" Volume (pi³): 0.0000 TEST DE FUITE FINAL: 11" Volume (pi³): 0.0000 Fuite pression (DP): OK

| CALIBRATION | INITIALE | | GAZ | | ZÉRO | | SPAN | | FINALE | | REMARQUES | |
|------------------|--------------------|---------------------|---------|--|--------------------|---------------------|---------|--|--------------------|---------------------|-----------|--|
| | O ₂ (%) | CO ₂ (%) | CO(ppm) | | O ₂ (%) | CO ₂ (%) | CO(ppm) | | O ₂ (%) | CO ₂ (%) | CO(ppm) | |
| ANALYSEUR DE GAZ | | | | | | | | | | | | |
| DE | | | | | | | | | | | | |
| COMBUSTION | | | | | | | | | | | | |

PRÉLEVEUR: S. Demers

- Compiler le volume de gaz lors des essais d'étanchéité

101.66 / 101.64 / 101.61 / 101.61

USINE: AEM
 VILLE: Meadowbrook
 SOURCE: 38" (+10')
 DIAMÈTRE: Incineration
 DISTANCE AVANT: 80
 DISTANCE APRÈS: 20

DATE: 03-07-16
 ESSAI: E3 Retour - HC1
 SONDE N°: 05-07 Q
 Cp: 0.793
 BUSE N°: 50-433
 Coef: 0.4358

COLD BOX: ME-2
 K': 27.87
 Niveau du manomètre: ok
 Zéro du manomètre: ok

| Heure | Trav. | Point | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccuum po. Hg | Température | | |
|-------|-------|---------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|-------------------|--------|--------------------|----------------|---------------------|----------|------------|
| | | | | | | Cheminée | Compteur | | ENTRÉE | SORTIE | O ₂ (%) | | CO ₂ (%) | CO (ppm) | SONDE (°F) |
| 8:30 | A | 1 | | 0.07 | 0.71 | 960 | 60 | 60 | 91.52 | 13.72 | 4.28 | 10/12 | -2.0 | 250 | 250 |
| 8:35 | | 2 | | 0.08 | 0.82 | 964 | 68 | 61 | 96.68 | 13.49 | 4.76 | 6/15 | -2.0 | 250 | 250 |
| 8:40 | | 3 | | 0.08 | 0.83 | 937 | 72 | 61 | 99.33 | 13.25 | 5.22 | 6/19 | -2.0 | 250 | 250 |
| 8:45 | | 4 | | 0.08 | 0.83 | 941 | 73 | 62 | 102.06 | 13.14 | 4.99 | 4/20 | -2.0 | 250 | 250 |
| 8:50 | | 5 | | 0.08 | 0.85 | 913 | 74 | 62 | 104.86 | 14.01 | 4.74 | 9/18 | -2.0 | 250 | 250 |
| 8:55 | | 6 | | 0.08 | 0.83 | 942 | 75 | 63 | 107.60 | 13.77 | 4.85 | 3/23 | -2.0 | 250 | 250 |
| 9:00 | | 7 | | 0.09 | 0.96 | 905 | 75 | 63 | 110.53 | 13.60 | 3.72 | 4/30 | -2.0 | 250 | 250 |
| 9:05 | | 8 | | 0.09 | 0.95 | 917 | 75 | 64 | 113.44 | 13.60 | 4.85 | 4/30 | -2.0 | 250 | 250 |
| 9:10 | | 9 | | 0.09 | 0.96 | 912 | 76 | 64 | 116.40 | 14.03 | 4.68 | 5/25 | -2.0 | 250 | 250 |
| 9:15 | | 10 | | 0.09 | 0.94 | 931 | 76 | 64 | 119.32 | 14.55 | 4.23 | 2/26 | -2.0 | 250 | 250 |
| 9:20 | | 11 | | 0.09 | 0.94 | 935 | 76 | 65 | 123.23 | 14.63 | 4.28 | 5/21 | -2.0 | 250 | 250 |
| 9:25 | | 12 | | 0.09 | 0.94 | 926 | 76 | 65 | 125.11 | 14.73 | 4.60 | 2/27 | -2.0 | 250 | 250 |
| 9:30 | | 13 | | 0.09 | 0.93 | 960 | 77 | 65 | 127.98 | 14.27 | 4.77 | 6/23 | -2.0 | 250 | 250 |
| 9:35 | | 14 | | 0.08 | 0.84 | 944 | 77 | 66 | 130.75 | 14.55 | 4.14 | 4/27 | -2.0 | 250 | 250 |
| 9:40 | | 15 | | 0.08 | 0.81 | 934 | 77 | 66 | 133.49 | 15.02 | 3.89 | 8/27 | -2.0 | 250 | 250 |
| 9:45 | | 16 | | 0.08 | 0.82 | 963 | 77 | 66 | 136.22 | 14.74 | 4.34 | 4/23 | -2.0 | 250 | 250 |
| 9:50 | | 17 | | 0.08 | 0.83 | 950 | 78 | 66 | 138.98 | 14.50 | 4.25 | 4/28 | -2.0 | 250 | 250 |
| 9:55 | | 18 | | 0.07 | 0.71 | 971 | 78 | 66 | 141.48 | 14.34 | 4.48 | 6/22 | -2.0 | 250 | 250 |
| 10:00 | | Continu | | | | | | | | | | | | | |

TEST DE FUITE INITIAL : 15" Volume (pi³): 0.0050 TEST DE FUITE FINAL : Volume (pi³):

| CALIBRATION | INITIALE | | | FINALE | | |
|------------------|--------------------|---------------------|---------|--------------------|---------------------|---------|
| | O ₂ (%) | CO ₂ (%) | CO(ppm) | O ₂ (%) | CO ₂ (%) | CO(ppm) |
| ANALYSEUR DE GAZ | 20.7 | 0.0 | 0.0 | 20.7 | 0.0 | 0.0 |
| DE | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| COMBUSTION | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

Fuite pression (DP):

| REMARQUES | |
|--|--|
| - Compiler le volume de gaz lors des essais d'étanchéité | |

PRÉLEVEUR: S. Dameris

| | | | |
|-------------------------|-----------------------|--------------------------------------|-------------------------|
| USINE: AEM | DATE: 03-07-16 | P. BAR (po Hg): | # COLD BOX: NE-2 |
| VILLE: Meadow Brook | ESSAI: E3 retour - HC | P. STAT. (po H ₂ O): 0.14 | |
| SOURCE: 28" (+10") | SONDE N°: 05-07-09 | MODULE N°: 16 | |
| DIAMÈTRE: 7 minidensair | CP: 0.793 | Kc: 0.995 | K: 27.87 |
| DISTANCE AVANT: 80 | BUSE N°: 50-423 | Ko: 0.763 | Niveau du manomètre: OK |
| DISTANCE APRÈS: 20 | Coef: 0.4388 | DISTANCE P-T-B: OK | Zéro du manomètre: OK |

| Heure | Trav. | Point prélev. | Temps prélev. (min) | DP (po H ₂ O) | DH (po H ₂ O) | Températures (°F) | | Volume Prélevé (pi ³) | Gaz de combustion | | | Vaccuum po. Hg | Température | | |
|-------|-------|---------------|---------------------|--------------------------|--------------------------|-------------------|----------|-----------------------------------|-------------------|--------|--------------------|----------------|---------------------|----------|------------|
| | | | | | | Cheminée | Compteur | | ENTRÉE | SORTIE | O ₂ (%) | | CO ₂ (%) | CO (ppm) | SONDE (°F) |
| 10:10 | | | | 0.07 | 0.71 | 985 | 69 | 67 | 141.58 | 16.68 | 3.09 | 712 | -3.0 | 250 | 250 |
| 10:15 | | | | 0.07 | 0.70 | 1003 | 75 | 67 | 144.16 | 15.06 | 3.91 | 712.5 | -3.0 | 250 | 250 |
| 10:20 | | | | 0.07 | 0.70 | 1007 | 75 | 67 | 146.73 | 14.28 | 4.31 | 712.2 | -3.0 | 250 | 250 |
| 10:25 | | | | 0.07 | 0.70 | 1010 | 74 | 68 | 149.30 | 15.40 | 3.60 | 712.6 | -3.0 | 250 | 250 |
| 10:30 | | | | 0.08 | 0.79 | 1022 | 75 | 68 | 151.87 | 15.35 | 3.55 | 512.8 | -3.0 | 250 | 250 |
| 10:35 | | | | 0.08 | 0.79 | 1029 | 74 | 68 | 154.62 | 15.40 | 3.46 | 412.8 | -3.0 | 250 | 250 |
| 10:40 | | | | 0.08 | 0.79 | 1023 | 74 | 68 | 157.24 | 15.50 | 3.43 | 512.7 | -3.0 | 250 | 250 |
| 10:45 | | | | 0.09 | 0.88 | 1045 | 74 | 68 | 160.04 | 15.32 | 3.52 | 612.7 | -3.0 | 250 | 250 |
| 10:50 | | | | 0.09 | 0.87 | 1060 | 74 | 69 | 162.90 | 15.56 | 3.46 | 712.8 | -3.0 | 250 | 250 |
| 10:55 | | | | 0.09 | 0.93 | 970 | 74 | 69 | 165.78 | 15.84 | 3.55 | 512.8 | -3.0 | 250 | 250 |
| 11:00 | | | | 0.09 | 0.97 | 908 | 73 | 69 | 168.66 | 15.46 | 3.53 | 412.9 | -3.0 | 250 | 250 |
| 11:05 | | | | 0.08 | 0.78 | 1050 | 72 | 70 | 171.63 | 15.29 | 3.00 | 713.0 | -3.0 | 250 | 250 |
| 11:10 | | | | 0.08 | 0.78 | 1057 | 73 | 70 | 174.34 | 15.19 | 3.05 | 613.0 | -3.0 | 250 | 250 |
| 11:15 | | | | 0.08 | 0.78 | 1063 | 73 | 70 | 177.02 | 15.26 | 3.72 | 712.9 | -3.0 | 250 | 250 |
| 11:20 | | | | 0.08 | 0.77 | 1073 | 73 | 70 | 179.68 | 15.13 | 3.83 | 513.0 | -3.0 | 250 | 250 |
| 11:25 | | | | 0.08 | 0.78 | 1063 | 76 | 71 | 182.33 | 15.22 | 3.74 | 713.1 | -3.0 | 250 | 250 |
| 11:30 | | | | 0.08 | 0.77 | 1087 | 77 | 71 | 184.77 | 15.23 | 3.82 | 513.2 | -3.0 | 250 | 250 |
| 11:35 | | | | 0.08 | 0.78 | 1062 | 77 | 71 | 187.62 | 15.10 | 3.83 | 413.2 | -3.0 | 250 | 250 |
| 11:40 | | | | | | | | | 190.47 | | | | | | |

| | | |
|--|--|--|
| TEST DE FUITE INITIAL: 12" Volume (pi ³): 0.0050 | TEST DE FUITE FINAL: 10" Volume (pi ³): 0.0050 | Fuite pression (DP): OK |
| CALIBRATION | INITIALE | REMARQUES |
| ANALYSEUR DE GAZ | O ₂ (%) | - Compiler le volume de gaz lors des essais d'étanchéité |
| DE | CO ₂ (%) | |
| COMBUSTION | CO(ppm) | |

PRÉLEVEUR: S. Demers

FEUILLE DE POIDS

| | | | |
|--------------------|---|---------|-------------------|
| Compagnie | AEM / 4411 | DONNÉES | |
| Endroit | Meadow Bank | Pbar: | po.Hg |
| Date | 01 / 07 / 2016 nov / 2000 | G | O ₂ % |
| Site échantillonné | Incinerateur | A | CO ₂ % |
| Train # | ME-3 | Z | CO ppm |
| Test # | Métaux - HCl E1 | | CO % |

| | No. | Poids | | Poids Particules |
|--------------------|--------------|-----------|-------------|---------------------|
| | | Final (g) | Initial (g) | |
| Filtre | Q2B 25-10 | | 0,5490 | |
| Lavage de la sonde | | | | |
| Cyclone | | | | |
| | | | Poids (g) | |

| Barboteurs | Poids Final | Poids Initial | Poids d'eau | |
|---|-------------|---------------|-------------|-------|
| 1 Eau | 734,6 | 689,7 | 44,9 | |
| 2 Vide | 512,6 | 494,5 | 18,1 | |
| 3 HNO ₃ 5% / H ₂ O ₂ 10% | 714,7 | 702,0 | 12,7 | |
| 4 HNO ₃ 5% / H ₂ O ₂ 10% | 754,5 | 752,2 | 2,3 | |
| 5 Vide | 567,4 | 566,4 | 1,0 | |
| 6 KMnO ₄ 4% / H ₂ SO ₄ 10% | 794,8 | 796,3 | -1,5 | |
| 7 KMnO ₄ 4% / H ₂ SO ₄ 10% | 660,4 | 661,0 | -0,6 | |
| 8 Gel de Silice | 1690,5 | 1658,5 | 32,0 | |
| | | | Poids Final | 108,9 |

| Préparation | Préparé par | Récupéré par | Approuvé par |
|-------------|-------------|--------------|--------------|
| Date | | | |
| On site | | | |
| Laboratoire | | | |

Gestion des volumes des Barboteurs

| Barboteur # | Volume d'eau Condensé | Volume de solution Initiale | Différence | Code |
|--|-----------------------|-----------------------------|------------------------------|---------------------------------------|
| 1 | 41.9 | 140.8 + 100 mL | 185.7 mL ⁽¹⁾ | |
| 2 | 18.1 | + 0 mL | 18.1 mL ⁽²⁾ | |
| Rincage à l'eau (poids) | g | g | mL ⁽³⁾ | |
| Sous-total (1+2+3) | | | 203.8 mL ⁽⁴⁾ | |
| Aliquot (Contenant 3B) | | | (-) 100 mL ⁽⁵⁾ | MAI01-A1-PMAHG-FOUR1-(1+2-A)-0134.69 |
| Volume final (4-5) | | | 103.8 mL ⁽⁶⁾ | |
| Divise par 20 | | | divise par 20 ⁽⁷⁾ | |
| Rincage 0.1N BB12 Volume d'acide HNO ₃ conc. à ajouter | | | 100 mL ⁽⁸⁾ | |
| Volume final (5+6+8) (Contenant 3A) | | | 203.8 mL ⁽⁹⁾ | MAI01-A1-PMAHG-FOUR1-(1+2-M)-0134.70 |
| 3 | 12.7 | 140.9 + 100 mL | 153.6 mL ⁽¹⁰⁾ | |
| 4 | 2.3 | 128 + 100 mL | 130.3 mL ⁽¹¹⁾ | |
| Rincage HNO ₃ 0.1N | g | g | 100.0 mL ⁽¹²⁾ | mL = gramme) 1.003 g/mL |
| Total (10 + 11 + 12) (Contenant 4) | | | 383.9 mL ⁽¹³⁾ | MAI01-A1-PMAHG-FOUR1-(3+4+RM)-0134.71 |
| 5 | 1.0 | + 0 mL | 1.0 mL ⁽¹⁴⁾ | |
| Rincage HNO ₃ 0.1N | g | g | 20.0 mL ⁽¹⁵⁾ | mL = gramme) 1.003 g/mL |
| Total (14 + 15) (Contenant 5 A) | | | 21.0 mL ⁽¹⁶⁾ | MAI01-A1-PMAHG-FOUR1-(5)-0134.72 |
| 6 | | + 100 mL | 211.1 mL ⁽¹⁷⁾ | |
| 7 | | + 100 mL | 3 mL ⁽¹⁸⁾ | |
| Rincage (KMnO ₄) | g | g | 100 mL ⁽¹⁹⁾ | mL = gramme) 1.124 g/mL |
| Rincage (H ₂ O) | g | g | 100 mL ⁽²⁰⁾ | |
| Total (17 + 18 + 19+ 20) (Contenant 5 B) | | | 411.1 mL ⁽²¹⁾ | MAI01-A1-PMAHG-FOUR1-(6+7)-0134.73 |

Rincage HCl 8N 25ml = 125 ml
H₂O 100 ml

FEUILLE DE POIDS

| | |
|--------------------|--|
| Compagnie | AEM |
| Endroit | Beakert Meadow Bank |
| Date | 02 / nov ⁰⁷ / 2006 |
| Site échantillonné | Incinérateur |
| Train # | Me-3 |
| Test # | E 2 |

| DONNÉES | |
|-------------|-------------------|
| Pbar: po.Hg | |
| G | O ₂ % |
| | CO ₂ % |
| A | CO ppm |
| Z | CO % |

| | No. | Poids | | Poids Particules |
|--------------------|-------------|-----------|-------------|------------------|
| | | Final (g) | Initial (g) | |
| Filtre | Q2D 19-g | | 0.5360 | |
| Lavage de la sonde | | | | |
| Cyclone | | | | |
| | | | Poids (g) | |

| Barboteurs | Poids Final | Poids Initial | Poids d'eau | |
|---|-------------|---------------|-------------|-------|
| 1 Eau | 731.8 | 647.8 | 84.0 | |
| 2 Vide | 507.6 | 496.1 | 11.5 | |
| 3 HNO ₃ 5% / H ₂ O ₂ 10 % | 672.2 | 667.1 | 5.1 | |
| 4 HNO ₃ 5% / H ₂ O ₂ 10 % | 726.5 | 725.2 | 1.3 | |
| 5 Vide | 568.8 | 568.6 | 0.2 | |
| 6 KMnO ₄ 4% / H ₂ SO ₄ 10% | 798.8 | 799.8 | -1.0 | |
| 7 KMnO ₄ 4% / H ₂ SO ₄ 10% | 662.8 | 664.0 | -1.2 | |
| 8 Gel de Silice | 1710.2 | 1690.4 | 19.8 | |
| | | | Poids Final | 119.7 |

| Préparation | Préparé par | Récupéré par | Approuvé par |
|-------------|-------------|--------------|--------------|
| Date | | | |
| On site | | | |
| Laboratoire | | | |

E2

Gestion des volumes des Barboteurs

| Barboteur # | Volume d'eau Condensé | Volume de solution Initiale | Différence | Code |
|---|-----------------------|-----------------------------|---|---------------------------------------|
| 1 | 84.0 | + 100 mL | 184.0 mL ⁽¹⁾ | |
| 2 | 11.5 | + 0 mL | 11.5 mL ⁽²⁾ | |
| Rincage à l'eau (poids) | g | 100 g | 100.0 mL ⁽³⁾ | |
| Sous-total (1+2+3) | | | 295.5 mL ⁽⁴⁾ | |
| Aliquot (Contenant 3B) | | | (-) 100 mL ⁽⁵⁾ | MAI01-A1-PMAHG-FOUR1-(1+2-A)-0134.69 |
| Volume final (4-5) | | | 195.5 mL ⁽⁶⁾ | |
| Divise par 20 | | | divise par 20 ⁽⁷⁾ | |
| Volume d'acide HNO₃ conc. à ajouter | | | _____ mL ⁽⁸⁾ | |
| Volume final (5+6+8) (Contenant 3A) | | | _____ mL ⁽⁹⁾ | MAI01-A1-PMAHG-FOUR1-(1+2-M)-0134.70 |
| 3 | 5.1 | + 100 mL | 105.1 mL ⁽¹⁰⁾ | |
| 4 | 1.3 | + 100 mL | 101.3 mL ⁽¹¹⁾ | |
| Rincage HNO ₃ 0.1N | g | 100 g | 100.0 mL ⁽¹²⁾ | mL = gramme) 1.003 g/mL |
| Total (10 + 11 + 12) (Contenant 4) | | | 306.4 mL ⁽¹³⁾ | MAI01-A1-PMAHG-FOUR1-(3+4+RM)-0134.71 |
| 5 | 0.2 | + 0 mL | 0.2 mL ⁽¹⁴⁾ | |
| Rincage HNO ₃ 0.1N | g | 20 g | 20.0 mL ⁽¹⁵⁾ | mL = gramme) 1.003 g/mL |
| Total (14 + 15) (Contenant 5 A) | | | 20.2 mL ⁽¹⁶⁾ | MAI01-A1-PMAHG-FOUR1-(5)-0134.72 |
| 6 | -1.0 | + 100 mL | 99.0 mL ⁽¹⁷⁾ | |
| 7 | -1.2 | + 100 mL | 98.8 mL ⁽¹⁸⁾ | |
| Rincage (KMnO ₄) | g | 100 g | 100.0 mL ⁽¹⁹⁾ | mL = gramme) 1.124 g/mL |
| Rincage (H ₂ O) | g | 100 g | 100.0 mL ⁽²⁰⁾ | |
| Total (17 + 18 + 19+20) (Contenant 5 B) | | | 397.8 mL ⁽²¹⁾ | MAI01-A1-PMAHG-FOUR1-(6+7)-0134.73 |

BB 67 HCl 8N 25ml } 125ml tot
H₂O 100 ml

FEUILLE DE POIDS

| | | | |
|--------------------|---|-------------|-------------------|
| Compagnie | AEM | DONNÉES | |
| Endroit | Meadow Bank | Pbar: | po.Hg |
| Date | 03 / 07 / 2014 nov / 2000 | G A Z | O ₂ % |
| Site échantillonné | Incinerateur | | CO ₂ % |
| Train # | | | CO ppm |
| Test # | E3 Métaux | | CO % |

| | No. | Poids Final (g) | Poids Initial (g) | Poids Particules |
|--------------------|-------------|-----------------|-------------------|------------------|
| Filtre | Q2B 23-1 | | 0.5348 | |
| Lavage de la sonde | | | | |
| Cyclone | | | | |
| | | | Poids (g) | |

| Barboteurs | Poids Final | Poids Initial | Poids d'eau |
|---|-------------|---------------|-------------|
| 1 Eau | 736.2 | 651.3 | 84.9 |
| 2 Vide | 511.0 | 495.4 | 15.6 |
| 3 HNO ₃ 5% / H ₂ O ₂ 10% | 672.7 | 665.4 | 7.3 |
| 4 HNO ₃ 5% / H ₂ O ₂ 10% | 724.9 | 721.9 | 3.0 |
| 5 Vide | 568.1 | 567.6 | 0.5 |
| 6 KMnO ₄ 4% / H ₂ SO ₄ 10% | 800.6 | 799.5 | 1.1 |
| 7 KMnO ₄ 4% / H ₂ SO ₄ 10% | 670.0 | 669.6 | 0.4 |
| 8 Gel de Silice | 1718.5 | 1710.0 | 8.5 |
| | | Poids Final | 121.3 |

| Préparation | Préparé par | Récupéré par | Approuvé par |
|-------------|-------------|--------------|--------------|
| Date | | | |
| On site | | | |
| Laboratoire | | | |

Gestion des volumes des Barboteurs

| Barboteur # | Volume d'eau Condensé | Volume de solution Initiale | Différence | Code |
|--|-----------------------|-----------------------------|------------------------------|--------------------------------------|
| 1 | 84.9 | + 100 mL | 184.9 mL ⁽¹⁾ | |
| 2 | 15.6 | + 0 mL | 15.6 mL ⁽²⁾ | |
| Rincage à l'eau (poids) | g | g | 200.5 mL ⁽³⁾ | |
| Sous-total (1+2+3) | | | mL ⁽⁴⁾ | |
| Aliquot (Contenant 3B) | | | (-) 100 mL ⁽⁵⁾ | MAI01-A1-PMAHG-FOUR1-(1+2-A)-0134.69 |
| Volume final (4-5) | | | mL ⁽⁶⁾ | |
| Divise par 20 | | | divise par 20 ⁽⁷⁾ | |
| Rincage 100 ml HNO ₃ Volume d'acide HNO ₃ conc. à ajouter | | | + 100 mL ⁽⁸⁾ | |
| Volume final (5+6+8) (Contenant 3A) | | | mL ⁽⁹⁾ | MAI01-A1-PMAHG-FOUR1-(1+2-M)-0134.70 |

| | | | | |
|------------------------------------|-----|----------|--------------------------|---------------------------------------|
| 3 | 7.3 | + 100 mL | 107.3 mL ⁽¹⁰⁾ | |
| 4 | 3.0 | + 100 mL | 103.0 mL ⁽¹¹⁾ | |
| Rincage HNO ₃ 0.1N | g | 100 g | 100.0 mL ⁽¹²⁾ | mL = gramme) 1.003 g/mL |
| Total (10 + 11 + 12) (Contenant 4) | | | 310.3 mL ⁽¹³⁾ | MAI01-A1-PMAHG-FOUR1-(3+4+RM)-0134.71 |

| | | | | |
|---------------------------------|-----|--------|-------------------------|----------------------------------|
| 5 | 0.5 | + 0 mL | 0.5 mL ⁽¹⁴⁾ | |
| Rincage HNO ₃ 0.1N | g | 20 g | 20.0 mL ⁽¹⁵⁾ | mL = gramme) 1.003 g/mL |
| Total (14 + 15) (Contenant 5 A) | | | 20.5 mL ⁽¹⁶⁾ | MAI01-A1-PMAHG-FOUR1-(5)-0134.72 |

| | | | | |
|--|-----|----------|--------------------------|------------------------------------|
| 6 | 1.1 | + 100 mL | 101.1 mL ⁽¹⁷⁾ | |
| 7 | 0.4 | + 100 mL | 100.4 mL ⁽¹⁸⁾ | |
| Rincage (KMnO ₄) | g | 100 g | 100.0 mL ⁽¹⁹⁾ | mL = gramme) 1.124 g/mL |
| Rincage (H ₂ O) | g | 100 g | 100.0 mL ⁽²⁰⁾ | |
| Total (17 + 18 + 19+ 20) (Contenant 5 B) | | | 400.5 mL ⁽²¹⁾ | MAI01-A1-PMAHG-FOUR1-(6+7)-0134.73 |

SAG-7 HCl 8N 25 ml } 125 ml tot
H₂O 100 ml }