

Appendix G12

Report: 2014 Air Quality and Dustfall Monitoring Report



MEADOWBANK GOLD PROJECT

**2014 Air Quality and Dustfall
Monitoring Report**

In Accordance with NIRB Project Certificate No.004

Prepared by:
Agnico Eagle Mines Limited – Meadowbank Division

March, 2015

EXECUTIVE SUMMARY

The 2014 air quality and dustfall monitoring program at Meadowbank was conducted in support of the Air Quality and Dustfall Monitoring Plan - Version 2 (November, 2013).

The objective of the 2014 program was to measure dustfall, total suspended particulates (TSP), PM₁₀, PM_{2.5} and NO₂ 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 Standards 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} (May, 2013) are also referenced.

Of 120 TSP samples obtained, one exceeded the relevant GN standard of 120 µg/m³, with a concentration of 219 µg/m³. This sample was obtained from DF-2, which is located immediately south (downwind) of the main mine plant area and adjacent to the TCG contractor area. Annual average TSP values at each station did not exceed the GN standard for that time period of 60 µg/m³. For PM₁₀, four samples exceeded the BC Air Quality Objective of 50 µg/m³ for the 24-h average, with values of 53, 63, 66 and 69 µg/m³. For PM_{2.5}, one sample exceeded the GN standard of 30 µg/m³ and the Canadian Ambient Air Quality Standard of 28 µg/m³ for the 24-h average, with a concentration of 56 µg/m³. No suspended particulates exceeded the relevant GN or Canadian standards for annual averages.

The Alberta recreational area guideline for dustfall was exceeded in 5 out of 44 samples, which is lower than 2013 (11 exceedances). 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 3.3 ppb.

Weather data collected onsite in 2014 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 2014 were 179,889 tonnes CO₂ equivalent. A year-over-year decline has been observed, with 195,686 tonnes in 2013 and 202,201 tonnes CO₂ equivalent in 2012.

A summary of incinerator stack testing results is provided. The result for mercury (average) was 64.09 µg/Rm³ @11%O₂. This exceeded the Environment Canada guideline of 20 µg/Rm³. Although AEM has an alkaline battery recycling program whereby batteries are collected in numerous depots (and shipped south yearly), the investigation revealed that there could still be a significant volume of batteries disposed of with regular solid waste destined for the onsite incinerator. Alkaline batteries contain mercury, thus this would seem to be the most likely source. Incomplete combustion in the primary or secondary chamber may have been a small contributing factor on the dates of testing. By comparison the results for mercury in 2012 were <0.08 µg/Rm³ @11%O₂. As a result, AEM has implemented a comprehensive site wide information program to reinforce the requirements of the recycling program. This includes regular meetings with individual departments as well as placing information on the AEM intranet site. In addition stack testing will take place again in the summer of 2015.

Overall, there are no apparent trends towards increasing air quality concerns at the Meadowbank site.

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SECTION 1 • INTRODUCTION

1.1 OBJECTIVE

Since November, 2011, Agnico Eagle Mines Ltd. (AEM) 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 occurred in 2014 according to 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 and mitigating potential environmental effects.

The parameters measured in 2014, 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 (AEM, 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 mine site 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, 2014.

1.2.2 DF-2

Station DF-2 is located at the northern corner of South Camp Island, near the TCG contractor area. PM_{10} and $PM_{2.5}$ were monitored from January through November, 2014, when a mechanical malfunction occurred with the instrument. TSP, NO_2 and dustfall were monitored from January through December, 2014.

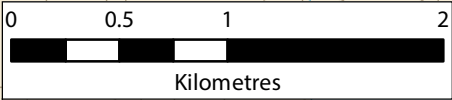
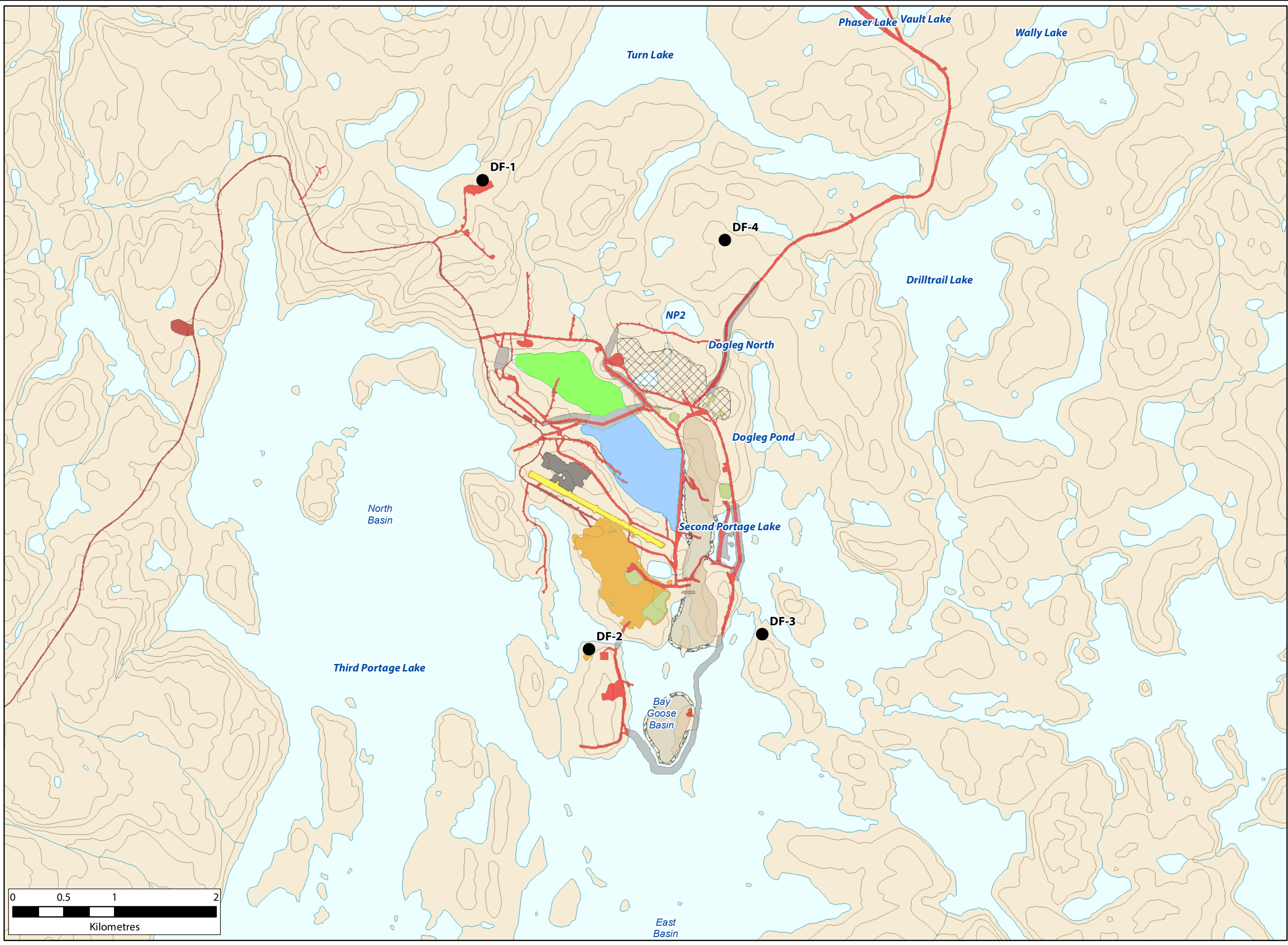
1.2.3 DF-3

Station DF-3 is approximately 1,800 m east of the East Dike. Second Portage Lake is to the west and east. Dustfall only was monitored at this location from January through December, 2014.

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, AEM 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, 2014.



- Legend**
- Air Quality & Dust Monitoring Location
 - Quarry
 - AWAR Quarry
 - Dikes
 - Portage Attenuation Facility
 - Tailings Storage Facility
 - Roads
 - AWAR
 - Stockpiles
 - Facility
 - Airstrip
 - Portage Rock Storage Facility
 - Mine Pit Area
 - Pit Cap

Air Quality & Dust Monitoring Locations



77 Wyndham Street South • Guelph ON N1E 5R3
T 519.822.1609 • F 519.822.5389 • www.dougan.ca

PROJECT: DA11-062-03

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

	DATE: MARCH 2013
	SCALE: 1:35,000
	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.

SECTION 2 • REGULATORY STANDARDS

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

Table 2. Government of Nunavut Environmental Standards 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	Standard	
		$\mu\text{g}/\text{m}^3$	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 2013, the Canadian Council of Ministers of the Environment adopted new Canadian Ambient Air Quality Standards (PM_{2.5} and ozone only). Although these have not yet been incorporated into Nunavut's regulations, the published 24-h value for PM_{2.5} of 28 $\mu\text{g}/\text{m}^3$ and annual average standard of 10 $\mu\text{g}/\text{m}^3$ are addressed here for reference.

No GN standard is available for coarse particulate matter (PM₁₀) so results were compared to the BC Air Quality Objective (August, 2013) of 50 $\mu\text{g}/\text{m}^3$.

Likewise, no standards for dustfall are available for Nunavut. Results of the dustfall analysis were compared to the Alberta Environment Department recreational area guideline (August, 2013) of 0.53 $\text{mg}/\text{cm}^2/30\text{d}$ and commercial/industrial guideline of 1.58 $\text{mg}/\text{cm}^2/30\text{d}$, 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 2014, AEM 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_{10-2.5}). 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 Standards (2011), concentrations of particulates should be calculated using air volumes normalized to 25°C and 101.3kPa (standard temperature and pressure; STP). The Partisol instrument can calculate and store the V_{STD} value for

each filter's sampling period, but the default is to record the actual volume under ambient conditions (non-STP-normalized), as per the USEPA method. Since the default settings were not adjusted in 2014, standardized volumes were calculated from average temperature and pressure recorded by the unit during the sampling period, whenever possible. These values were available for all dates except February 10, 16 and 22 for the dichotomous unit. Estimates of suspended particulate concentrations using actual 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.

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

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, AEM's Environmental Technicians are now able to provide onsite maintenance and calibration, so units were nearly fully operational in 2014.

A total of 2 filters were damaged in the instrument or during shipment and were not analyzed. This is a substantial improvement over the 12 filters damaged in 2013.

On August 3 and November 7, the instrument log indicated a power failure at DF-2. Since sample results are in line with others obtained, they were included in the dataset, but should be interpreted with caution.

Additionally, in 27 out of 51 samples at DF-1, and 10 out of 54 samples at DF-2, TSP results were lower than PM₁₀ results. 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 (Doris North - Rescan, 2009). A similar frequency of exceedances was observed at DF-1 in 2013. Rescan (2009) indicated this was potentially due to a leak in the system, or laboratory measurement error. The samplers at Meadowbank undergo regular calibration, but considering the harsh operating conditions, an issue with the instrument is possible. Unlike previous years, the error occurred for a large range of TSP concentrations. While contamination of the travel blank occurred in 6 out of 12 shipments, no clear correlation with the TSP exceedances was observed. Efforts to determine the reason for this problem will continue, but since all results were lower than the GN standard, they are not handled separately in the dataset.

TSP concentrations were generally highest in April, with one exceedance of the GN 24-h standard of 120 µg/m³ at 219 µg/m³. The TSP standard is mainly based on potential for reduced visibility, soiling of structures and vehicles, and smothering of vegetation (not health concerns), so exceedance of one sample is not expected to result in measureable environmental impact. Additional actions were recommended to help reduce dust levels onsite in the 2013 report, and the maximum observed TSP concentration was reduced from 459 µg/m³.

The annual geometric mean concentrations of TSP at DF-1 and DF-2 were 6.5 and 12.8 µg/m³, respectively. These estimates are well below the annual GN standard of 60 µg/m³, and are similar to the values of 8 and 12 µg/m³ obtained in 2012, and 4.6 and 14.0 µg/m³ obtained in 2013.

The highest PM₁₀ concentrations were observed at DF-2 between April and November. In total, four samples exceeded the BC Air Quality Objective of 50 µg/m³ for 24-h average PM₁₀, with values of 63 µg/m³ (DF-1), 53, 66 and 69 µg/m³ (DF-2). Average concentrations were 10 and 11 µg/m³ at DF-1 and DF-2, respectively.

One sample exceeded the GN standard of 30 µg/m³ for 24-h average PM_{2.5}, and the Canadian Ambient Air Quality Standard of 28 µg/m³, with a concentration of 56 µg/m³. Annual average concentrations of PM_{2.5} were 1 and 5 µg/m³ 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.

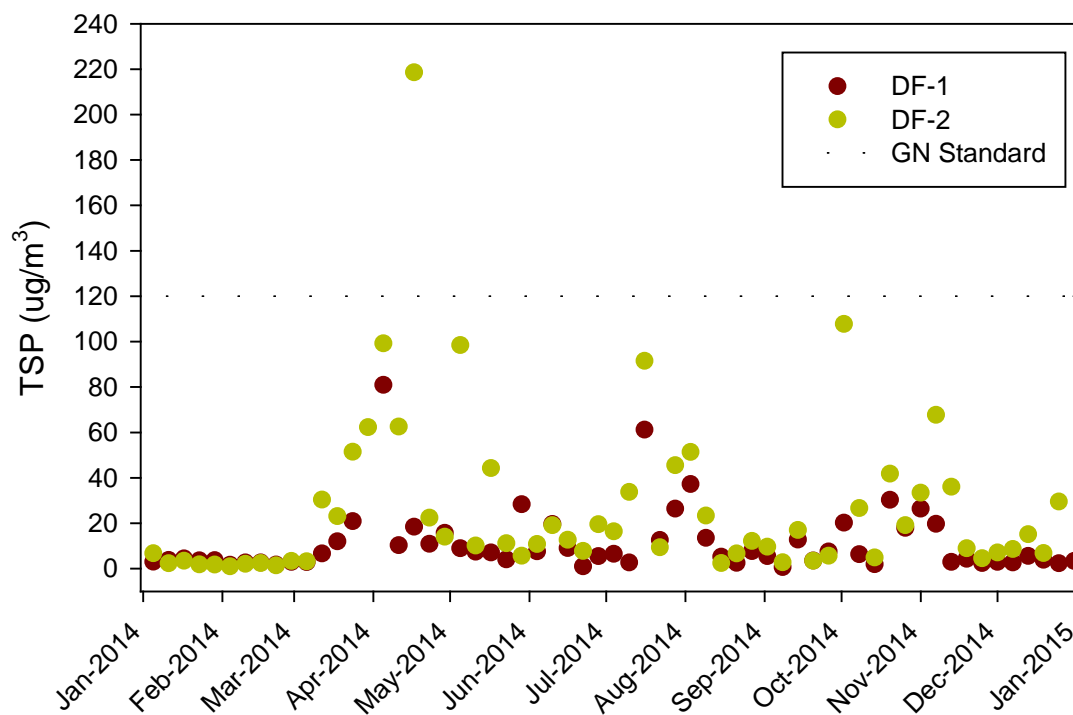


Figure 2. 24-h average concentrations of total suspended particulates (TSP) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN standard for ambient air quality.

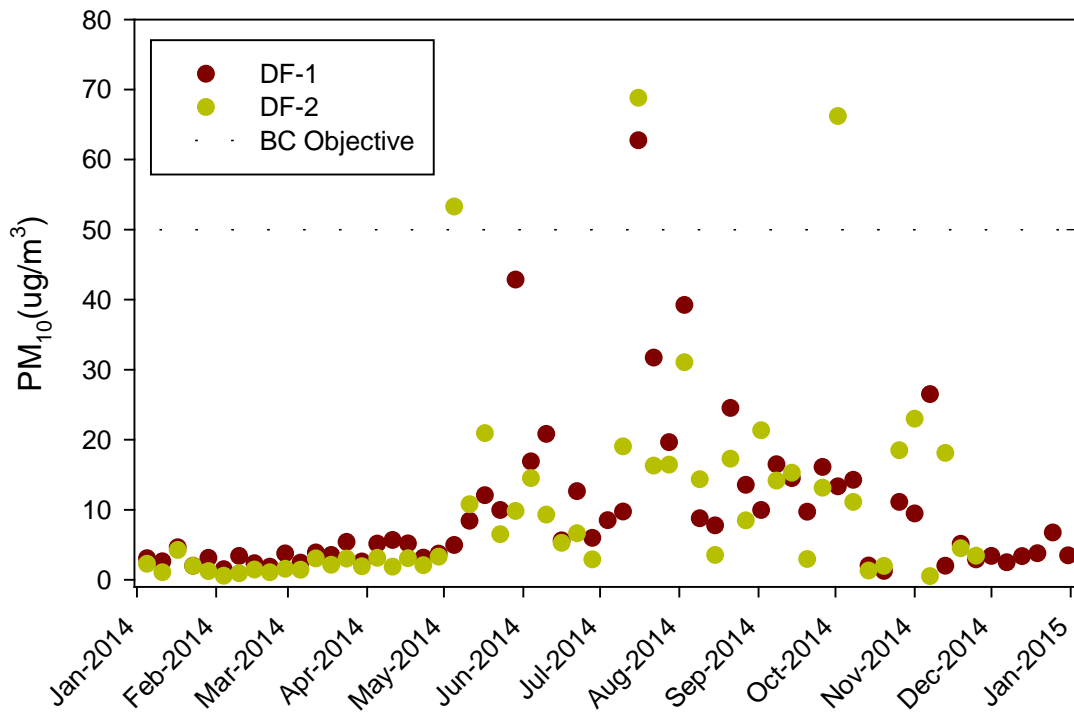


Figure 3. 24-h average concentration of airborne particulate matter less than 10 microns (PM₁₀) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the BC Air Quality Objective for this parameter.

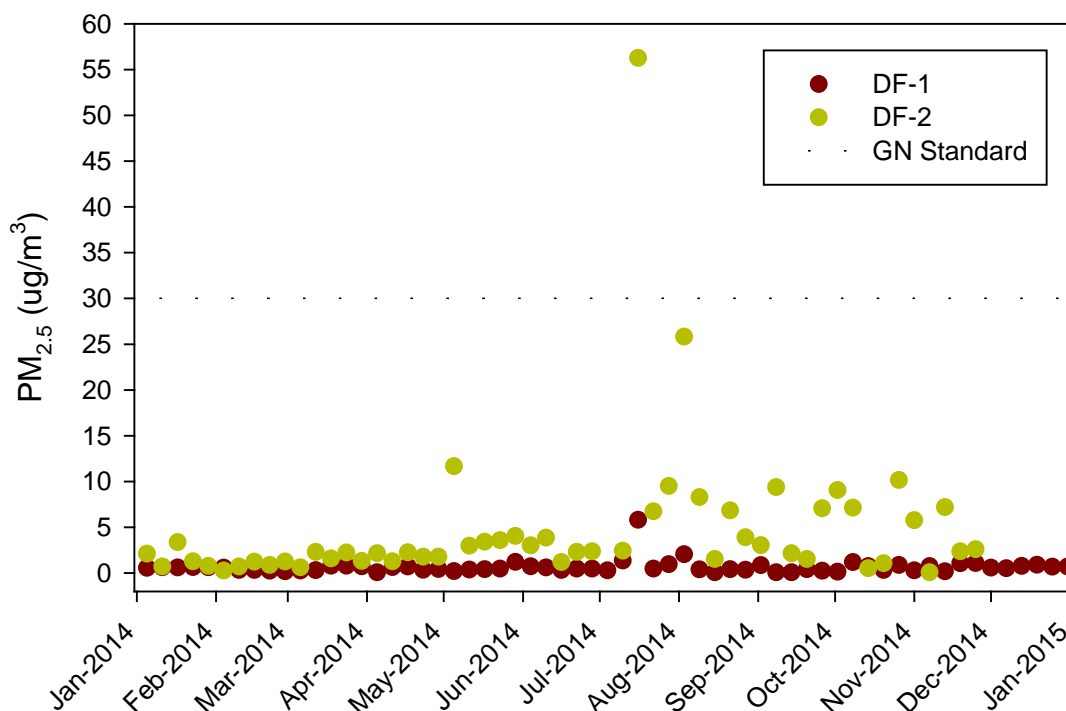


Figure 4. 24-average concentrations of airborne particulate matter less than 2.5 microns (PM_{2.5}) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN standard for this parameter.

4.2 DUSTFALL

Results of the 2014 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 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 5 out of 44 samples, which is lower than 2013 (11 exceedances) and 2012 (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 mine site.

Although dustfall rates were typically lowest at DF-4, no other significant trends by location are apparent. Interestingly, dustfall peaks occurred particularly for DF-1 (near emulsion plant) in spring (April) and late fall (October). Relatively low dustfall values in May – September (as observed in

2013) may reflect increased efforts to manage dust on site roads through use of dust suppressants (calcium chloride application) and water trucks.

In 2013, recommendations were made to address issues of rust from the dustfall stands getting into samples. The stands were modified for 2014 by elevating the canisters compared to the metal holder, and no rust particles were observed in samples. In addition, recommendations were made in 2013 to revise airstrip watering procedures for maximum dust control. These were followed in 2014, and may have contributed to the reduction in the number of exceedances of the recreational area limit observed this year.

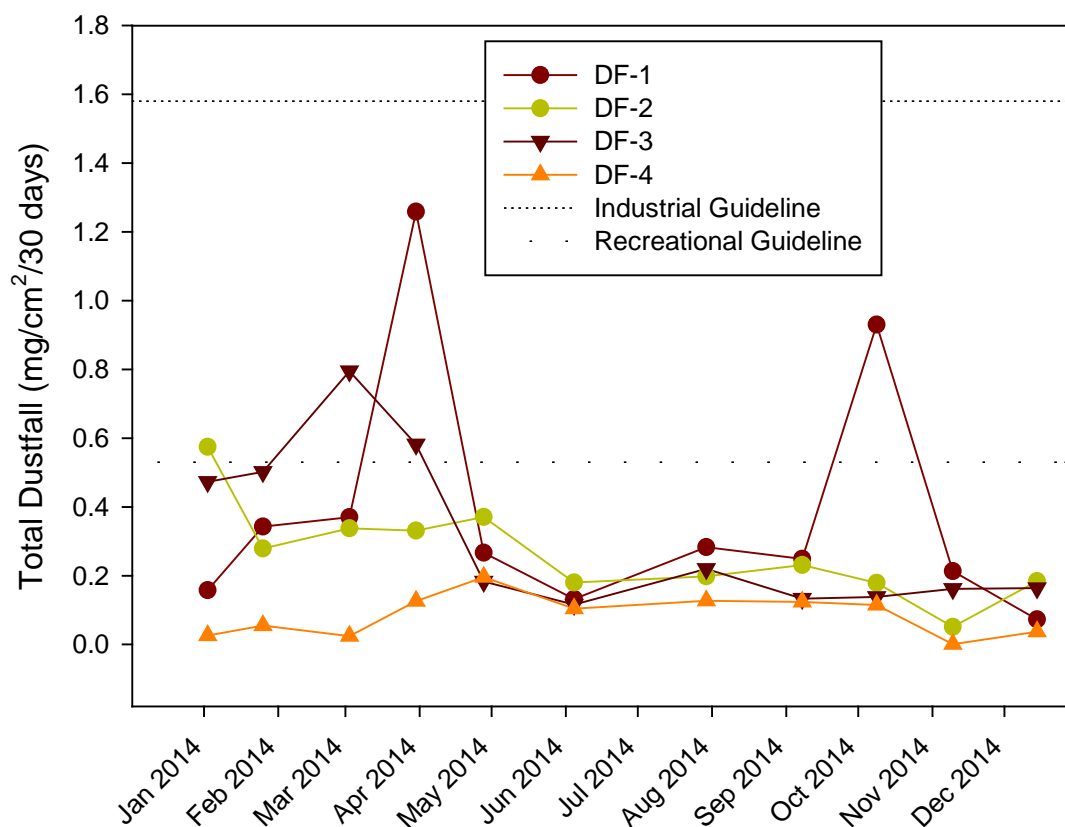


Figure 5. Total 30-day-normalized dustfall at DF-1 – 4 at the Meadowbank site. Points represent start date of sample collection. Dashed line indicates the Alberta Environment Department's recreational area guideline of 0.53 mg/cm²/30d, and the dotted line indicates the industrial area guideline of 1.58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

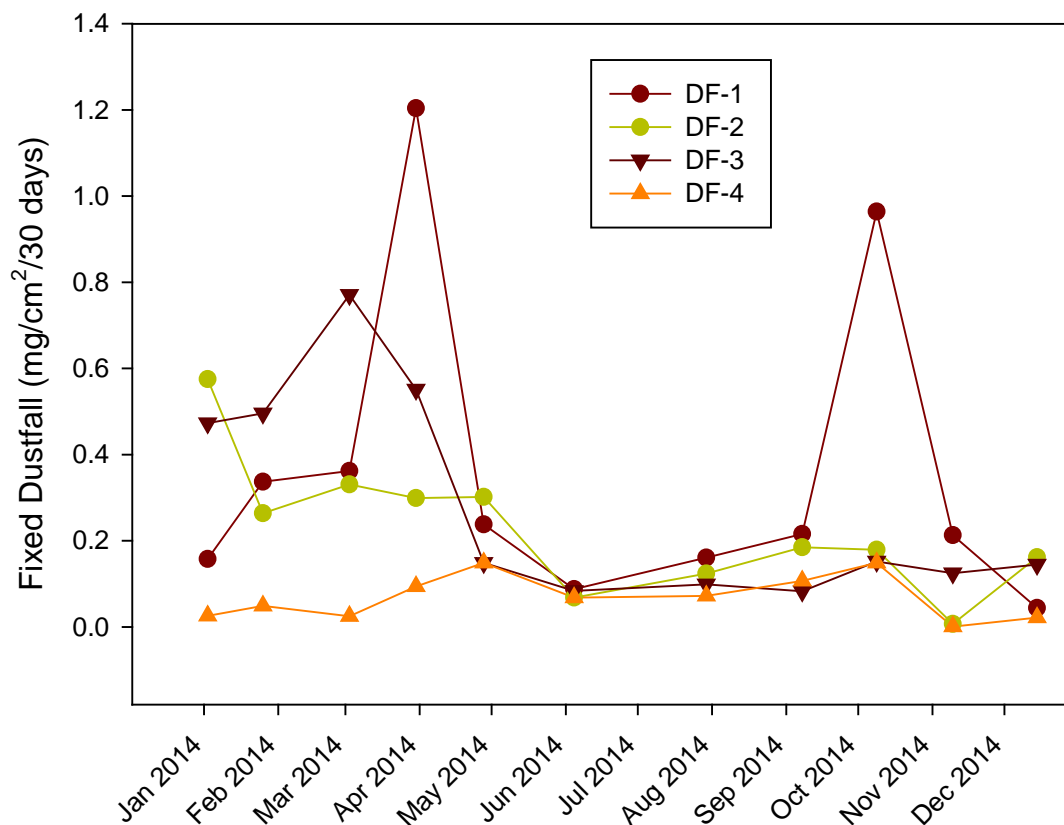


Figure 6. Fixed (non-combustible) 30-day-normalized dustfall at DF-1 – 4 at the Meadowbank site. Points represent start date of sample collection.

4.3 NO₂

Monthly-average NO₂ trends in 2014 are provided in Figure 7. Samples are referred to by the collection start date. One canister was lost in transit (September 7 – October 8). Concentrations of NO₂ vary between non-detect (<0.1) and 3.3 ppb. This maximum is slightly lower than the maximums of 5.3 and 6.8 ppb observed in 2013 and 2012, respectively. At most time points, concentrations are 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 0.5 ppb and 1.9 ppb for DF-1 and DF-2, respectively (January 2, 2014 – January 18, 2015). These are both well below the Government of Nunavut Ambient Air Quality Standard of 32 ppb for the annual average.

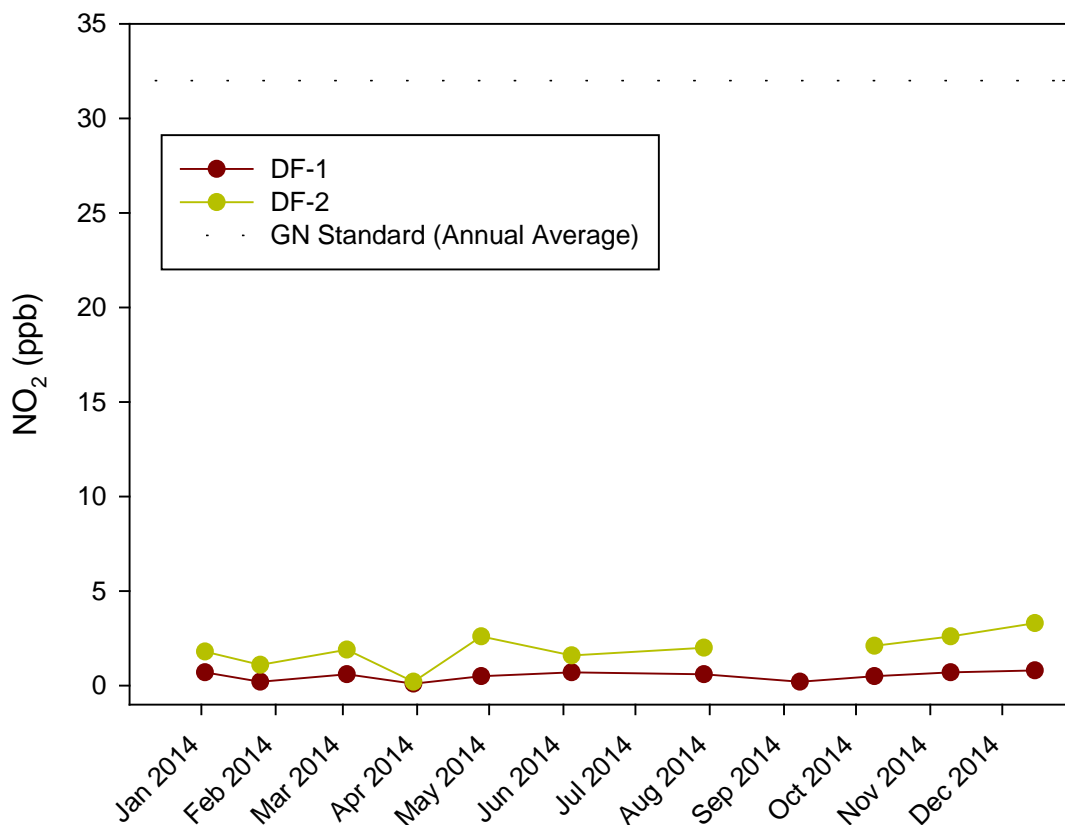


Figure 7. Monthly average concentration of NO₂ at DF-1 and DF-2. Points represent start date of sample collection. Dashed line indicates GN standard for the annual average.

4.4 QA/QC

QA/QC procedures in 2014 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).

AEM technicians are now trained to calibrate and maintain Partisol instruments on site, and travel blanks were used as part of particulate sample submissions. Several laboratory records indicated contamination of travel blanks up to 20 µg/filter (MDL = 3 µg/filter). Detections in travel blanks occurred in 6 out of 12 submissions. However, detections in laboratory blanks also occurred in at least 3 submissions. Since there were few exceedances of regulatory limits, the data was not handled separately. However, the laboratory will be contacted to review filter handling procedures and assess methods to reduce the possibility for contamination.

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

AEM 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 2014 were 179,889 tonnes CO₂ equivalent. A year-over-year decline has been observed, with 195,686 tonnes in 2013 and 202,201 tonnes CO₂ equivalent in 2012.

SECTION 7 • INCINERATOR STACK TESTING

Incinerator stack testing is conducted under AEM's Incinerator Waste Management Plan (AEM, 2014), and results are summarized here. As per discussions with Environment Canada, incinerator stack testing is undertaken every two years. Prior to 2014, incinerator stack testing was completed by Exova Consultants on October 2012. Therefore, in accordance with AEM's Incinerator Waste Management Plan, stack testing was conducted from July 11 to July 13, 2014 by Exova. The "*Stack sampling tests Report*" is provided as Appendix C. Results from the testing indicated that the average (of 3 tests) measured mercury level ($64.09 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{ v/v } \text{O}_2$) exceeded the Environment Canada (EC) guideline ($20 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{ v/v } \text{O}_2$). Laboratory re-analysis confirmed these results. As a result an investigation with Meadowbank's Site Services Department was performed to determine the potential sources. Although AEM 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. Alkaline batteries contain mercury, thus 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. By comparison it should be noted that the 2012 result for mercury was $<0.08 \mu\text{g} / \text{Rm}^3 @ 11 \% \text{ v/v } \text{O}_2$. The dioxin and furans results ($53.6 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{ v/v } \text{O}_2$) are well below the EC guideline ($80 \text{ pg TEQ} / \text{Rm}^3 @ 11 \% \text{ v/v } \text{O}_2$).

As a result, AEM has implemented a comprehensive site wide information program to reinforce the requirements of the recycling program. This includes regular meetings with individual departments as well as placing information on the AEM intranet site. In addition stack testing will take place again in the summer of 2015.

SECTION 8 • MONITORING SUMMARY

8.1 COMPARISON TO REGULATORY GUIDELINES

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

One sample exceeded the GN 24-h average TSP standard of 120 µg/m³, with a concentration of 219 µg/m³.

Four samples exceeded the BC Air Quality Objective of 50 µg/m³ for 24-h average PM₁₀, with values of 53, 63, 66 and 69 µg/m³.

One sample exceeded the GN standard of 30 µg/m³ and the Canadian Ambient Air Quality Standard of 28 µg/m³ for 24-h average PM_{2.5}, with a concentration of 56 µg/m³.

No parameters exceeded the relevant GN or Canadian standards for annual averages.

8.1.2 Dustfall Guideline

The Alberta Environment Department's recreational area dustfall guideline was exceeded in 5 out of 44 samples, which is lower than previous years. No samples exceeded the industrial area guideline.

8.1.3 NO₂

The GN standard for NO₂ was not exceeded in 2014. The maximum one-month average concentration was nearly 10 times lower than the standard for the annual average.

8.1.4 Incinerator Emissions - Hg and Dioxin

Results from stack testing indicated that the average (of 3 tests) measured mercury level (64.09 µg / Rm³ @ 11 % v/v O₂) exceeded the Environment Canada (EC) guideline (20 µg / Rm³ @ 11 % v/v O₂). Laboratory re-analysis confirmed these results.

The dioxin and furans results (53.6 pg TEQ / Rm³ @ 11 % v/v O₂) are well below the EC guideline (80 pg TEQ / Rm³ @ 11 % v/v O₂).

8.2 TEMPORAL AND SPATIAL TRENDS

For TSP, minimum concentrations generally occurred in winter (December – March), and relatively elevated concentrations tended to occur for shorter durations with reductions in particle size. 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 lowest in May - September, potentially as a result of spring precipitation and dust suppression during the summer months. Maximum concentrations continue to occur at DF-1, and minimum concentrations at DF-4.

Concentrations of NO₂ were always 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 2013, and AEM's responses to each in 2014 are indicated below.

- The Partisol instrument should be set to record STP-normalized volume such that results can more readily be compared with GN standards. If this is not possible, recorded values of ambient average temperature and pressure will be downloaded for all sampling periods.
 - Complete - values were downloaded.
- The Partisol instruments are now calibrated onsite so that they are operational throughout the year (not offline for several months at a time).
 - This practice has resulted in significant improvements in operation time, and will be continued.
- A review of Partisol filter cartridge handling procedures will be conducted to ensure minimal contamination during transport.
 - Despite an internal review of procedures, a number of trip blanks were still reported as above detection for particulates in 2014. However, several laboratory blanks were also above detection limits, so AEM will work with the contracted laboratory to determine whether further reductions in contamination are possible.
- Stands for the dustfall canisters will be cleaned and the canisters will be raised on the stand to reduce the possibility of rust deposition in the dustfall sample.
 - Completed successfully – no rust particulates identified in 2014.
- Calcium chloride solid flakes will be used instead of liquid CaCl as it has a longer lasting effect.
 - Both products were used in 2014.
- Better timing and communication procedures with the water trucks will be implemented to ensure maximum mitigation of dust from the airstrip.
 - Completed successfully – possible reason for generally lower dustfall rates compared to 2013, particularly in summer months.

The following actions will be implemented in 2015:

- AEM will continue to investigate potential reasons for why reported PM₁₀ values occasionally exceed TSP, and rectify if possible.
- The Partisol instrument should be set to record STP-normalized volume such that results can more readily be compared with GN standards. If this is not possible, recorded values of ambient average temperature and pressure will be downloaded for all sampling periods.
- All environment department technicians will be trained to audit the Partisol units to improve the frequency of maintenance.

- The analytical laboratory will be contacted to review of Partisol filter cartridge handling procedures to ensure minimal contamination, as measured through laboratory blanks and travel blanks.
- Information campaign will be undertaken to reinforce the battery recycling program at Meadowbank. Also stack testing of incinerator emissions will be undertaken to verify the source of the mercury exceedance.

SECTION 10 • REFERENCES

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

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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

Table -ApX 1. Average temperature, wind speed and wind direction for all available dates in 2013 at the Meadowbank site.

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-01-01	-37.8	-39.0	-36.1	4.14	305
2014-01-02	-37.7	-38.6	-36.4	3.13	299
2014-01-03	-36.7	-38.4	-33.7	1.15	117
2014-01-04	-29.0	-33.8	-20.2	2.76	81
2014-01-05	-22.6	-28.5	-20.3	5.99	27
2014-01-06	-32.6	-36.1	-27.1	8.41	336
2014-01-07	-34.5	-36.1	-29.9	4.54	322
2014-01-08	-32.7	-34.7	-29.8	8.04	328
2014-01-09	-31.1	-33.7	-29.3	4.36	166
2014-01-10	-28.9	-31.3	-27.1	3.70	34
2014-01-11	-32.2	-35.0	-29.1	3.07	265
2014-01-12	-28.2	-31.8	-25.2	5.54	161
2014-01-13	-37.4	-39.3	-31.8	1.69	319
2014-01-14	-35.2	-39.2	-29.8	1.06	80
2014-01-15	-31.9	-38.0	-28.7	3.82	305
2014-01-16	-36.2	-38.9	-30.2	1.28	138
2014-01-17	-27.9	-34.2	-24.8	5.77	265
2014-01-18	-36.8	-38.6	-34.2	6.34	309
2014-01-19	-39.6	-41.9	-36.0	8.54	332
2014-01-20	-37.8	-40.7	-34.9	8.91	332
2014-01-21	-39.1	-39.9	-37.0	6.42	313
2014-01-22	-33.0	-37.8	-26.8	8.78	322
2014-01-23	-26.7	-30.6	-24.2	5.29	235
2014-01-24	-23.5	-29.5	-19.5	8.83	331
2014-01-25	-34.3	-36.5	-29.4	11.38	328
2014-01-26	-36.1	-37.5	-34.7	5.51	330
2014-01-27	-35.1	-37.0	-32.4	8.37	324
2014-01-28	-29.1	-32.5	-27.4	8.14	321
2014-01-29	-29.0	-31.3	-26.5	9.94	334
2014-01-30	-27.1	-31.6	-24.4	8.80	327
2014-01-31	-24.4	-30.7	-21.9	6.38	329
2014-02-01	-28.7	-31.3	-25.8	8.02	323
2014-02-02	-30.0	-31.9	-26.6	7.54	320
2014-02-03	-27.4	-30.9	-23.0	5.19	356
2014-02-04	-25.0	-27.1	-22.1	10.04	333
2014-02-05	-21.3	-25.2	-17.3	8.81	315
2014-02-06	-19.7	-23.8	-16.0	12.37	310

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-02-07	-27.3	-29.1	-22.8	6.79	336
2014-02-08	-28.1	-31.3	-24.2	9.89	336
2014-02-09	-28.7	-30.9	-26.7	7.12	314
2014-02-10	-31.6	-33.3	-29.2	2.94	257
2014-02-11	-30.5	-33.5	-28.8	2.94	173
2014-02-12	-36.5	-40.2	-32.0	1.43	272
2014-02-13	-36.8	-41.0	-32.5	1.42	174
2014-02-14	-32.2	-39.0	-29.5	1.63	319
2014-02-15	-39.3	-41.1	-35.9	1.62	335
2014-02-16	-36.5	-41.4	-29.8	2.97	159
2014-02-17	-26.1	-30.8	-21.5	7.12	151
2014-02-18	-32.8	-35.2	-30.4	4.57	324
2014-02-19	-29.9	-35.1	-27.1	2.43	138
2014-02-20	-27.4	-28.5	-25.8	2.82	127
2014-02-21	-27.2	-32.5	-23.4	2.50	354
2014-02-22	-30.9	-33.5	-27.6	3.78	360
2014-02-23	-33.2	-35.3	-31.4	6.93	324
2014-02-24	-32.2	-35.8	-26.9	7.01	295
2014-02-25	-34.5	-36.1	-32.8	12.18	321
2014-02-26	-34.9	-38.7	-32.7	10.77	320
2014-02-27	-37.3	-39.1	-35.3	12.85	330
2014-02-28	-33.8	-36.7	-30.7	5.69	6
2014-03-01	-34.5	-37.4	-30.6	12.18	325
2014-03-02	-32.5	-34.8	-30.8	10.48	334
2014-03-03	-32.9	-34.6	-31.1	6.95	318
2014-03-04	-28.9	-33.4	-22.9	4.61	311
2014-03-05	-22.8	-26.2	-19.1	4.91	287
2014-03-06	-21.1	-26.2	-19.0	6.06	298
2014-03-07	-29.2	-32.1	-26.2	3.37	270
2014-03-08	-28.3	-31.4	-24.6	5.78	271
2014-03-09	-30.4	-32.5	-28.6	4.23	279
2014-03-10	-32.2	-35.1	-26.6	1.40	319
2014-03-11	-36.0	-38.2	-34.1	6.75	323
2014-03-12	-33.4	-37.0	-30.3	3.80	274
2014-03-13	-31.7	-34.6	-26.5	0.70	342
2014-03-14	-33.5	-36.4	-30.8	2.23	349
2014-03-15	-34.2	-38.3	-29.6	3.25	307
2014-03-16	-31.1	-34.7	-26.6	2.00	243
2014-03-17	-28.4	-33.2	-23.4	5.35	108

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-03-18	-25.8	-30.6	-21.5	6.15	115
2014-03-19	-22.3	-25.2	-19.3	8.96	147
2014-03-20	-19.9	-22.4	-18.1	5.17	105
2014-03-21	-26.6	-31.4	-22.0	7.80	343
2014-03-22	-28.5	-32.2	-24.0	8.08	319
2014-03-23	-21.1	-24.7	-17.6	6.92	285
2014-03-24	-29.5	-32.7	-22.1	9.43	323
2014-03-25	-25.4	-27.9	-23.1	7.30	319
2014-03-26	-27.2	-29.5	-24.5	5.60	306
2014-03-27	-29.7	-31.9	-26.4	4.11	309
2014-03-28	-30.4	-35.0	-26.6	2.13	85
2014-03-29	-27.9	-32.0	-23.9	4.45	92
2014-03-30	-24.9	-28.6	-20.5	5.84	43
2014-03-31	-28.9	-31.6	-26.4	7.89	322
2014-04-01	-29.2	-33.9	-24.2	1.49	231
2014-04-02	-28.7	-32.2	-25.4	2.48	341
2014-04-03	-29.6	-33.5	-25.5	4.92	261
2014-04-04	-26.5	-30.7	-23.6	6.19	276
2014-04-05	-23.8	-29.7	-18.5	5.79	179
2014-04-06	-14.3	-19.2	-9.1	10.21	133
2014-04-07	-16.9	-25.3	-12.0	6.85	101
2014-04-08	-25.9	-28.5	-23.3	7.23	314
2014-04-09	-26.5	-29.8	-23.1	5.31	317
2014-04-10	-25.2	-28.7	-21.9	5.05	345
2014-04-11	-25.3	-29.0	-21.3	10.09	322
2014-04-12	-25.3	-27.0	-22.4	13.44	314
2014-04-13	-25.9	-28.9	-22.4	10.15	310
2014-04-14	-25.4	-29.3	-21.3	9.34	318
2014-04-15	-23.0	-27.8	-18.7	6.90	324
2014-04-16	-20.5	-24.5	-17.1	5.89	332
2014-04-17	-15.7	-20.5	-10.9	6.39	276
2014-04-18	-18.9	-23.2	-14.7	5.88	314
2014-04-19	-15.4	-24.6	-6.6	4.73	195
2014-04-20	-9.5	-14.7	-5.1	3.54	181
2014-04-21	-10.6	-16.7	-4.8	1.48	200
2014-04-22	-10.5	-15.1	-6.8	2.97	351
2014-04-23	-11.7	-17.7	-8.1	3.46	4
2014-04-24	-18.1	-22.4	-13.3	4.61	305
2014-04-25	-16.0	-21.6	-11.2	4.11	306

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-04-26	-16.7	-22.1	-14.1	3.21	336
2014-04-27	-20.1	-26.3	-15.4	2.22	230
2014-04-28	-12.1	-21.2	-5.4	7.80	143
2014-04-29	-5.3	-7.1	-3.4	10.59	155
2014-04-30	-2.0	-5.1	0.6	3.44	178
2014-05-01	0.2	-2.6	3.4	4.48	207
2014-05-02	0.4	-3.5	3.9	3.59	109
2014-05-03	-4.6	-9.6	-0.8	6.73	45
2014-05-04	-9.6	-12.7	-6.0	8.11	360
2014-05-05	-7.7	-11.9	-2.9	6.80	17
2014-05-06	-5.2	-8.5	-0.6	5.62	27
2014-05-07	-6.0	-11.7	0.4	4.27	10
2014-05-08	-2.7	-8.1	1.9	2.04	71
2014-05-09	-2.5	-5.8	1.0	4.69	103
2014-05-10	-3.8	-5.8	-2.0	5.67	100
2014-05-11	-1.3	-4.5	3.0	3.78	90
2014-05-12	-4.0	-5.7	-1.7	3.53	156
2014-05-13	-3.1	-6.4	0.7	4.98	237
2014-05-14	-5.8	-7.7	-4.1	4.09	305
2014-05-15	-5.3	-10.2	0.9	2.47	267
2014-05-16	-3.4	-5.7	0.7	6.86	280
2014-05-17	-1.2	-5.2	3.5	6.19	256
2014-05-18	-5.7	-7.5	-4.1	7.47	348
2014-05-19	-5.3	-8.3	-1.6	3.54	245
2014-05-20	-1.6	-6.8	3.0	6.93	181
2014-05-21	-4.1	-6.8	0.3	4.79	334
2014-05-22	-3.2	-6.1	0.3	4.33	86
2014-05-23	0.6	-0.9	2.6	4.43	84
2014-05-24	2.0	0.7	3.8	3.43	96
2014-05-25	3.1	0.9	7.1	7.69	128
2014-05-26	0.7	-1.7	2.2	8.11	296
2014-05-27	1.6	-3.6	6.7	3.23	78
2014-05-28	4.7	0.6	11.6	4.65	115
2014-05-29	2.9	-2.1	8.5	3.05	24
2014-05-30	8.2	1.4	15.9	4.73	171
2014-05-31	5.0	1.8	7.8	6.94	115
2014-06-01	2.3	-1.6	5.9	9.51	14
2014-06-02	-2.2	-5.3	1.1	6.45	332
2014-06-03	-2.1	-4.3	1.1	4.74	16

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-06-04	-2.8	-4.7	-0.8	9.75	284
2014-06-05	-2.4	-5.0	-0.1	8.28	314
2014-06-06	-0.7	-2.1	1.9	5.25	323
2014-06-07	2.6	-1.0	7.1	4.57	336
2014-06-08	3.6	0.1	8.0	6.46	12
2014-06-09	1.7	0.2	3.7	6.58	359
2014-06-10	2.4	-0.5	6.0	6.34	355
2014-06-11	5.4	-1.6	9.7	2.80	174
2014-06-12	7.4	3.1	10.9	3.03	169
2014-06-13	8.9	3.1	12.0	2.76	328
2014-06-14	8.6	3.5	13.2	1.66	146
2014-06-15	11.0	5.3	15.1	3.64	350
2014-06-16	9.7	7.4	12.7	4.08	84
2014-06-17	9.4	4.4	14.8	4.40	119
2014-06-18	10.3	4.6	16.0	4.62	143
2014-06-19	14.1	6.1	22.9	5.62	180
2014-06-20	16.6	8.4	24.4	3.96	198
2014-06-21	18.9	12.6	26.8	4.21	214
2014-06-22	9.2	5.3	13.7	8.27	343
2014-06-23	7.1	2.4	11.5	7.28	339
2014-06-24	9.6	3.2	16.2	5.72	315
2014-06-25	14.3	6.0	22.4	3.64	237
2014-06-26	16.7	8.4	23.0	3.38	97
2014-06-27	16.0	11.2	20.6	4.31	322
2014-06-28	11.3	5.5	15.8	3.31	51
2014-06-29	9.4	6.2	14.6	5.87	101
2014-06-30	9.3	6.3	12.1	4.86	96
2014-07-01	11.6	8.0	15.5	5.89	351
2014-07-02	12.0	6.6	17.4	7.15	346
2014-07-03	12.0	6.7	16.9	5.54	336
2014-07-04	13.0	7.5	17.5	3.37	5
2014-07-05	13.4	8.4	17.6	4.61	356
2014-07-06	14.2	7.5	20.6	3.16	304
2014-07-07	15.2	11.1	20.1	3.96	266
2014-07-08	9.7	6.1	13.7	8.24	332
2014-07-09	10.4	5.3	15.4	5.60	323
2014-07-10	12.3	6.7	16.6	4.15	325
2014-07-11	14.4	7.6	18.8	2.14	343
2014-07-12	12.9	8.9	15.7	4.06	98

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-07-13	11.4	8.8	14.8	7.11	40
2014-07-14	15.7	10.7	20.5	3.37	68
2014-07-15	16.6	11.1	21.6	4.76	210
2014-07-16	18.2	13.1	23.7	2.83	241
2014-07-17	15.8	13.5	19.1	4.88	78
2014-07-18	11.4	9.4	14.0	8.75	268
2014-07-19	6.9	5.3	9.4	9.40	253
2014-07-20	7.3	5.4	10.2	8.33	280
2014-07-21	8.6	5.9	11.9	2.36	286
2014-07-22	10.4	8.6	12.8	3.93	339
2014-07-23	12.7	6.3	18.7	3.98	270
2014-07-24	14.1	8.7	19.6	2.61	322
2014-07-25	17.0	11.4	21.6	1.75	115
2014-07-26	17.0	13.3	20.4	4.48	134
2014-07-27	18.5	11.8	26.0	3.96	214
2014-07-28	16.5	11.9	20.5	2.78	360
2014-07-29	17.5	13.5	21.8	3.25	154
2014-07-30	18.5	14.6	24.8	4.27	158
2014-07-31	15.7	11.2	21.3	3.28	40
2014-08-01	19.5	13.9	25.7	5.62	144
2014-08-02	10.1	7.9	13.9	7.14	318
2014-08-03	13.0	8.0	17.0	6.13	195
2014-08-04	14.9	11.7	20.7	4.50	215
2014-08-05	11.9	9.6	13.6	3.69	312
2014-08-06	11.9	8.2	15.6	2.85	294
2014-08-07	10.4	7.8	12.9	6.40	352
2014-08-08	8.1	6.5	11.0	4.12	26
2014-08-09	7.3	5.2	9.8	7.49	317
2014-08-10	10.6	7.0	14.3	4.31	255
2014-08-11	12.2	7.8	17.1	2.70	235
2014-08-12	9.7	7.5	11.7	4.77	321
2014-08-13	9.8	6.7	13.4	4.80	292
2014-08-14	11.4	8.0	14.8	3.53	91
2014-08-15	10.2	4.2	12.9	6.64	26
2014-08-16	6.1	4.2	7.7	5.93	325
2014-08-17	7.4	4.5	11.0	2.47	63
2014-08-18	7.5	4.9	8.9	10.07	116
2014-08-19	3.8	2.0	5.5	14.73	321
2014-08-20	6.2	3.4	9.6	5.24	285

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-08-21	7.0	6.3	8.2	4.23	128
2014-08-22	6.9	5.2	9.0	5.51	16
2014-08-23	6.2	4.3	8.2	4.90	343
2014-08-24	9.3	3.9	14.3	3.27	220
2014-08-25	10.7	5.1	15.5	6.29	211
2014-08-26	13.0	9.2	17.6	4.31	221
2014-08-27	12.6	10.0	16.2	5.41	178
2014-08-28	10.5	8.9	11.5	3.87	123
2014-08-29	7.1	5.9	9.0	6.52	324
2014-08-30	6.8	5.2	8.8	8.81	322
2014-08-31	8.0	5.9	11.1	6.38	321
2014-09-01	7.4	3.7	11.7	2.23	33
2014-09-02	9.3	5.1	13.0	2.37	72
2014-09-03	9.2	5.1	13.0	2.15	37
2014-09-04	10.1	5.3	14.4	1.13	337
2014-09-05	9.9	5.2	14.0	3.06	167
2014-09-06	4.8	2.3	8.6	7.26	305
2014-09-07	4.0	1.4	6.8	3.84	263
2014-09-08	2.8	0.3	4.5	3.68	97
2014-09-09	2.5	0.9	4.4	8.69	349
2014-09-10	2.5	0.8	4.5	9.50	338
2014-09-11	3.8	0.9	7.2	8.59	296
2014-09-12	-0.2	-1.7	1.2	3.98	350
2014-09-13	-0.8	-3.1	1.4	4.70	341
2014-09-14	1.8	-0.9	4.2	8.74	280
2014-09-15	-1.7	-3.0	-0.8	6.80	326
2014-09-16	-2.1	-3.9	-1.2	8.69	324
2014-09-17	-3.0	-4.4	-1.6	7.27	328
2014-09-18	-2.1	-3.6	-0.2	4.96	271
2014-09-19	-0.1	-1.8	1.3	7.99	114
2014-09-20	1.3	-0.1	3.7	4.64	21
2014-09-21	0.6	-0.8	2.1	4.71	268
2014-09-22	-3.6	-5.2	0.5	5.87	331
2014-09-23	-3.0	-5.9	0.2	3.59	198
2014-09-24	2.0	-1.0	5.4	8.77	167
2014-09-25	-0.6	-3.9	2.7	11.83	303
2014-09-26	-3.2	-4.5	-1.3	3.46	171
2014-09-27	0.5	-2.2	3.4	6.68	271
2014-09-28	-0.6	-2.8	1.8	5.96	289

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-09-29	-4.5	-6.0	-2.5	5.05	294
2014-09-30	-6.9	-9.8	-4.4	7.38	49
2014-10-01	-7.7	-9.9	-6.0	4.85	73
2014-10-02	-7.3	-9.8	-5.1	6.09	66
2014-10-03	-6.1	-6.7	-5.5	6.24	30
2014-10-04	-6.4	-8.6	-4.9	5.51	8
2014-10-05	-5.9	-6.5	-5.0	4.29	26
2014-10-06	-4.4	-6.7	-1.0	8.57	24
2014-10-07	0.3	-1.0	1.3	5.05	59
2014-10-08	0.7	-0.2	2.2	3.31	65
2014-10-09	0.4	-1.3	1.2	2.90	29
2014-10-10	-3.8	-6.9	-1.3	3.69	15
2014-10-11	-2.8	-5.9	-1.6	5.34	326
2014-10-12	-5.6	-7.8	-3.4	5.77	360
2014-10-13	-5.4	-8.0	-3.8	2.52	29
2014-10-14	-4.3	-5.4	-3.1	3.98	294
2014-10-15	-4.6	-5.7	-3.6	4.29	306
2014-10-16	-5.6	-7.7	-3.7	4.33	347
2014-10-17	-5.0	-6.7	-3.9	5.70	324
2014-10-18	-6.9	-8.0	-5.5	3.03	23
2014-10-19	-5.8	-8.5	-2.3	8.61	139
2014-10-20	-3.8	-7.6	-2.0	4.07	285
2014-10-21	-9.3	-12.0	-6.2	3.33	91
2014-10-22	-0.9	-6.5	0.5	5.04	174
2014-10-23	-7.6	-13.6	-0.6	6.25	359
2014-10-24	-13.2	-16.6	-9.1	6.90	76
2014-10-25	-7.7	-9.4	-5.9	10.15	103
2014-10-26	-7.4	-8.4	-6.5	7.18	87
2014-10-27	-7.9	-10.5	-6.6	3.72	347
2014-10-28	-9.9	-12.4	-8.6	6.15	324
2014-10-29	-11.8	-13.6	-9.5	2.18	307
2014-10-30	-14.7	-21.0	-12.5	5.18	58
2014-10-31	-16.9	-22.1	-12.9	2.98	224
2014-11-01	-16.8	-19.5	-13.7	1.94	109
2014-11-02	-5.2	-15.5	-2.5	8.51	133
2014-11-03	-12.9	-20.1	-2.0	3.90	304
2014-11-04	-12.3	-18.0	-7.2	5.05	153
2014-11-05	-17.5	-21.7	-11.9	6.54	335
2014-11-06	-18.1	-20.4	-15.2	5.93	317

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-11-07	-19.8	-24.1	-15.2	4.90	171
2014-11-08	-9.2	-15.3	-4.3	7.03	88
2014-11-09	-9.7	-14.5	-5.2	10.44	15
2014-11-10	-14.7	-16.2	-12.1	8.10	11
2014-11-11	-17.9	-22.0	-12.8	8.05	352
2014-11-12	-20.8	-22.0	-19.7	5.34	301
2014-11-13	-20.0	-22.3	-16.7	4.11	260
2014-11-14	-23.9	-25.9	-16.7	7.89	333
2014-11-15	-25.9	-28.7	-24.2	5.93	319
2014-11-16	-24.1	-28.5	-18.8	4.51	337
2014-11-17	-20.1	-23.2	-16.1	7.93	330
2014-11-18	-16.6	-21.1	-12.7	2.46	231
2014-11-19	-19.1	-24.1	-14.5	8.34	341
2014-11-20	-24.9	-26.6	-23.4	8.10	320
2014-11-21	-26.9	-29.9	-23.2	5.57	305
2014-11-22	-30.1	-31.8	-28.9	3.08	287
2014-11-23	-31.6	-33.2	-30.4	4.39	295
2014-11-24	-30.9	-32.6	-29.5	2.91	288
2014-11-25	-31.9	-33.7	-28.9	4.66	309
2014-11-26	-28.6	-31.2	-26.5	6.99	306
2014-11-27	-25.8	-31.3	-22.7	7.15	270
2014-11-28	-30.9	-33.4	-27.1	5.62	292
2014-11-29	-27.8	-32.4	-24.9	3.94	272
2014-11-30	-30.6	-32.3	-28.7	2.47	105
2014-12-01	-33.8	-36.1	-31.4	2.58	302
2014-12-02	-31.6	-32.8	-30.6	2.14	131
2014-12-03	-35.4	-37.3	-31.8	3.62	340
2014-12-04	-35.8	-37.6	-33.9	3.68	286
2014-12-05	-32.0	-34.8	-29.1	3.69	117
2014-12-06	-35.1	-36.9	-34.0	5.72	330
2014-12-07	-29.3	-34.7	-24.5	8.12	287
2014-12-08	-25.7	-28.4	-23.8	8.78	301
2014-12-09	-29.5	-31.1	-27.8	2.51	249
2014-12-10	-20.2	-29.3	-14.2	9.23	143
2014-12-11	-20.0	-29.4	-11.8	8.48	325
2014-12-12	-30.3	-32.8	-23.6	5.79	344
2014-12-13	-19.1	-23.6	-17.1	6.13	76
2014-12-14	-19.8	-25.1	-16.6	4.37	354
2014-12-15	-21.9	-26.9	-21.1	3.94	337

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Wind Speed (m/s)	Wind Direction (deg.)
2014-12-16	-27.8	-32.1	-21.0	2.83	142
2014-12-17	-16.4	-21.1	-13.6	5.70	250
2014-12-18	-16.7	-19.6	-13.8	1.62	91
2014-12-19	-20.6	-23.6	-14.0	2.05	69
2014-12-20	-18.8	-22.5	-17.5	2.86	105
2014-12-21	-15.0	-17.5	-14.0	2.27	159
2014-12-22	-17.5	-20.1	-15.0	4.24	24
2014-12-23	-23.0	-30.5	-17.7	3.84	354
2014-12-24	-27.5	-31.4	-23.2	3.20	86
2014-12-25	-20.8	-23.2	-18.5	9.11	94
2014-12-26	-22.3	-28.8	-18.9	6.19	54
2014-12-27	-29.0	-33.9	-26.0	5.05	351
2014-12-28	-33.5	-35.1	-31.1	4.53	308
2014-12-29	-31.1	-34.7	-25.5	7.74	314
2014-12-30	-29.5	-31.2	-27.1	11.38	308
2014-12-31	-22.7	-27.7	-19.5	4.40	282

Appendix B

2014 Laboratory Certificates

Your P.O. #: 90762
 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 J0Y 1C0

Report Date: 2014/02/12
 Report #: R1515247
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B408602

Received: 2014/02/04, 09:21

Sample Matrix: Filter
 # Samples Received: 26

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	26	N/A	2014/02/11	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

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Maxxam Job #: B408602
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		IP3359	IP3360	IP3361	IP3362	IP3363		
Sampling Date		2014/01/05	2014/01/11	2014/01/17	2014/01/23	2014/01/05		
	Units	PM2.5 RP2883	PM2.5 RP15512	PM2.5 RP10072	PM2.5 RP10332	PM2.5 RP903	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	13	14	14	14	51	3	7378992
RDL = Reportable Detection Limit								

Maxxam ID		IP3364	IP3365	IP3366	IP3380	IP3381		
Sampling Date		2014/01/11	2014/01/17	2014/01/23	2014/01/05	2014/01/11		
	Units	PM2.5 RP 71616	PM2.5 RP890	PM2.5 RP17839	PM10 RP16554	PM10 RP90547	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	16	80	28	68	51	3	7378992
RDL = Reportable Detection Limit								

Maxxam ID		IP3382	IP3383	IP3384	IP3385	IP3386	IP3403		
Sampling Date		2014/01/17	2014/01/23	2014/01/05	2014/01/11	2014/01/17	2014/01/23		
	Units	PM10 RP28672	PM10 RP10306	PM10 RP891	PM10 RP21384	PM10 RP4240	PM10 RP15503	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	107	35	10	10	32	20	3	7378992
RDL = Reportable Detection Limit									

Maxxam ID		IP3404	IP3405	IP3406	IP3407	IP3408	IP3409		
Sampling Date		2014/01/05	2014/01/11	2014/01/17	2014/01/23	2014/01/05	2014/01/11		
	Units	TSP RP10074	TSP RP14336	TSP RP87482	TSP RP10069	TSP RP89984	TSP RP37984	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	80	93	116	89	180	59	3	7378992
RDL = Reportable Detection Limit									

Maxxam ID		IP3410	IP3426	IP3510	IP3528		
Sampling Date		2014/01/17	2014/01/23				
	Units	TSP RP14087	TSP RP92738	TRIP BLANK RP22214	BLANK	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	91	45	<3	<3	3	7378992
RDL = Reportable Detection Limit							

Maxxam Job #: B408602
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B408602
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC				Date				
Batch	Init	QC Type	Parameter	Analyzed	Value	Recovery	Units	QC Limits
7378992	SS6	Calibration Check	Particulate Matter	2014/02/11		100	%	N/A
Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.								

Maxxam Job #: B408602
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Darren Funnell", is written over a horizontal line.

Darren Funnell, Analyst I

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Your P.O. #: 90762
 Your Project #: 2014/01/02 - 2014/01/25
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/02/07
 Report #: R1512442
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B408580

Received: 2014/02/04, 09:03

Sample Matrix: Air
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/02/07	2014/02/07	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/02/07	2014/02/07	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/02/06	2014/02/06	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

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Maxxam Job #: B408580
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		IP3235	IP3236	IP3237	IP3238		
Sampling Date		2014/01/02	2014/01/02	2014/01/02	2014/01/02		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	23	23	23	23	1	7374416
Dustfall Determination							
Total Dustfall	mg	10	36	30	2	1	7375148
Total Dustfall (30 day)	mg/cm2/30day	0.158	0.575	0.473	0.026	0.001	7375149
Total Fixed Dustfall	mg	10	36	30	2	1	7375148
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.158	0.575	0.473	0.026	0.001	7375149
RDL = Reportable Detection Limit							

Maxxam Job #: B408580
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B408580
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7375148	OZ	Calibration Check	Total Dustfall	2014/02/07		101	%	N/A
7375148	OZ	Method Blank	Total Dustfall	2014/02/07	<1		mg	
			Total Fixed Dustfall	2014/02/07	<1		mg	
7375148	OZ	RPD [IP3235-01]	Total Dustfall	2014/02/07	0		%	N/A
			Total Fixed Dustfall	2014/02/07	0		%	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.

Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.

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

Maxxam Job #: B408580
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Darren Funnell", is written over a horizontal line.

Darren Funnell, Analyst I

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Your P.O. #: 90762
 Your Project #: 2014/01/02 - 2014/01/25
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/02/12
 Report #: R1515335
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B408570

Received: 2014/02/04, 08:54

Sample Matrix: Air
 # Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis (1)	2	2014/02/05	2014/02/12	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/02/05	2014/02/05	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 #: B408570
Report Date: 2014/02/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		IP3193	IP3194		IP3195	
Sampling Date		2014/01/02 11:46	2014/01/02 10:20			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.7	1.8	0.1		7372084
NO2	ppm				0.04	7372085
RDL = Reportable Detection Limit						

Maxxam Job #: B408570
Report Date: 2014/02/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B408570
Report Date: 2014/02/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT


QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7372084	DF4	Calibration Check	Calculated NO2	2014/02/05		97	%	90 - 110
7372084	DF4	Spiked Blank	Calculated NO2	2014/02/05		101	%	90 - 110
7372084	DF4	Method Blank	Calculated NO2	2014/02/05	<0.1		ppb	
<p>Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.</p> <p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B408570
Report Date: 2014/02/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/02 - 2014/01/25
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Linda Lin", is written over a solid black horizontal line.

Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 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 J0Y 1C0

Report Date: 2014/03/20
 Report #: R1537309
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B419036

Received: 2014/03/11, 11:00

Sample Matrix: Filter
 # Samples Received: 38

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	38	N/A	2014/03/20	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, Customer Service

Email: LManchak@maxxam.ca

Phone# (780) 378-8500

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Maxxam Job #: B419036
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		IZ2657	IZ2658	IZ2659	IZ2660	IZ2661		
Sampling Date		2014/01/29	2014/02/04	2014/02/10	2014/02/22	2014/02/28		
	Units	PM2.5 RP4242	PM2.5 RP93442	PM2.5 RP15505	PM2.5 RP27514	PM2.5 RP91293	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	14	13	7	5	4	3	7421789
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RDL = Reportable Detection Limit

Maxxam ID		IZ2662	IZ2663	IZ2664	IZ2665	IZ2666		
Sampling Date		2014/02/04	2014/02/10	2014/02/16	2014/02/22	2014/02/28		
	Units	PM2.5 RP84364	PM2.5 RP926	PM2.5 RP15532	PM2.5 RP13795	PM2.5 RP46673	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	6	16	27	20	29	3	7421789
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RDL = Reportable Detection Limit

Maxxam ID		IZ2667	IZ2668	IZ2669	IZ2670	IZ2671		
Sampling Date		2014/01/29	2014/02/04	2014/02/10	2014/02/16	2014/02/22		
	Units	PM10 RP15165	PM10 RP89952	PM10 RP84373	PM10 RP96713	PM10 RP15488	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	65	25	74	49	39	3	7421789
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RDL = Reportable Detection Limit

Maxxam ID		IZ2672	IZ2673	IZ2674	IZ2675	IZ2676		
Sampling Date		2014/02/28	2014/01/29	2014/02/04	2014/02/10	2014/02/16		
	Units	PM10 RP15515	PM10 RP2876	PM10 RP22220	PM10 RP4238	PM10 RP83499	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	95	13	8	7	8	3	7421789
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RDL = Reportable Detection Limit

Maxxam ID		IZ2677	IZ2678	IZ2679	IZ2680	IZ2702	IZ2703		
Sampling Date		2014/02/22	2014/02/28	2014/01/29	2014/02/04	2014/02/10	2014/02/16		
	Units	PM10 RP89985	PM10 RP16077	TSP RP930	TSP RP868	TSP RP15241	TSP RP4236	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	7	11	93	42	68	65	3	7421789
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RDL = Reportable Detection Limit

Maxxam Job #: B419036
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		IZ2704	IZ2705	IZ2706	IZ2707		IZ2708	IZ2709		
Sampling Date		2014/02/22	2014/02/28	2014/01/29	2014/02/04		2014/02/10	2014/02/16		
	Units	TSP RP15511	TSP RP38948	TSP RP10073	TSP RP862	QC Batch	TSP RP27276	TSP RP90584	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	45	76	43	23	7421789	51	58	3	7421790
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RDL = Reportable Detection Limit

Maxxam ID		IZ2710	IZ2711	IZ2723	IZ2724	IZ2777	IZ2804		
Sampling Date		2014/02/22	2014/02/28			2014/02/16	2014/01/29		
	Units	TSP RP29741	TSP RP9928	TRAVEL BLANK RP27518	LAB BLANK	PM2.5 RP89943	PM2.5 RP84123	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	36	86	<3	<3	7	17	3	7421790
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RDL = Reportable Detection Limit

Maxxam Job #: B419036
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

PM10 RP15165 (IZ2667) received to the Lab with small perforation on filter. SS

Results relate only to the items tested.

Maxxam Job #: B419036
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT


QA/QC				Date				
Batch	Init	QC Type	Parameter	Analyzed	Value	Recovery	Units	QC Limits
7421790	SS6	Calibration Check	Particulate Matter	2014/03/20		100	%	N/A
Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.								

Maxxam Job #: B419036
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Linda Lin", is written over a solid black horizontal line.

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. #: 90762
Your Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/03/13
Report #: R1532775
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B419022

Received: 2014/03/11, 10:48

Sample Matrix: Air
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Determination of Dustfall-mg/cm2/30 days	4	2014/03/13	2014/03/13	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/03/13	2014/03/13	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/03/13	2014/03/13	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

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Maxxam Job #: B419022
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		IZ2621	IZ2622	IZ2623	IZ2624		
Sampling Date		2014/01/25	2014/01/25	2014/01/25	2014/01/25		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	36	36	36	36	1	7414206
Dustfall Determination							
Total Dustfall	mg	34	27	49	5	1	7414203
Total Dustfall (30 day)	mg/cm2/30day	0.343	0.279	0.502	0.055	0.001	7414204
Total Fixed Dustfall	mg	33	26	49	5	1	7414203
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.337	0.264	0.496	0.049	0.001	7414204
RDL = Reportable Detection Limit							

Maxxam Job #: B419022
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B419022
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7414203	OZ	Calibration Check	Total Dustfall	2014/03/13		101	%	N/A
7414203	OZ	Method Blank	Total Dustfall	2014/03/13	<1		mg	
			Total Fixed Dustfall	2014/03/13	<1		mg	
7414203	OZ	RPD [IZ2621-01]	Total Dustfall	2014/03/13	1.8		%	N/A
			Total Fixed Dustfall	2014/03/13	0		%	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.

Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.


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

Maxxam Job #: B419022
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Darren Funnell", is written over a horizontal line.

Darren Funnell, Analyst I

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Your P.O. #: 90762
 Your Project #: 2014/01/25 - 2014/03/02
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/03/20
 Report #: R1537286
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B419017
Received: 2014/03/11, 10:43

Sample Matrix: Air
 # Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/03/19	2014/03/20	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/03/19	2014/03/19	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 #: B419017
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		IZ2611	IZ2612		IZ2613	
Sampling Date		2014/01/25	2014/01/25			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.2	1.1	0.1		7421001
NO2	ppm				0.06	7420997
RDL = Reportable Detection Limit						

Maxxam Job #: B419017
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B419017

Report Date:

Agnico Eagle Mines Ltd.

Client Project #: 2014/01/25 - 2014/03/02

Site Location: BAKER LAKE, NU

Your P.O. #: 90762

QUALITY ASSURANCE REPORT


QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7421001	DF4	Calibration Check	Calculated NO2	2014/03/19		98	%	90 - 110
7421001	DF4	Spiked Blank	Calculated NO2	2014/03/19		99	%	90 - 110
7421001	DF4	Method Blank	Calculated NO2	2014/03/19	<0.1		ppb	
<p>Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.</p> <p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B419017
Report Date:

Agnico Eagle Mines Ltd.
Client Project #: 2014/01/25 - 2014/03/02
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 82140
 Your Project #: 2013/11/24 - 2014/01/02
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/01/20
 Report #: R1503141
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B402315

Received: 2014/01/13, 09:08

Sample Matrix: Air
 # Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis (1)	2	2014/01/19	2014/01/20	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/01/19	2014/01/19	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 #: B402315
Report Date: 2014/01/20

Agnico Eagle Mines Ltd.
Client Project #: 2013/11/24 - 2014/01/02
Site Location: BAKER LAKE, NU
Your P.O. #: 82140

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		IK7614	IK7615		IK7616	
Sampling Date		2013/11/24 15:49	2013/11/24 13:34			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.4	1.6	0.1		7354053
NO2	ppm				0.05	7354051
RDL = Reportable Detection Limit						

Maxxam Job #: B402315
Report Date: 2014/01/20

Agnico Eagle Mines Ltd.
Client Project #: 2013/11/24 - 2014/01/02
Site Location: BAKER LAKE, NU
Your P.O. #: 82140

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B402315
Report Date: 2014/01/20

Agnico Eagle Mines Ltd.
Client Project #: 2013/11/24 - 2014/01/02
Site Location: BAKER LAKE, NU
Your P.O. #: 82140

QUALITY ASSURANCE REPORT


QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7354053	OZ	Calibration Check	Calculated NO2	2014/01/19		99	%	90 - 110
7354053	OZ	Spiked Blank	Calculated NO2	2014/01/19		97	%	90 - 110
7354053	OZ	Method Blank	Calculated NO2	2014/01/19	<0.1		ppb	
<p>Calibration Check: A calibration standard analyzed at different times to evaluate on-going calibration accuracy.</p> <p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B402315
Report Date: 2014/01/20

Agnico Eagle Mines Ltd.
Client Project #: 2013/11/24 - 2014/01/02
Site Location: BAKER LAKE, NU
Your P.O. #: 82140

VALIDATION SIGNATURE PAGE

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A handwritten signature in black ink, appearing to read "Linda Lin", is written over a solid black horizontal line.

Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 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 J0Y 1C0

Report Date: 2014/04/21
 Report #: R1554888
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B427196

Received: 2014/04/07, 14:20

Sample Matrix: Filter
 # Samples Received: 26

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	26	N/A	2014/04/15	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

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Maxxam Job #: B427196
Report Date: 2014/04/21

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		JG8913	JG8914	JG8915	JG8916	JG8917		
Sampling Date		2014/03/06	2014/03/12	2014/03/18	2014/03/24	2014/03/06		
	Units	PM2.5 RP10060	PM2.5 RP22215	PM2.5 RP13783	PM2.5 RP9906	PM2.5 RP10067	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	6	7	18	18	14	3	7453135
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RDL = Reportable Detection Limit

Maxxam ID		JG8918	JG8919	JG8920	JG8923	JG8924		
Sampling Date		2014/03/12	2014/03/18	2014/03/24	2014/03/06	2014/03/12		
	Units	PM2.5 RP897	PM2.5 RP15486	PM2.5 RP84087	PM10 RP92785	PM10 RP15540	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	52	36	52	55	91	3	7453135
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RDL = Reportable Detection Limit

Maxxam ID		JG8925	JG8926	JG8927	JG8928	JG8929		
Sampling Date		2014/03/18	2014/03/24	2014/03/06	2014/03/12	2014/03/18		
	Units	PM10 RP71615	PM10 RP17822	PM10 RP908	PM10 RP14085	PM10 RP15531	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	71	120	21	24	17	3	7453135
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RDL = Reportable Detection Limit

Maxxam ID		JG8930	JG8935	JG8936	JG8937	JG8938	JG8939		
Sampling Date		2014/03/24	2014/03/06	2014/03/12	2014/03/18	2014/03/24	2014/01/29		
	Units	PM10 RP27513	TSP RP10071	TSP RP17830	TSP RP27277	TSP RP26376	TSP RP15071	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	25	71	168	303	536	78	3	7453135
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RDL = Reportable Detection Limit

Maxxam ID		JG8940	JG8941	JG8942	JG8947	JG8948		
Sampling Date		2014/02/04	2014/02/10	2014/02/16				
	Units	TSP RP19960	TSP RP40117	TSP RP54412	TRAVEL BLANK RP22621	LAB BLANK	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	764	580	1320	13	10	3	7453135
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RDL = Reportable Detection Limit

Maxxam Job #: B427196
Report Date: 2014/04/21

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

TSP RP40117 (JG8941) received to the Lab with two small rips on filter. SS
TSP RP26376 (JG8938) received to the Lab with visible particulate on filter. SS

Results relate only to the items tested.

Maxxam Job #: B427196
Report Date: 2014/04/21

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 Your Project #: 2014/03/02 - 2014/03/30
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/04/16
 Report #: R1553161
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B427195

Received: 2014/04/07, 14:18

Sample Matrix: Air
 # Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/04/15	2014/04/16	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/04/15	2014/04/15	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 #: B427195
Report Date: 2014/04/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		JG8910	JG8911		JG8912	
Sampling Date		2014/03/02 16:41	2014/03/02 15:47			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.6	1.9	0.1		7452926
NO2	ppm				0.05	7452928
RDL = Reportable Detection Limit						

Maxxam Job #: B427195
Report Date: 2014/04/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B427195
Report Date: 2014/04/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT


QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7452926	DF4	Spiked Blank	Calculated NO2	2014/04/15		100	%	90 - 110
7452926	DF4	Method Blank	Calculated NO2	2014/04/15	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B427195
Report Date: 2014/04/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Linda Lin", is written over a solid black horizontal line.

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. #: 90762
 Your Project #: 2014/03/02 - 2014/03/30
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/04/21
 Report #: R1554890
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B427192

Received: 2014/04/07, 14:16

Sample Matrix: Air
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/04/16	2014/04/16	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/04/16	2014/04/16	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/04/09	2014/04/09	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

=====

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Maxxam Job #: B427192
Report Date: 2014/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		JG8887	JG8888	JG8889	JG8890		
Sampling Date		2014/03/02	2014/03/02	2014/03/02	2014/03/02		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	28	28	28	28	1	7446540
Dustfall Determination							
Total Dustfall	mg	28	26	61	2	1	7455231
Total Dustfall (30 day)	mg/cm2/30day	0.370	0.338	0.795	0.024	0.001	7455232
Total Fixed Dustfall	mg	28	25	59	2	1	7455231
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.362	0.331	0.771	0.024	0.001	7455232
RDL = Reportable Detection Limit							

Maxxam Job #: B427192
Report Date: 2014/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B427192
Report Date: 2014/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7455231	OZ	Method Blank	Total Dustfall	2014/04/16	<1		mg	
			Total Fixed Dustfall	2014/04/16	<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								

Maxxam Job #: B427192
Report Date: 2014/04/21

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/02 - 2014/03/30
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 Your Project #: 2014/03/30 - 2014/04/27
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/05/07
 Report #: R1563865
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B434626

Received: 2014/05/02, 09:06

Sample Matrix: Air
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/05/07	2014/05/07	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/05/07	2014/05/07	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/05/07	2014/05/07	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

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Maxxam Job #: B434626
Report Date: 2014/05/07

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		JN2074	JN2075	JN2076	JN2077		
Sampling Date		2014/03/30	2014/03/30	2014/03/30	2014/03/30		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	28	28	28	28	1	7477495
Dustfall Determination							
Total Dustfall	mg	96	25	44	10	1	7477492
Total Dustfall (30 day)	mg/cm2/30day	1.259	0.331	0.582	0.126	0.001	7477493
Total Fixed Dustfall	mg	92	23	42	7	1	7477492
Total Fixed Dustfall (30 day)	mg/cm2/30day	1.204	0.299	0.551	0.094	0.001	7477493
RDL = Reportable Detection Limit							

Maxxam Job #: B434626
Report Date: 2014/05/07

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B434626
Report Date: 2014/05/07

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7477492	OZ	Method Blank	Total Dustfall	2014/05/07	<1		mg	
			Total Fixed Dustfall	2014/05/07	<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								

Maxxam Job #: B434626
Report Date: 2014/05/07

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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A handwritten signature in black ink, appearing to read "Darren Funnell", is written over a horizontal line.

Darren Funnell, Analyst I

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Your P.O. #: 90762
 Your Project #: 2014/03/30 - 2014/04/27
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/05/12
 Report #: R1565968
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B434624
Received: 2014/05/02, 09:03

Sample Matrix: Air
 # Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/05/08	2014/05/12	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/05/08	2014/05/08	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 #: B434624
Report Date: 2014/05/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		JN2070	JN2071		JN2072	
Sampling Date		2014/03/30 11:34	2014/03/30 10:30			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	<0.1	0.2	0.1		7478577
NO2	ppm				0.10	7478683
RDL = Reportable Detection Limit						

Maxxam Job #: B434624
Report Date: 2014/05/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

No blanks returned. Default lab blank used. - DF

Results relate only to the items tested.

Maxxam Job #: B434624
Report Date: 2014/05/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7478577	DF4	Spiked Blank	Calculated NO2	2014/05/08		100	%	90 - 110
7478577	DF4	Method Blank	Calculated NO2	2014/05/08	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B434624
Report Date: 2014/05/12

Agnico Eagle Mines Ltd.
Client Project #: 2014/03/30 - 2014/04/27
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 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 J0Y 1C0

Report Date: 2014/05/09
 Report #: R1565217
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B434619

Received: 2014/05/02, 08:48

Sample Matrix: Filter
 # Samples Received: 25

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	25	N/A	2014/05/08	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

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Maxxam Job #: B434619
Report Date: 2014/05/09

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		JN2008	JN2009	JN2010	JN2011	JN2012		
Sampling Date		2014/03/30	2014/04/05	2014/04/11	2014/04/17	2014/03/30		
	Units	PM2.5 RP9918	PM2.5 RP28681	PM2.5 RP14339	PM2.5 RP22217	PM2.5 RP12397	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	17	<3	15	16	31	3	7479352
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RDL = Reportable Detection Limit

Maxxam ID		JN2013	JN2014	JN2015	JN2016	JN2017		
Sampling Date		2014/04/05	2014/04/11	2014/04/17	2014/03/30	2014/04/05		
	Units	PM2.5 RP22198	PM2.5 RP903	PM2.5 RP87482	PM10 RP25442	PM10 RP17876	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	47	30	51	50	124	3	7479352
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RDL = Reportable Detection Limit

Maxxam ID		JN2018	JN2019	JN2020	JN2021	JN2022		
Sampling Date		2014/04/11	2014/04/17	2014/03/30	2014/04/05	2014/04/11		
	Units	PM10 RP27431	PM10 RP15480	PM10 RP17813	PM10 RP22893	PM10 RP27282	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	134	116	19	29	18	3	7479352
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RDL = Reportable Detection Limit

Maxxam ID		JN2023	JN2024	JN2025	JN2026	JN2027	JN2028		
Sampling Date		2014/04/17	2014/03/30	2014/04/11	2014/04/17	2014/03/30	2014/04/05		
	Units	PM10 RP13064	TSP RP86155	TSP RP909	TSP RP92799	TSP RP17774	TSP RP841	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	26	1980	270	122	1630	2420	3	7479352
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RDL = Reportable Detection Limit

Maxxam ID		JN2029	JN2030	JN2032	JN2033		
Sampling Date		2014/04/11	2014/04/17				
	Units	TSP RP876	TSP RP10064	TRAVEL BLANK RP27517	LAB BLANK	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	1640	5500	4	<3	3	7479352
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RDL = Reportable Detection Limit

Maxxam Job #: B434619
Report Date: 2014/05/09

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

PM2.5 RP28681 (JN2009) received to the Lab with small perforation on filter. SS
TSP RP841 (JN2028) received to the Lab with small perforation on filter and with visible particulate (grey powder) on filter. SS
TSP RP010064 (JN2030) and TSP RP876 (JN2029) received to the Lab with visible particulate on filter. SS

Results relate only to the items tested.

Maxxam Job #: B434619
Report Date: 2014/05/09

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Darren Funnell, Analyst I

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Your P.O. #: 90762
 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 J0Y 1C0

Report Date: 2014/06/23
 Report #: R1590268
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B450096

Received: 2014/06/17, 09:53

Sample Matrix: Filter
 # Samples Received: 43

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	42	N/A	2014/06/21	PTC SOP-00151	EPA 2.12 Monitoring
Mass Determination(ug/filter)	1	N/A	2014/06/23	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

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Maxxam Job #: B450096
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		JW1325	JW1326	JW1327	JW1328	JW1329		
Sampling Date		2014/04/24	2014/04/30	2014/05/06	2014/05/12	2014/05/18		
	Units	PM2.5 RP10069	PM2.5 RP9903	PM2.5 RP22214	PM2.5 RP15070	PM2.5 RP4250	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	8	9	4	8	9	3	7535260
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RDL = Reportable Detection Limit

Maxxam ID		JW1330	JW1331	JW1332	JW1333	JW1334		
Sampling Date		2014/05/24	2014/05/30	2014/04/24	2014/04/30	2014/05/06		
	Units	PM2.5 RP10079	PM2.5 RP917	PM2.5 RP76187	PM2.5 RP878	PM2.5 RP13270	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	10	25	38	255	64	3	7535260
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RDL = Reportable Detection Limit

Maxxam ID		JW1335	JW1336	JW1337	JW1338	JW1339		
Sampling Date		2014/05/12	2014/05/18	2014/05/24	2014/04/24	2014/04/30		
	Units	PM2.5 RP22210	PM2.5 RP15545	PM2.5 RP20564	PM10 RP4245	PM10 RP28690	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	75	75	84	72	80	3	7535260
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RDL = Reportable Detection Limit

Maxxam ID		JW1340	JW1341	JW1342	JW1343	JW1344		
Sampling Date		2014/05/06	2014/05/12	2014/05/18	2014/05/24	2014/05/30		
	Units	PM10 RP27583	PM10 RP9933	PM10 RP9945	PM10 RP10344	PM10 RP91098	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	115	193	287	222	962	3	7535260
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RDL = Reportable Detection Limit

Maxxam ID		JW1345	JW1346	JW1347	JW1424	JW1425		
Sampling Date		2014/04/24	2014/04/30	2014/05/06	2014/05/12	2014/05/18		
	Units	PM10 RP22903	PM10 RP99742	PM10 RP93460	PM10 RP923	PM10 RP10348	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	12	40	1040	194	438	3	7535260
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RDL = Reportable Detection Limit

Maxxam Job #: B450096
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		JW1426	JW1427	JW1428	JW1429	JW1430		
Sampling Date		2014/05/24	2014/05/30	2014/04/24	2014/04/30	2014/05/06		
	Units	PM10 RP15541	PM10 RP4246	TSP RP925	TSP RP91117	TSP RP27516	RDL	QC Batch
PM2.5/10								
Particulate Matter	ug/filter	76	142	278	377	215	3	7535260
RDL = Reportable Detection Limit								

Maxxam ID		JW1435	JW1436	JW1437	JW1438	JW1439	JW1440		
Sampling Date		2014/05/12	2014/05/18	2014/05/24	2014/05/30	2014/04/24	2014/04/30		
	Units	TSP RP22896	TSP RP10066	TSP RP17815	TSP RP15564	TSP RP27590	TSP RP15236	RDL	QC Batch
PM2.5/10									
Particulate Matter	ug/filter	177	173	94	655	559	335	3	7535261
RDL = Reportable Detection Limit									

Maxxam ID		JW1441	JW1442	JW1443	JW1444	JW1447	JW1508		
Sampling Date		2014/05/06	2014/05/12	2014/05/18	2014/05/24	2014/05/30			
	Units	TSP RP14336	TSP RP44274	TSP RP22665	TSP RP907	TSP RP95651	TRAVEL BLANK RP9917	RDL	QC Batch
PM2.5/10									
Particulate Matter	ug/filter	2380	242	1080	259	129	18	3	7535261
RDL = Reportable Detection Limit									

Maxxam ID		JX3497		
Sampling Date		2014/04/24		
	Units	PM2.5 RP893	RDL	QC Batch
PM2.5/10				
Particulate Matter	ug/filter	40	3	7535261
RDL = Reportable Detection Limit				

Maxxam Job #: B450096
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B450096
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Darren Funnell", is written over a horizontal line.

Darren Funnell, Analyst I

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. #: 90762
 Your Project #: 2014/04/27 - 2014/06/04
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/06/23
 Report #: R1590398
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B448774

Received: 2014/06/12, 14:12

Sample Matrix: Air
 # Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/06/23	2014/06/23	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/06/23	2014/06/23	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, Customer Service

Email: LManchak@maxxam.ca

Phone# (780) 378-8500

=====

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Maxxam Job #: B448774
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		JV2946	JV2947		JV2948	
Sampling Date		2014/04/27 17:08	2014/04/27 10:24			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.5	2.6	0.1		7536260
NO2	ppm				0.06	7536266
RDL = Reportable Detection Limit						

Maxxam Job #: B448774
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B448774
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7536260	DF4	Spiked Blank	Calculated NO2	2014/06/23		107	%	90 - 110
7536260	DF4	Method Blank	Calculated NO2	2014/06/23	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B448774
Report Date: 2014/06/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 Your Project #: 2014/04/27 - 2014/06/04
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/06/18
 Report #: R1587566
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B448769

Received: 2014/06/12, 14:09

Sample Matrix: Air
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/06/18	2014/06/18	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/06/18	2014/06/18	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/06/17	2014/06/17	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

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Maxxam Job #: B448769
Report Date: 2014/06/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		JV2929	JV2930	JV2931	JV2932		
Sampling Date		2014/04/27	2014/04/27	2014/04/27	2014/04/27		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	38	38	38	38	1	7528913
Dustfall Determination							
Total Dustfall	mg	28	38	19	20	1	7530566
Total Dustfall (30 day)	mg/cm2/30day	0.267	0.371	0.183	0.196	0.001	7530567
Total Fixed Dustfall	mg	25	31	15	15	1	7530566
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.238	0.302	0.149	0.149	0.001	7530567
RDL = Reportable Detection Limit							

Maxxam Job #: B448769
Report Date: 2014/06/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B448769
Report Date: 2014/06/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7530566	OZ	Method Blank	Total Dustfall	2014/06/18	<1		mg	
			Total Fixed Dustfall	2014/06/18	<1		mg	
7530566	OZ	RPD [JV2929-01]	Total Dustfall	2014/06/18	2.2		%	N/A
			Total Fixed Dustfall	2014/06/18	5.0		%	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.								

Maxxam Job #: B448769
Report Date: 2014/06/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/04/27 - 2014/06/04
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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A handwritten signature in black ink, appearing to read "Darren Funnell", is written over a horizontal line.

Darren Funnell, Analyst I

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Your P.O. #: 90762
 Your Project #: 2014/06/04 - 2014/07/29
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/08/18
 Report #: R1623068
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B467810

Received: 2014/08/07, 13:01

Sample Matrix: Air
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/08/13	2014/08/13	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/08/13	2014/08/13	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/08/08	2014/08/08	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

=====

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Maxxam Job #: B467810
Report Date: 2014/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KH0557	KH0558	KH0559	KH0561		
Sampling Date		2014/06/04	2014/06/04	2014/06/04	2014/06/04		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	55	55	55	55	1	7593437
Dustfall Determination							
Total Dustfall	mg	20	27	17	16	1	7599117
Total Dustfall (30 day)	mg/cm2/30day	0.132	0.180	0.116	0.104	0.001	7599118
Total Fixed Dustfall	mg	13	10	13	10	1	7599117
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.088	0.068	0.084	0.068	0.001	7599118
RDL = Reportable Detection Limit							

Maxxam Job #: B467810
Report Date: 2014/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B467810
Report Date: 2014/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7599117	OZ	Method Blank	Total Dustfall	2014/08/13	<1		mg	
			Total Fixed Dustfall	2014/08/13	<1		mg	
7599117	OZ	RPD [KH0557-01]	Total Dustfall	2014/08/13	3.0		%	N/A
			Total Fixed Dustfall	2014/08/13	0		%	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.								

Maxxam Job #: B467810
Report Date: 2014/08/18

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 Your Project #: 2014/06/04 - 2014/07/29
 Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
 Meadowbank Division
 10200, Route du Preissac
 Rouyn-Noranda, QC
 CANADA J0Y 1C0

Report Date: 2014/08/15
 Report #: R1622201
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B467801

Received: 2014/08/07, 12:56

Sample Matrix: Air
 # Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/08/11	2014/08/15	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/08/11	2014/08/11	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 #: B467801
Report Date: 2014/08/15

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KH0505	KH0506		KH0507	
Sampling Date		2014/06/04 09:35	2014/06/04 11:27			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.7	1.6	0.1		7595843
NO2	ppm				0.08	7595847
RDL = Reportable Detection Limit						

Maxxam Job #: B467801
Report Date: 2014/08/15

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B467801
Report Date: 2014/08/15

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7595843	SS6	Spiked Blank	Calculated NO2	2014/08/11		98	%	90 - 110
7595843	SS6	Method Blank	Calculated NO2	2014/08/11	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B467801
Report Date: 2014/08/15

Agnico Eagle Mines Ltd.
Client Project #: 2014/06/04 - 2014/07/29
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Your P.O. #: 90762
 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 J0Y 1C0

Report Date: 2014/08/22
 Report #: R1626894
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B467757

Received: 2014/08/14, 12:17

Sample Matrix: Filter
 # Samples Received: 31

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Mass Determination(ug/filter)	31	N/A	2014/08/22	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

=====

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Maxxam Job #: B467757
Report Date: 2014/08/22

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KH0255	KH0256	KH0257	KH0258	KH0259		
Sampling Date		2014/07/04	2014/07/10	2014/07/16	2014/07/22	2014/07/28		
	Units	PM2.5 RP13102	PM2.5 RP9932	PM2.5 RP22198	PM2.5 RP20606	PM2.5 RP876	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	6	28	120	10	20	3	7610432
RDL = Reportable Detection Limit								

Maxxam ID		KH0260	KH0261	KH0262	KH0263	KH0264		
Sampling Date		2014/07/04	2014/07/10	2014/07/16	2014/07/22	2014/07/28		
	Units	PM2.5 RP19960	PM2.5 RP29748	PM2.5 RP28681	PM2.5 RP98002	PM2.5 RP15480	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	50	50	1160	142	198	3	7610432
RDL = Reportable Detection Limit								

Maxxam ID		KH0268	KH0269	KH0270	KH0271	KH0272		
Sampling Date		2014/07/04	2014/07/10	2014/07/16	2014/07/22	2014/07/28		
	Units	PM10 RP15542	PM10 RP13291	PM10 RP27289	PM10 RP15521	PM10 RP4233	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	192	196	1320	736	437	3	7610432
RDL = Reportable Detection Limit								

Maxxam ID		KH0273	KH0274	KH0275	KH0276	KH0277	KH0282		
Sampling Date		2014/07/04	2014/07/10	2014/07/16	2014/07/22	2014/07/28	2014/07/04		
	Units	PM10 RP9937	PM10 RP90582	PM10 RP92799	PM10 RP9911	PM10 RP22217	TSP RP54425	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	185	387	416	240	182	151	3	7610432
RDL = Reportable Detection Limit									

Maxxam ID		KH0283	KH0284	KH0285	KH0286	KH0287	KH0288		
Sampling Date		2014/07/10	2014/07/16	2014/07/22	2014/07/28	2014/07/04	2014/07/10		
	Units	TSP RP90254	TSP RP27510	TSP RP27431	TSP RP90540	TSP RP40117	TSP RP9943	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	61	1400	295	612	384	780	3	7610432
RDL = Reportable Detection Limit									

Maxxam Job #: B467757
Report Date: 2014/08/22

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KH0289	KH0290		KH0291	KH0296		
Sampling Date		2014/07/16	2014/07/22		2014/07/28			
	Units	TSP RP76151	TSP RP903	QC Batch	TSP RP87482	TRAVEL BLANK RP89966	RDL	QC Batch
PM2.5/10								
Particulate Matter	ug/filter	2110	221	7610432	1060	<3	3	7610433
RDL = Reportable Detection Limit								

Maxxam Job #: B467757
Report Date: 2014/08/22

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Sample KH0260-01 : Sample container labeled as RP022207. Filter ID RP 19960.

Sample KH0262-01 : Sample (KH0262) RP28681 is visibly darker. JP

Sample KH0270-01 : Sample (KH0270) RP27289 is visibly darker. JP

Sample KH0271-01 : Sample (KH0271) RP 15521 is visibly darker. JP

Sample KH0284-01 : Sample (KH0284) RP27510 is visibly darker. JP

Sample KH0286-01 : Sample (KH0286) RP90540 is visibly darker. JP

Sample KH0289-01 : Sample (KH0289) RP76151 is visibly darker. JP

Sample KH0291-01 : Sample (KH0291) RP87482 is visibly darker. JP

Results relate only to the items tested.

Maxxam Job #: B467757
Report Date: 2014/08/22

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
 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 J0Y 1C0

Report Date: 2014/08/13
 Report #: R1620829
 Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B467783

Received: 2014/08/07, 12:40

Sample Matrix: Filter
 # Samples Received: 31

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	31	N/A	2014/08/13	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

=====

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Maxxam Job #: B467783
Report Date: 2014/08/13

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KH0410	KH0411	KH0412	KH0413	KH0414	KH0415		
Sampling Date		2014/06/04	2014/06/10	2014/06/16	2014/06/22	2014/06/28	2014/06/04		
	Units	PM2.5 RP29749	PM2.5 RP920	PM2.5 RP9948	PM2.5 RP892	PM2.5 RP28643	PM2.5 RP1582	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	16	13	7	10	10	66	3	7598965
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RDL = Reportable Detection Limit

Maxxam ID		KH0416	KH0417	KH0418	KH0419	KH0420		
Sampling Date		2014/06/10	2014/06/16	2014/06/22	2014/06/28	2014/06/04		
	Units	PM2.5 RP10071	PM2.5 RP87500	PM2.5 RP19960	PM2.5 RP22621	PM10 RP27721	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	80	25	50	50	397	3	7598965
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RDL = Reportable Detection Limit

Maxxam ID		KH0421	KH0422	KH0423	KH0424	KH0425	KH0426		
Sampling Date		2014/06/10	2014/06/16	2014/06/22	2014/06/28	2014/06/04	2014/06/10		
	Units	PM10 RP2880	PM10 RP905	PM10 RP872	PM10 RP2875	PM10 RP28543	PM10 RP22216	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	485	126	297	130	287	134	3	7598965
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RDL = Reportable Detection Limit

Maxxam ID		KH0427	KH0428	KH0429	KH0430	KH0431	KH0432		
Sampling Date		2014/06/16	2014/06/22	2014/06/28	2014/06/04	2014/06/10	2014/06/16		
	Units	PM10 RP915	PM10 RP9946	PM10 RP27513	TSP RP28672	TSP RP10060	TSP RP895	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	99	110	18	186	468	213	3	7598965
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RDL = Reportable Detection Limit

Maxxam ID		KH0433	KH0434	KH0435	KH0436	KH0437	KH0438		
Sampling Date		2014/06/22	2014/06/28	2014/06/04	2014/06/10	2014/06/16	2014/06/22		
	Units	TSP RP82055	TSP RP54427	TSP RP27284	TSP RP9940	TSP RP10346	TSP RP15062	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	24	128	261	444	300	188	3	7598965
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RDL = Reportable Detection Limit

Maxxam Job #: B467783
Report Date: 2014/08/13

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KH0439		KH0440		
Sampling Date		2014/06/28				
	Units	TSP RP84094	QC Batch	TRAVEL BLANK RP28670	RDL	QC Batch
PM2.5/10						
Particulate Matter	ug/filter	461	7598965	6	3	7598966
RDL = Reportable Detection Limit						

Maxxam Job #: B467783
Report Date: 2014/08/13

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B467783
Report Date: 2014/08/13

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink, appearing to read "Linda Lin", is written over a horizontal line.

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. #: 90762
Your Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/09/23
Report #: R1647470
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B482901

Received: 2014/09/18, 11:11

Sample Matrix: Air
Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/09/22	2014/09/23	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/09/22	2014/09/22	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 #: B482901
Report Date: 2014/09/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KQ0027	KQ0028		KQ0029	
Sampling Date		2014/07/29 14:08	2014/07/29 15:39			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.6	2.0	0.1		7642973
NO2	ppm				0.07	7647936
RDL = Reportable Detection Limit						

Maxxam Job #: B482901
Report Date: 2014/09/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B482901
Report Date: 2014/09/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7642973	SS6	Spiked Blank	Calculated NO2	2014/09/22		99	%	90 - 110
7642973	SS6	Method Blank	Calculated NO2	2014/09/22	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B482901
Report Date: 2014/09/23

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Your P.O. #: 90762
Your Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/09/25
Report #: R1649084
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B482896

Received: 2014/09/18, 11:08

Sample Matrix: Air
Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/09/24	2014/09/24	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/09/24	2014/09/24	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/09/24	2014/09/24	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

=====

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Maxxam Job #: B482896
Report Date: 2014/09/25

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KQ0007	KQ0008	KQ0009	KQ0010		
Sampling Date		2014/07/29	2014/07/29	2014/07/29	2014/07/29		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	40	40	40	40	1	7651980
Dustfall Determination							
Total Dustfall	mg	31	22	24	14	1	7651977
Total Dustfall (30 day)	mg/cm2/30day	0.283	0.198	0.220	0.127	0.001	7651978
Total Fixed Dustfall	mg	18	14	11	8	1	7651977
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.161	0.124	0.099	0.072	0.001	7651978
RDL = Reportable Detection Limit							

Maxxam Job #: B482896
Report Date: 2014/09/25

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B482896
Report Date: 2014/09/25

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7651977	SSZ	Method Blank	Total Dustfall	2014/09/24	<1		mg	
			Total Fixed Dustfall	2014/09/24	<1		mg	
7651977	SSZ	RPD [KQ0007-01]	Total Dustfall	2014/09/24	2.2		%	N/A
			Total Fixed Dustfall	2014/09/24	0		%	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.								

Maxxam Job #: B482896
Report Date: 2014/09/25

Agnico Eagle Mines Ltd.
Client Project #: 2014/07/29 - 2014/09/07
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
Your Project #: 2014/08/18 - 2014/09/19
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/10/16
Report #: R1663782
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B487284

Received: 2014/09/30, 11:08

Sample Matrix: Air
Samples Received: 41

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Determination of Dustfall-mg/cm2/30 days	5	2014/10/08	2014/10/08	PTC SOP-00180	
Determination of Dustfall-mg/cm2/30 days	12	2014/10/08	2014/10/10	PTC SOP-00180	
Determination of Dustfall-mg/cm2/30 days	12	2014/10/08	2014/10/14	PTC SOP-00180	
Determination of Dustfall-mg/cm2/30 days	12	2014/10/08	2014/10/15	PTC SOP-00180	
Total & Fixed Dustfall	5	2014/10/08	2014/10/08	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	12	2014/10/08	2014/10/10	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	12	2014/10/08	2014/10/14	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	12	2014/10/08	2014/10/15	PTC SOP-00180	AMD 32020
Exposure (Number of days)	41	2014/10/08	2014/10/08	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

=====

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Maxxam Job #: B487284
Report Date: 2014/10/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/08/18 - 2014/09/19
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KS7000	KS7001	KS7002	KS7003	KS7013	KS7014		
Sampling Date		2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18		
	Units	DF-T7	DF-V-S-50	DF-V-N-50	DF-18E-50A	DF-18E-50B	DF-18E-100A	RDL	QC Batch

Industrial									
Exposure	days	32	32	31	31	31	31	1	7671254
Dustfall Determination									
Total Dustfall	mg	10	260	49	67	59	39	1	7671574
Total Dustfall (30 day)	mg/cm2/30day	0.110	3.030	0.576	0.789	0.704	0.462	0.001	7671576
Total Fixed Dustfall	mg	7	250	46	65	57	38	1	7671574
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.076	2.886	0.540	0.768	0.675	0.455	0.001	7671576
RDL = Reportable Detection Limit									

Maxxam ID		KS7018	KS7019	KS7020	KS7021	KS7022	KS7023		
Sampling Date		2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18		
	Units	DF-18E-100B	DF-18E-150A	DF-18E-150B	DF-18E-300A	DF-18E-300B	DF-18W-150A	RDL	QC Batch

Industrial									
Exposure	days	31	31	31	31	31	31	1	7671254
Dustfall Determination									
Total Dustfall	mg	26	20	26	17	18	230	1	7671574
Total Dustfall (30 day)	mg/cm2/30day	0.306	0.242	0.313	0.199	0.213	2.709	0.001	7671576
Total Fixed Dustfall	mg	25	20	26	16	17	92	1	7671574
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.299	0.242	0.313	0.192	0.199	1.088	0.001	7671576
RDL = Reportable Detection Limit									

Maxxam ID		KS7024	KS7025	KS7026	KS7027	KS7029	KS7071		
Sampling Date		2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18		
	Units	DF-18W-150B	DF-18W-100A	DF-18W-100B	DF-18W-50A	DF-18W-50B	DF-1E	RDL	QC Batch

Industrial									
Exposure	days	31	31	31	31	31	31	1	7671254
Dustfall Determination									
Total Dustfall	mg	14	28	26	38	31	28	1	7671574
Total Dustfall (30 day)	mg/cm2/30day	0.171	0.334	0.306	0.455	0.370	0.327	0.001	7671576
Total Fixed Dustfall	mg	14	27	24	37	31	25	1	7671574
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.164	0.320	0.284	0.434	0.363	0.291	0.001	7671576
RDL = Reportable Detection Limit									

Maxxam Job #: B487284
Report Date: 2014/10/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/08/18 - 2014/09/19
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KS7072	KS7073	KS7074	KS7076	KS7077	KS7078		
Sampling Date		2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18	2014/08/18		
	Units	DF-1W	DF-78E-50A	DF-78E-50B	DF-78E-100A	DF-78E-100B	DF-78E-150A	RDL	QC Batch

Industrial									
Exposure	days	31	31	31	31	31	31	1	7671254
Dustfall Determination									
Total Dustfall	mg	16	98	93	57	43	30	1	7671574
Total Dustfall (30 day)	mg/cm2/30day	0.185	1.159	1.102	0.675	0.512	0.357	0.001	7671576
Total Fixed Dustfall	mg	13	95	91	54	41	30	1	7671574
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.149	1.123	1.074	0.640	0.483	0.357	0.001	7671576
RDL = Reportable Detection Limit									

Maxxam ID		KS7080	KS7081	KS7083		KS7084	KS7086		
Sampling Date		2014/08/18	2014/08/18	2014/08/18		2014/08/18	2014/08/18		
	Units	DF-78E-150B	DF-78E-300A	DF-78E-300B	QC Batch	DF-78W-150A	DF-78W-150B	RDL	QC Batch

Industrial									
Exposure	days	31	31	31	7671254	31	31	1	7671254
Dustfall Determination									
Total Dustfall	mg	70	25	18	7671574	20	17	1	7671575
Total Dustfall (30 day)	mg/cm2/30day	0.834	0.299	0.216	7671576	0.241	0.206	0.001	7671576
Total Fixed Dustfall	mg	68	23	16	7671574	20	16	1	7671575
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.806	0.277	0.191	7671576	0.232	0.192	0.001	7671576
RDL = Reportable Detection Limit									

Maxxam ID		KS7087		KS7088	KS7089	KS7090	KS7098		
Sampling Date		2014/08/18		2014/08/18	2014/08/18	2014/08/18	2014/08/18		
	Units	DF-78W-100A	QC Batch	DF-78W-100B	DF-78W-50A	DF-78E-50B	DF-EMR-S-50	RDL	QC Batch

Industrial									
Exposure	days	31	7671254	31	31	31	31	1	7671261
Dustfall Determination									
Total Dustfall	mg	18	7671575	19	41	33	41	1	7671575
Total Dustfall (30 day)	mg/cm2/30day	0.213	7671576	0.228	0.491	0.391	0.489	0.001	7671577
Total Fixed Dustfall	mg	17	7671575	17	37	32	39	1	7671575
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.199	7671576	0.199	0.441	0.384	0.464	0.001	7671577
RDL = Reportable Detection Limit									

Maxxam Job #: B487284
Report Date: 2014/10/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/08/18 - 2014/09/19
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KS7099		KS7100	KS7101		KU8892		
Sampling Date		2014/08/18		2014/08/18	2014/08/18		2014/08/18		
	Units	DF-EMR-N-50	QC Batch	DF-C-1	DF-C-2	QC Batch	DUP 1	RDL	QC Batch
Industrial									
Exposure	days	31	7671261	34	34	7671258	31	1	7671261
Dustfall Determination									
Total Dustfall	mg	62	7671575	13	3	7671575	35	1	7671575
Total Dustfall (30 day)	mg/cm2/30day	0.738	7671577	0.136	0.032	7671577	0.412	0.001	7671577
Total Fixed Dustfall	mg	61	7671575	11	2	7671575	34	1	7671575
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.722	7671577	0.117	0.026	7671577	0.405	0.001	7671577
RDL = Reportable Detection Limit									

Maxxam ID		KU8893	KU8894		KU8895		
Sampling Date		2014/08/18	2014/08/18		2014/08/18		
	Units	DUP 2	DUP 3	QC Batch	DUP 4	RDL	QC Batch
Industrial							
Exposure	days	31	31	7671261	31	1	7671270
Dustfall Determination							
Total Dustfall	mg	30	22	7671575	19	1	7671575
Total Dustfall (30 day)	mg/cm2/30day	0.355	0.257	7671577	0.228	0.001	7671577
Total Fixed Dustfall	mg	29	20	7671575	18	1	7671575
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.348	0.241	7671577	0.213	0.001	7671577
RDL = Reportable Detection Limit							

Maxxam Job #: B487284
Report Date: 2014/10/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/08/18 - 2014/09/19
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B487284
Report Date: 2014/10/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/08/18 - 2014/09/19
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7671574	OZ	Method Blank	Total Dustfall	2014/10/08	<1		mg	
			Total Fixed Dustfall	2014/10/08	<1		mg	
7671574	OZ	RPD [KS7014-01]	Total Dustfall	2014/10/10	1.6		%	N/A
			Total Fixed Dustfall	2014/10/10	3.2		%	N/A
7671574	OZ	RPD [KS7071-01]	Total Dustfall	2014/10/14	2.2		%	N/A
			Total Fixed Dustfall	2014/10/14	0		%	N/A
7671575	OZ	Method Blank	Total Dustfall	2014/10/10	<1		mg	
			Total Fixed Dustfall	2014/10/10	<1		mg	
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.								

Maxxam Job #: B487284
Report Date: 2014/10/16

Agnico Eagle Mines Ltd.
Client Project #: 2014/08/18 - 2014/09/19
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
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 J0Y 1C0

Report Date: 2014/09/24
Report #: R1648417
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B482904

Received: 2014/09/18, 11:14

Sample Matrix: Filter
Samples Received: 38

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Mass Determination(ug/filter)	38	N/A	2014/09/24	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 #: B482904
Report Date: 2014/09/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KQ0039	KQ0040	KQ0041	KQ0042	KQ0043		
Sampling Date		2014/08/03	2014/08/09	2014/08/15	2014/08/21	2014/08/27		
	Units	PM2.5 RP50778	PM2.5 RP71615	PM2.5 RP25442	PM2.5 RP27592	PM2.5 RP15531	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	43	8	<3	9	7	3	7650755
RDL = Reportable Detection Limit								

Maxxam ID		KQ0044	KQ0045	KQ0046	KQ0047	KQ0048		
Sampling Date		2014/09/02	2014/08/03	2014/08/09	2014/08/15	2014/08/21		
	Units	PM2.5 RP13270	PM2.5 RP914	PM2.5 RP24935	PM2.5 RP86155	PM2.5 RP91098	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	18	532	177	33	149	3	7650755
RDL = Reportable Detection Limit								

Maxxam ID		KQ0049	KQ0050	KQ0051	KQ0052	KQ0053		
Sampling Date		2014/08/27	2014/09/02	2014/08/03	2014/08/09	2014/08/15		
	Units	PM2.5 RP14316	PM2.5 RP22665	PM10 RP27805	PM10 RP15236	PM10 RP10074	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	82	64	875	201	186	3	7650755
RDL = Reportable Detection Limit								

Maxxam ID		KQ0054	KQ0056	KQ0057	KQ0058	KQ0059	KQ0060		
Sampling Date		2014/08/21	2014/08/27	2014/09/02	2014/08/03	2014/08/09	2014/08/15		
	Units	PM10 RP27773	PM10 RP27587	PM10 RP896	PM10 RP2881	PM10 RP17815	PM10 RP28690	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	586	311	216	180	164	52	3	7650755
RDL = Reportable Detection Limit									

Maxxam ID		KQ0061	KQ0062	KQ0063	KQ0064	KQ0065	KQ0066		
Sampling Date		2014/08/21	2014/08/27	2014/09/02	2014/08/03	2014/08/09	2014/08/15		
	Units	PM10 RP27516	PM10 RP10348	PM10 RP76204	TSP RP15533	TSP RP15564	TSP RP22903	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	270	116	436	869	321	125	3	7650755
RDL = Reportable Detection Limit									

Maxxam Job #: B482904
Report Date: 2014/09/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KQ0067	KQ0068		KQ0069	KQ0094	KQ0095	KQ0096		
Sampling Date		2014/08/21	2014/08/27		2014/09/02	2014/08/03	2014/08/09	2014/08/15		
	Units	TSP RP22896	TSP RP95651	QC Batch	TSP RP14336	TSP RP91301	TSP RP4248	TSP RP58031	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	60	179	7650755	128	1180	558	57	3	7650756
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RDL = Reportable Detection Limit

Maxxam ID		KQ0097	KQ0098	KQ0099	KQ0100	KQ0165		
Sampling Date		2014/08/21	2014/08/27	2014/09/02				
	Units	TSP RP44274	TSP RP921	TSP RP27515	TRAVEL BLANK RP87506	LAB BLANK	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	162	286	226	11	<3	3	7650756
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RDL = Reportable Detection Limit

Maxxam Job #: B482904
Report Date: 2014/09/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Sample KQ0042-01 : Sample listed on COC as RP27593. Returned sample ID from stamped RP# is RP27592.

Sample KQ0060-01 : Sample listed on COC as RP28669. Returned sample ID from stamped RP# is RP28690.

Results relate only to the items tested.

Maxxam Job #: B482904
Report Date: 2014/09/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

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 C.O.C. #: na

Attention:Levi Manchak

Maxxam Analytics
From Edmonton Env to Bedford
9619 42 Ave
Edmonton, AB
T6E 5R2

Report Date: 2014/11/03

Report #: R3209543

Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B4K1524

Received: 2014/10/28, 10:00

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Total Metals Analysis by ICPMS	3	N/A	2014/11/03	CAM SOP-00447	EPA 6020 m

* 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.

Theresa Stephenson, Project Manager

Email: TStephenson@maxxam.ca

Phone# (905)817-5763

=====

This report has been generated and distributed using a secure automated process.

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 #: B4K1524
Report Date: 2014/11/03

Maxxam Analytics

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		YE5706	YE5707	YE5708		
Sampling Date		2014/09/07 15:45	2014/09/19 15:45	2014/09/18 15:45		
COC Number		na	na	na		
	Units	DF-3	DF-T7	DF-78E-102A	RDL	QC Batch
Metals						
Total Aluminum (Al)	ug/L	11	8.1	1600	5.0	3808759
Total Antimony (Sb)	ug/L	0.72	1.7	2.7	0.50	3808759
Total Arsenic (As)	ug/L	ND	ND	ND	1.0	3808759
Total Barium (Ba)	ug/L	ND	4.4	11	2.0	3808759
Total Beryllium (Be)	ug/L	ND	ND	ND	0.50	3808759
Total Bismuth (Bi)	ug/L	ND	ND	ND	1.0	3808759
Total Boron (B)	ug/L	10	ND	ND	10	3808759
Total Cadmium (Cd)	ug/L	ND	ND	ND	0.10	3808759
Total Calcium (Ca)	ug/L	230	490	2600	200	3808759
Total Chromium (Cr)	ug/L	ND	ND	14	5.0	3808759
Total Cobalt (Co)	ug/L	ND	ND	1.9	0.50	3808759
Total Copper (Cu)	ug/L	1800	2900	4400	1.0	3808759
Total Iron (Fe)	ug/L	170	ND	3100	100	3808759
Total Lead (Pb)	ug/L	ND	ND	0.75	0.50	3808759
Total Lithium (Li)	ug/L	ND	ND	ND	5.0	3808759
Total Magnesium (Mg)	ug/L	56	98	1500	50	3808759
Total Manganese (Mn)	ug/L	3.4	9.1	77	2.0	3808759
Total Molybdenum (Mo)	ug/L	ND	ND	ND	0.50	3808759
Total Nickel (Ni)	ug/L	ND	ND	5.1	1.0	3808759
Total Potassium (K)	ug/L	ND	250	660	200	3808759
Total Silicon (Si)	ug/L	ND	56	2000	50	3808759
Total Selenium (Se)	ug/L	ND	ND	ND	2.0	3808759
Total Silver (Ag)	ug/L	ND	ND	ND	0.10	3808759
Total Sodium (Na)	ug/L	100	140	180	100	3808759
Total Strontium (Sr)	ug/L	ND	2.6	11	1.0	3808759
Total Tellurium (Te)	ug/L	ND	ND	ND	1.0	3808759
Total Thallium (Tl)	ug/L	ND	ND	ND	0.050	3808759
Total Tin (Sn)	ug/L	ND	ND	ND	1.0	3808759
Total Titanium (Ti)	ug/L	ND	ND	35	5.0	3808759
Total Tungsten (W)	ug/L	ND	ND	ND	1.0	3808759
Total Uranium (U)	ug/L	0.10	ND	1.5	0.10	3808759
Total Vanadium (V)	ug/L	ND	ND	3.1	0.50	3808759
Total Zinc (Zn)	ug/L	6.2	11	13	5.0	3808759
Total Zirconium (Zr)	ug/L	ND	ND	2.9	1.0	3808759
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
ND = Not detected						

Maxxam Job #: B4K1524
Report Date: 2014/11/03

Maxxam Analytics

GENERAL COMMENTS

Samples received at 16°C.

Results relate only to the items tested.

Maxxam Job #: B4K1524
Report Date: 2014/11/03

Maxxam Analytics

QUALITY ASSURANCE REPORT

QA/QC			Date		Value	Recovery	Units	QC Limits
Batch	Init	QC Type	Parameter	Analyzed				
3808759	ADA	Matrix Spike	Total Aluminum (Al)	2014/11/03		NC	%	80 - 120
			Total Antimony (Sb)	2014/11/03		105	%	80 - 120
			Total Arsenic (As)	2014/11/03		97	%	80 - 120
			Total Barium (Ba)	2014/11/03		98	%	80 - 120
			Total Beryllium (Be)	2014/11/03		95	%	80 - 120
			Total Bismuth (Bi)	2014/11/03		97	%	80 - 120
			Total Boron (B)	2014/11/03		115	%	80 - 120
			Total Cadmium (Cd)	2014/11/03		101	%	80 - 120
			Total Calcium (Ca)	2014/11/03		NC	%	80 - 120
			Total Chromium (Cr)	2014/11/03		95	%	80 - 120
			Total Cobalt (Co)	2014/11/03		93	%	80 - 120
			Total Copper (Cu)	2014/11/03		97	%	80 - 120
			Total Iron (Fe)	2014/11/03		94	%	80 - 120
			Total Lead (Pb)	2014/11/03		95	%	80 - 120
			Total Lithium (Li)	2014/11/03		98	%	80 - 120
			Total Magnesium (Mg)	2014/11/03		NC	%	80 - 120
			Total Manganese (Mn)	2014/11/03		95	%	80 - 120
			Total Molybdenum (Mo)	2014/11/03		104	%	80 - 120
			Total Nickel (Ni)	2014/11/03		93	%	80 - 120
			Total Potassium (K)	2014/11/03		104	%	80 - 120
			Total Silicon (Si)	2014/11/03		97	%	80 - 120
			Total Selenium (Se)	2014/11/03		97	%	80 - 120
			Total Silver (Ag)	2014/11/03		94	%	80 - 120
			Total Sodium (Na)	2014/11/03		NC	%	80 - 120
			Total Strontium (Sr)	2014/11/03		NC	%	80 - 120
			Total Tellurium (Te)	2014/11/03		102	%	80 - 120
			Total Thallium (Tl)	2014/11/03		96	%	80 - 120
			Total Tin (Sn)	2014/11/03		89	%	80 - 120
			Total Titanium (Ti)	2014/11/03		98	%	80 - 120
			Total Tungsten (W)	2014/11/03		98	%	80 - 120
			Total Uranium (U)	2014/11/03		99	%	80 - 120
			Total Vanadium (V)	2014/11/03		94	%	80 - 120
			Total Zinc (Zn)	2014/11/03		96	%	80 - 120
			Total Zirconium (Zr)	2014/11/03		80	%	80 - 120
3808759	ADA	Spiked Blank	Total Aluminum (Al)	2014/11/03		96	%	80 - 120
			Total Antimony (Sb)	2014/11/03		102	%	80 - 120
			Total Arsenic (As)	2014/11/03		97	%	80 - 120
			Total Barium (Ba)	2014/11/03		95	%	80 - 120
			Total Beryllium (Be)	2014/11/03		94	%	80 - 120
			Total Bismuth (Bi)	2014/11/03		94	%	80 - 120
			Total Boron (B)	2014/11/03		97	%	80 - 120
			Total Cadmium (Cd)	2014/11/03		98	%	80 - 120
			Total Calcium (Ca)	2014/11/03		98	%	80 - 120
			Total Chromium (Cr)	2014/11/03		95	%	80 - 120
			Total Cobalt (Co)	2014/11/03		93	%	80 - 120
			Total Copper (Cu)	2014/11/03		94	%	80 - 120
			Total Iron (Fe)	2014/11/03		97	%	80 - 120
			Total Lead (Pb)	2014/11/03		95	%	80 - 120
			Total Lithium (Li)	2014/11/03		93	%	80 - 120
			Total Magnesium (Mg)	2014/11/03		97	%	80 - 120
			Total Manganese (Mn)	2014/11/03		96	%	80 - 120
			Total Molybdenum (Mo)	2014/11/03		101	%	80 - 120
			Total Nickel (Ni)	2014/11/03		93	%	80 - 120
			Total Potassium (K)	2014/11/03		105	%	80 - 120

Maxxam Job #: B4K1524
Report Date: 2014/11/03

Maxxam Analytics

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
3808759	ADA	Method Blank	Total Silicon (Si)	2014/11/03		95	%	80 - 120
			Total Selenium (Se)	2014/11/03		97	%	80 - 120
			Total Silver (Ag)	2014/11/03		94	%	80 - 120
			Total Sodium (Na)	2014/11/03		100	%	80 - 120
			Total Strontium (Sr)	2014/11/03		95	%	80 - 120
			Total Tellurium (Te)	2014/11/03		99	%	80 - 120
			Total Thallium (Tl)	2014/11/03		96	%	80 - 120
			Total Tin (Sn)	2014/11/03		102	%	80 - 120
			Total Titanium (Ti)	2014/11/03		96	%	80 - 120
			Total Tungsten (W)	2014/11/03		96	%	80 - 120
			Total Uranium (U)	2014/11/03		96	%	80 - 120
			Total Vanadium (V)	2014/11/03		94	%	80 - 120
			Total Zinc (Zn)	2014/11/03		97	%	80 - 120
			Total Zirconium (Zr)	2014/11/03		105	%	80 - 120
			Total Aluminum (Al)	2014/11/03	5.4, RDL=5.0		ug/L	
			Total Antimony (Sb)	2014/11/03	ND, RDL=0.50		ug/L	
			Total Arsenic (As)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Barium (Ba)	2014/11/03	ND, RDL=2.0		ug/L	
			Total Beryllium (Be)	2014/11/03	ND, RDL=0.50		ug/L	
			Total Bismuth (Bi)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Boron (B)	2014/11/03	13, RDL=10		ug/L	
			Total Cadmium (Cd)	2014/11/03	ND, RDL=0.10		ug/L	
			Total Calcium (Ca)	2014/11/03	ND, RDL=200		ug/L	
			Total Chromium (Cr)	2014/11/03	ND, RDL=5.0		ug/L	
			Total Cobalt (Co)	2014/11/03	ND, RDL=0.50		ug/L	
			Total Copper (Cu)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Iron (Fe)	2014/11/03	ND, RDL=100		ug/L	
			Total Lead (Pb)	2014/11/03	ND, RDL=0.50		ug/L	
			Total Lithium (Li)	2014/11/03	ND, RDL=5.0		ug/L	
			Total Magnesium (Mg)	2014/11/03	ND, RDL=50		ug/L	
			Total Manganese (Mn)	2014/11/03	ND, RDL=2.0		ug/L	
			Total Molybdenum (Mo)	2014/11/03	ND, RDL=0.50		ug/L	
			Total Nickel (Ni)	2014/11/03	ND, RDL=1.0		ug/L	

Maxxam Job #: B4K1524
Report Date: 2014/11/03

Maxxam Analytics

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
3808759	ADA	RPD	Total Potassium (K)	2014/11/03	ND, RDL=200		ug/L	
			Total Silicon (Si)	2014/11/03	99, RDL=50		ug/L	
			Total Selenium (Se)	2014/11/03	ND, RDL=2.0		ug/L	
			Total Silver (Ag)	2014/11/03	ND, RDL=0.10		ug/L	
			Total Sodium (Na)	2014/11/03	ND, RDL=100		ug/L	
			Total Strontium (Sr)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Tellurium (Te)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Thallium (Tl)	2014/11/03	ND, RDL=0.050		ug/L	
			Total Tin (Sn)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Titanium (Ti)	2014/11/03	ND, RDL=5.0		ug/L	
			Total Tungsten (W)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Uranium (U)	2014/11/03	ND, RDL=0.10		ug/L	
			Total Vanadium (V)	2014/11/03	ND, RDL=0.50		ug/L	
			Total Zinc (Zn)	2014/11/03	ND, RDL=5.0		ug/L	
			Total Zirconium (Zr)	2014/11/03	ND, RDL=1.0		ug/L	
			Total Aluminum (Al)	2014/11/03	1.5		%	20
			Total Cadmium (Cd)	2014/11/03	NC		%	20
			Total Chromium (Cr)	2014/11/03	NC		%	20
			Total Copper (Cu)	2014/11/03	4.2		%	20
			Total Iron (Fe)	2014/11/03	5.0		%	20
			Total Lead (Pb)	2014/11/03	5.1		%	20
			Total Nickel (Ni)	2014/11/03	NC		%	20
			Total Zinc (Zn)	2014/11/03	5.7		%	20

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

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

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.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).



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 #: B4K1524
Report Date: 2014/11/03

Maxxam Analytics

VALIDATION SIGNATURE PAGE

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

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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. #: 90762
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 J0Y 1C0

Report Date: 2014/10/24
Report #: R1671148
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B493282

Received: 2014/10/16, 11:15

Sample Matrix: Filter
Samples Received: 32

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	32	N/A	2014/10/23	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

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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 #: B493282
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KW4933	KW4934	KW4935	KW4936	KW4937		
Sampling Date		2014/09/08	2014/09/14	2014/09/20	2014/09/26	2014/10/02		
	Units	PM2.5 RP15500	PM2.5 RP82070	PM2.5 RP27293	PM2.5 RP919	PM2.5 RP13060	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	<3	<3	9	5	3	3	7689967
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RDL = Reportable Detection Limit

Maxxam ID		KW4938	KW4939	KW4945	KW4946	KW4947		
Sampling Date		2014/09/08	2014/09/14	2014/09/20	2014/09/26	2014/10/02		
	Units	PM2.5 RP17880	PM2.5 RP10082	PM2.5 RP4234	PM2.5 RP22209	PM2.5 RP852	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	204	47	33	153	198	3	7689967
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RDL = Reportable Detection Limit

Maxxam ID		KW4948	KW4949	KW4950	KW4951	KW4952	KW4953		
Sampling Date		2014/09/08	2014/09/14	2014/09/20	2014/09/26	2014/10/02	2014/09/08		
	Units	PM10 RP4214	PM10 RP10078	PM10 RP18848	PM10 RP877	PM10 RP9904	PM10 RP22200	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	398	352	226	391	317	138	3	7689967
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RDL = Reportable Detection Limit

Maxxam ID		KW4954	KW4955	KW4961	KW4962	KW4963	KW4964		
Sampling Date		2014/09/14	2014/09/20	2014/09/26	2014/10/02	2014/09/08	2014/09/14		
	Units	PM10 RP85911	PM10 RP10063	PM10 RP15485	PM10 RP10349	TSP RP13792	TSP RP865	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	325	38	163	1410	16	311	3	7689967
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RDL = Reportable Detection Limit

Maxxam ID		KW4965	KW4966	KW4967	KW4968	KW4969	KW4970		
Sampling Date		2014/09/20	2014/09/26	2014/10/02	2014/09/08	2014/09/14	2014/09/20		
	Units	TSP RP17833	TSP RP90554	TSP RP20670	TSP RP16082	TSP RP1563	TSP RP15553	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	84	184	484	66	412	83	3	7689967
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RDL = Reportable Detection Limit

Maxxam Job #: B493282
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		KW5195	KW5196		KW5239	KW5240		
Sampling Date		2014/09/26	2014/10/02					
	Units	TSP RP91292	TSP RP15546	QC Batch	TRAVEL BLANK RP22621	LAB BLANK	RDL	QC Batch
PM2.5/10								
Particulate Matter	ug/filter	135	2610	7689967	20	<3	3	7689968
RDL = Reportable Detection Limit								

Maxxam Job #: B493282
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B493282
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

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. #: 90762
Your Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/10/24
Report #: R1670998
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B493174
Received: 2014/10/16, 09:27

Sample Matrix: Air
Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/10/21	2014/10/24	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/10/21	2014/10/21	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, Customer Service

Email: LManchak@maxxam.ca

Phone# (780) 378-8500

=====

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Maxxam Job #: B493174
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KW4461	KW4462		KW4463	
Sampling Date		2014/09/07 14:50	2014/09/07 14:50			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.2	MISSING	0.1		7686617
NO2	ppm				0.06	7686620
RDL = Reportable Detection Limit						

Maxxam Job #: B493174
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B493174
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7686617	SS6	Spiked Blank	Calculated NO2	2014/10/21		97	%	90 - 110
7686617	SS6	Method Blank	Calculated NO2	2014/10/21	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B493174
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

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Your P.O. #: 90762
Your Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/10/24
Report #: R1670997
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B493162
Received: 2014/10/16, 09:10

Sample Matrix: Air
Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/10/20	2014/10/20	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/10/20	2014/10/20	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/10/20	2014/10/20	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, Customer Service

Email: LManchak@maxxam.ca

Phone# (780) 378-8500

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Maxxam Job #: B493162
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		KW4413	KW4414	KW4415	KW4416		
Sampling Date		2014/09/07	2014/09/07	2014/09/07	2014/09/07		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	31	31	31	31	1	7684495
Dustfall Determination							
Total Dustfall	mg	21	20	11	11	1	7684492
Total Dustfall (30 day)	mg/cm2/30day	0.249	0.231	0.133	0.124	0.001	7684493
Total Fixed Dustfall	mg	18	16	7	9	1	7684492
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.216	0.185	0.083	0.107	0.001	7684493
RDL = Reportable Detection Limit							

Maxxam Job #: B493162
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B493162
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7684492	SSZ	Method Blank	Total Dustfall	2014/10/20	<1		mg	
			Total Fixed Dustfall	2014/10/20	<1		mg	
7684492	SSZ	RPD [KW4413-01]	Total Dustfall	2014/10/20	6.5		%	N/A
			Total Fixed Dustfall	2014/10/20	14		%	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.

Maxxam Job #: B493162
Report Date: 2014/10/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/09/07 - 2014/10/08
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Your P.O. #: 90762
Your Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/11/24
Report #: R1688478
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B4A3922

Received: 2014/11/14, 13:28

Sample Matrix: Air
Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2014/11/19	2014/11/24	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2014/11/19	2014/11/19	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 #: B4A3922
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		LD4362	LD4363		LD4364	
Sampling Date		2014/10/08 15:50	2014/10/08 16:53			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.5	2.1	0.1		7724365
NO2	ppm				0.04	7724368
RDL = Reportable Detection Limit						

Maxxam Job #: B4A3922
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B4A3922
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7724365	SS6	Spiked Blank	Calculated NO2	2014/11/19		94	%	90 - 110
7724365	SS6	Method Blank	Calculated NO2	2014/11/19	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B4A3922
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Your P.O. #: 90762
Your Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/11/24
Report #: R1688497
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B4A3929

Received: 2014/11/14, 13:34

Sample Matrix: Air
Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/11/24	2014/11/24	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/11/24	2014/11/24	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/11/24	2014/11/24	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

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Maxxam Job #: B4A3929
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		LD4396		LD4397	LD4398		LD4399		
Sampling Date		2014/10/08		2014/10/08	2014/10/08		2014/10/08		
	Units	1	RDL	2	3	RDL	4	RDL	QC Batch
Industrial									
Exposure	days	32	1	32	32	1	32	1	7729858
Dustfall Determination									
Total Dustfall	mg	81	3	16	12	2	10	1	7729855
Total Dustfall (30 day)	mg/cm2/30day	0.930	0.003	0.179	0.138	0.002	0.115	0.001	7729856
Total Fixed Dustfall	mg	84	3	16	13	2	13	1	7729855
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.964	0.003	0.179	0.152	0.002	0.149	0.001	7729856
RDL = Reportable Detection Limit									

Maxxam Job #: B4A3929
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B4A3929
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7729855	SSZ	Method Blank	Total Dustfall	2014/11/24	<1		mg	
			Total Fixed Dustfall	2014/11/24	<1		mg	
7729855	SSZ	RPD [LD4396-01]	Total Dustfall	2014/11/24	0		%	N/A
			Total Fixed Dustfall	2014/11/24	0		%	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.

Maxxam Job #: B4A3929
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: 2014/10/08 - 2014/11/09
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 90762
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 J0Y 1C0

Report Date: 2014/11/24
Report #: R1688463
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B4A3910

Received: 2014/11/14, 13:15

Sample Matrix: Filter
Samples Received: 32

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	32	N/A	2014/11/21	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, Customer Service

Email: LManchak@maxxam.ca

Phone# (780) 378-8500

=====

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Maxxam Job #: B4A3910
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		LD4288	LD4289	LD4290	LD4291	LD4292		
Sampling Date		2014/10/08	2014/10/14	2014/10/20	2014/10/26	2014/11/01		
	Units	PM2.5 RP10346	PM2.5 RP9948	PM2.5 RP89937	PM2.5 RP2875	PM2.5 RP84094	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	25	16	7	19	6	3	7727639
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RDL = Reportable Detection Limit

Maxxam ID		LD4293	LD4294	LD4295	LD4296	LD4297		
Sampling Date		2014/10/08	2014/10/14	2014/10/20	2014/10/26	2014/11/01		
	Units	PM2.5 RP92715	PM2.5 RP9908	PM2.5 RP4242	PM2.5 RP10325	PM2.5 RP87500	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	153	11	23	221	125	3	7727639
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RDL = Reportable Detection Limit

Maxxam ID		LD4298	LD4299	LD4300	LD4301	LD4302	LD4303		
Sampling Date		2014/10/08	2014/10/14	2014/10/20	2014/10/26	2014/11/01	2014/10/08		
	Units	PM10 RP15242	PM10 RP1582	PM10 RP889	PM10 RP892	PM10 RP9946	PM10 RP10071	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	312	32	23	250	221	111	3	7727639
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RDL = Reportable Detection Limit

Maxxam ID		LD4304	LD4305	LD4306	LD4307	LD4308	LD4309		
Sampling Date		2014/10/14	2014/10/20	2014/10/26	2014/11/01	2014/10/08	2014/10/14		
	Units	PM10 RP15507	PM10 RP54427	PM10 RP22202	PM10 RP17814	TSP RP915	TSP RP872	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	20	24	226	429	149	45	3	7727639
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RDL = Reportable Detection Limit

Maxxam ID		LD4310	LD4311	LD4312	LD4313	LD4314	LD4315		
Sampling Date		2014/10/20	2014/10/26	2014/11/01	2014/10/08	2014/10/14	2014/10/20		
	Units	TSP RP15503	TSP RP895	TSP RP22216	TSP RP22668	TSP RP27284	TSP RP13258	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	732	434	633	346	115	1010	3	7727639
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RDL = Reportable Detection Limit

Maxxam Job #: B4A3910
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		LD4316	LD4317		LD4318	LD4319		
Sampling Date		2014/10/26	2014/11/01					
	Units	TSP RP28672	TSP RP90576	QC Batch	TRAVEL BLANK RP15527	LAB BLANK	RDL	QC Batch
PM2.5/10								
Particulate Matter	ug/filter	460	802	7727639	<3	10	3	7727640
RDL = Reportable Detection Limit								

Maxxam Job #: B4A3910
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B4A3910
Report Date: 2014/11/24

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

VALIDATION SIGNATURE PAGE

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Your P.O. #: 90762
Your Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2014/12/31
Report #: R1769919
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B4B5020

Received: 2014/12/19, 10:25

Sample Matrix: Air
Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2014/12/31	2014/12/31	PTC SOP-00180	
Total & Fixed Dustfall	4	2014/12/31	2014/12/31	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2014/12/31	2014/12/31	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

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Levi Manchak, Customer Service

Email: LManchak@maxxam.ca

Phone# (780) 378-8500

=====

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Maxxam Job #: B4B5020
Report Date: 2014/12/31

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		LK2440	LK2441	LK2442	LK2443		
Sampling Date		2014/11/09	2014/11/09	2014/11/09	2014/11/09		
	Units	1	2	3	4	RDL	QC Batch
Industrial							
Exposure	days	35	35	35	35	1	7767812
Dustfall Determination							
Total Dustfall	mg	20	5	15	<1	1	7767809
Total Dustfall (30 day)	mg/cm2/30day	0.213	0.051	0.162	<0.001	0.001	7767810
Total Fixed Dustfall	mg	20	<1	12	<1	1	7767809
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.213	0.007	0.125	<0.001	0.001	7767810
RDL = Reportable Detection Limit							

Maxxam Job #: B4B5020
Report Date: 2014/12/31

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B4B5020
Report Date: 2014/12/31

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

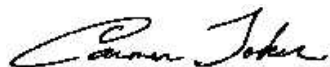
QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7767809	SSZ	Method Blank	Total Dustfall	2014/12/31	<1		mg	
			Total Fixed Dustfall	2014/12/31	<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								

Maxxam Job #: B4B5020
Report Date: 2014/12/31

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

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. #: 90762
Your Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU

Attention:MEADOWBANK ENVIRONMENT

Agnico Eagle Mines Ltd.
Meadowbank Division
10200, Route du Preissac
Rouyn-Noranda, QC
CANADA J0Y 1C0

Report Date: 2015/01/09
Report #: R1777694
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B4B5015

Received: 2014/12/19, 10:22

Sample Matrix: Air
Samples Received: 3

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
NO2 Passive Analysis (1)	2	2015/01/08	2015/01/09	PTC SOP-00148	Passive NO2 in ATM
Raw NO2 Passive Analysis	1	2015/01/08	2015/01/08	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 #: B4B5015
Report Date: 2015/01/09

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		LK2409	LK2410		LK2411	
Sampling Date		2014/11/09 11:21	2014/11/09 14:50			
	Units	NO2: 1	NO2: 2	RDL	NO2: BLANK	QC Batch
Passive Monitoring						
Calculated NO2	ppb	0.7	2.6	0.1		7773372
NO2	ppm				0.06	7773375
RDL = Reportable Detection Limit						

Maxxam Job #: B4B5015
Report Date: 2015/01/09

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B4B5015
Report Date: 2015/01/09

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	Units	QC Limits
7773372	SS6	Spiked Blank	Calculated NO2	2015/01/08		97	%	90 - 110
7773372	SS6	Method Blank	Calculated NO2	2015/01/08	<0.1		ppb	
<p>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.</p> <p>Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.</p>								

Maxxam Job #: B4B5015
Report Date: 2015/01/09

Agnico Eagle Mines Ltd.
Client Project #: 2014/11/09 - 2014/12/14
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

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. #: 90762
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 J0Y 1C0

Report Date: 2015/01/08
Report #: R1776688
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B4B5008

Received: 2014/12/19, 10:13

Sample Matrix: Filter
Samples Received: 26

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mass Determination(ug/filter)	26	N/A	2015/01/08	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

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Maxxam Job #: B4B5008
Report Date: 2015/01/08

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

RESULTS OF CHEMICAL ANALYSES OF FILTER

Maxxam ID		LK2367	LK2368	LK2369	LK2370	LK2371		
Sampling Date		2014/11/07	2014/11/13	2014/11/19	2014/11/25	2014/11/07		
	Units	PM2.5 RP15062	PM2.5 RP28643	PM2.5 RP19960	PM2.5 RP10069	PM2.5 RP905	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	16	4	25	26	<3	3	7773351
--------------------	-----------	----	---	----	----	----	---	---------

RDL = Reportable Detection Limit

Maxxam ID		LK2372	LK2373	LK2374	LK2377	LK2378		
Sampling Date		2014/11/13	2014/11/19	2014/11/25	2014/11/07	2014/11/13		
	Units	PM2.5 RP10060	PM2.5 RP76151	PM2.5 RP27511	PM10 RP28670	PM10 RP29749	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	169	55	61	614	48	3	7773351
--------------------	-----------	-----	----	----	-----	----	---	---------

RDL = Reportable Detection Limit

Maxxam ID		LK2379	LK2380	LK2381	LK2382	LK2383		
Sampling Date		2014/11/19	2014/11/25	2014/11/07	2014/11/13	2014/11/19		
	Units	PM10 RP24907	PM10 RP76202	PM10 RP9940	PM10 RP27721	PM10 RP9906	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	109	51	10	303	61	3	7773351
--------------------	-----------	-----	----	----	-----	----	---	---------

RDL = Reportable Detection Limit

Maxxam ID		LK2384	LK2387	LK2388	LK2389	LK2390	LK2391		
Sampling Date		2014/11/25	2014/11/07	2014/11/13	2014/11/19	2014/11/25	2014/11/07		
	Units	PM10 RP87482	TSP RP27513	TSP RP920	TSP RP22213	TSP RP29748	TSP RP2880	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	28	468	78	111	65	1590	3	7773351
--------------------	-----------	----	-----	----	-----	----	------	---	---------

RDL = Reportable Detection Limit

Maxxam ID		LK2392	LK2393	LK2394	LK2397	LK2398		
Sampling Date		2014/11/13	2014/11/19	2014/11/25				
	Units	TSP RP2882	TSP RP90582	TSP RP28644	TRAVEL BLANK RP15517	LAB BLANK	RDL	QC Batch

PM2.5/10

Particulate Matter	ug/filter	937	230	117	11	5	3	7773351
--------------------	-----------	-----	-----	-----	----	---	---	---------

RDL = Reportable Detection Limit

Maxxam Job #: B4B5008
Report Date: 2015/01/08

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

GENERAL COMMENTS

TSP RP2882 (LK2392) received to the Lab with visible particulate on it. SS
TSP RP90582 (LK2393) received to the Lab with rips on the filter. SS

Results relate only to the items tested.

Maxxam Job #: B4B5008
Report Date: 2015/01/08

Agnico Eagle Mines Ltd.
Client Project #: PM2.5/10/TSP
Site Location: BAKER LAKE, NU
Your P.O. #: 90762

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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Appendix C

Incinerator Stack Sampling Tests Report

Report Stack sampling tests



Stack sampling tests Outlet of the incinerator

Presented to: Agnico-Eagle Mines Ltd.

Our Reference: R14-034R01 (14-076-279748)

Date: August 4, 2014

Copy: 1 of 1

Version No.: 1

Page 1

Revision History

Version No:	Date of ré – issue:
Reviewed by:	Approved by:
Reason for the revision:	

Version No:	Date of ré – issue:
Reviewed by:	Approved by:
Reason for the revision:	

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1 SUMMARY

Exova Canada Inc. was requested by **Agnico-Eagle Mines Ltd. – Meadowbank Division** to sample atmospheric emissions at the outlet of the incinerator for its plant located in Baker Lake, Nunavut at the following address.

Agnico-Eagle Mines Ltd. - Meadowbank Division

P.O. Box 540,
Baker Lake, Nunavut
X0C 0A0

Contact: Mr. Jeffrey Pratt, Environmental coordinator
Telephone: (819) 759-3555, ext. 6728
Cell: (819) 856-1475
Email: Jeffrey.pratt@agnico-eagle.com

1.1 Purposes of the study

The tests were done to demonstrate the performance of the incinerator to meet the standards for mercury (Hg) and dioxins and furans (PCDD/F).

Field testing was carried out from July 11 to July 13, 2014 by a team of two technicians. Stack gas properties such as velocity, volumetric flow rates, temperature, moisture content, molecular weight and pressure were all measured concurrently to stack sampling. Three runs were performed for each contaminant with the exception that four grab samples were taken for the NO_x. The test matrix is shown in the following table.

Table 1.1-1 – Overall Test Matrix

Pollutants	Sampling methods
Particulate matter (PM)	EPS 1/RM/8
Anion - Hydrogen chloride (HCl)	EPS 1/RM/1
Metals	EPA 29
SVOC (PCDD/F)	EPS 1/RM/2
Nitrogen oxides (NO _x)	EPS 1-AP-77-3

The list of metals includes Al, Sb, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Hg, Mo, Ni, P, K, Se, Si, Ag, Na, Sr, Te, Tl, Sn, Ti, U, V, Zn.

The manual sampling procedure for the particulate matter / anion / metals (PAM) test and the semi-volatile organic compounds (SVOC) test were as shown in table 1.1-2 hereafter.

Table 1.1-2 – Sampling procedures

Sources	# of sampling points (total)	# of sampling points (per traverse)	Sampling time per point (min.)	Total sampling time (min)	Notes
PAM # 1, 2, 3	36	18	5	180	Isokinetic adjustments each 5 minutes
SVOC # 1, 2, 3	36	18	5	180	Isokinetic adjustments each 5 minutes

1.2 Summary of results

All the tests results are summarized in the summary tables appearing below and on the next page and represent the average of three runs with the exception for the NO_x results that represent the average of four grab samples. Complete results of the sampling program are presented in section 5.0 of this report.

A comprehensive internal Quality Assurance/Quality Control (QA/QC) plan was designed and implemented by Exova regarding the gaseous emissions. The quality of the sampling data and results is good for all measurements. All the data are consistent and reliable.

The operating conditions were maintained stable throughout each day of the tests.

All computer print-outs, field data, analytical results and calibration reports are presented in appendix # 1.

For this project, the applicable standards are shown below with the tests results. The applicable standard for dioxins and furans (PCDD/F) was met during each test. The applicable standard for mercury (Hg) was met only during test # 3.

Table 1.2-1 – Summary of results

Contaminants	Average test results	Standards
Mercury (Hg)	64.09 µg / Rm ³ @ 11 % v/v O ₂	20 µg / Rm ³ @ 11 % v/v O ₂
Dioxins and furans (PCDD/F)	53.6 pg TEQ / Rm ³ @ 11 % v/v O ₂	80 pg TEQ / Rm ³ @ 11 % v/v O ₂

R: Reference conditions, 25 °C, 101.3 kPa, dry basis.

Table 1.2-2 – Summary of results (Cont'd)

Parameters		PAM tests	SVOC tests	NO _x tests
Concentrations				
PM	(mg/Rm ³)	28.2	---	---
HCl	(mg/Rm ³)	29.7	---	---
Hg	(µg/Rm ³)	29.9	---	---
PCDD/F	(pg/Rm ³ TEQ)	---	24.1	---
NO _x	(mg/Rm ³ - eq. NO ₂)	---	---	< 5.6
Emission rates				
PM	(kg/h)	0.202	---	---
HCl	(kg/h)	0.211	---	---
Hg	(mg/h)	210.312	---	---
PCDD/F	(ng/h TEQ)	---	163.8	---
NO _x	(kg/h – eq. NO ₂)	---	---	< 0.038
Stack gas properties				
Velocity	(m/s)	7.1	6.7	---
Actual flow rate	(m ³ /h)	18591	17706	---
Reference flow rate	(Rm ³ /h)	7183	6848	6840
Temperature	(°C)	465	468	---
Moisture	(% v/v, wet basis)	4.6	4.2	---
Static pressure	(inch H ₂ O)	- 0.10	- 0.10	---
O ₂	(% v/v, dry basis)	16.54	16.54	---
CO ₂	(% v/v, dry basis)	3.11	3.11	---
CO	(ppmv, dry basis)	3.7	3.7	---
Average isokineticity (%)		98.8	95.7	---

R : Reference conditions, 25 °C, 101.3 kPa and dry basis.

2 INTRODUCTION

Exova Canada Inc. was requested by **Agnico-Eagle Mines Ltd. – Meadowbank Division** to sample the atmospheric emissions at the outlet of an incinerator for its plant located in Baker Lake, Nunavut.

The report describes the purposes of the study, the field work schedule, the sampling location and the sampling methods employed. All the results are summarized in table form. All field data, analytical results and calibration reports are appended.

2.1 Objective and test matrix

A comprehensive stack testing program was adopted by Exova to determine qualitatively and quantitatively the contents of the stack emissions. Table # 2.1-1 shows the parameters measured during the test program. Three runs were performed for each contaminant during the sampling program with the exception that four grab samples were taken for the NO_x.

Table 2.1-1 – Overall Test Matrix

Pollutants	Sampling methods
Particulate matter (PM)	EPS 1/RM/8
Anion - Hydrogen chloride (HCl)	EPS 1/RM/1
Metals	EPA 29
SVOC (PCDD/F)	EPS 1/RM/2
Nitrogen oxides (NO _x)	EPS 1-AP-77-3

The list of metals includes Al, Sb, As, Ba, Be, Bi, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Li, Mg, Mn, Hg, Mo, Ni, P, K, Se, Si, Ag, Na, Sr, Te, Tl, Sn, Ti, U, V, Zn.

2.2 Schedule of test work

The sampling program was carried out from July 11 to July 13, 2014 by a team of two technicians. Table # 2.2-1 appearing in this section shows the test schedule.

Table 2.2-1 – Test schedule

Source	Date	Time	Tests
Outlet of the incinerator	July 11, 2014	12:59 – 16:35	PAM # 1 & SVOC # 1
	July 12, 2014	11:22 – 16:00	PAM # 2 & SVOC # 2
	July 12, 2014	17:34 – 17:36	NO _x # 1, 2
	July 13, 2014	09:48 – 14:18	PAM # 3 & SVOC # 3
	July 13, 2014	15:15 – 18:30	NO _x # 3, 4

2.3 Project personnel

The following is a list of the direct contributors to this test program.

Table 2.3-1 – Key personnel involved in the project

Name	Experience and responsibilities
------	---------------------------------

Agnico-Eagle Mines Ltd.

Mr. Jeffrey Pratt – Environmental coordinator

- Project coordinator.

Exova Canada Inc.

Mr. Simon Demers, Technician

- SVOC and NO_x sampling.

Mr. Sylvain Lapointe, Technician

- PAM sampling.

Mr. Christian St-Pierre, Chemist

- Analyses of PM and NO_x samples.

Mr. Geneviève Sévigny, Chemist

- Analyses of HCl and metals samples.

Mr. Pierre Duguay, P.Eng. – Supervisor

- Report writing.

Mr. Claude Bélanger, Chemist – Operations manager

- Report verification.

Agat Laboratories

Mr. Marc-André Desjardins – Chemist

- Analyses of SVOC samples.

2.4 Process operating conditions

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.

2.5 Applicable standards

For this project, the applicable standards are shown below.

Table 2.5-1 – Applicable standards

Contaminants	Standards
Mercury (Hg)	20 µg / Rm ³ @ 11 % v/v O ₂
Dioxins and furans (PCDD/F)	80 pg TEQ / Rm ³ @ 11 % v/v O ₂

R: Reference conditions, 25 °C, 101.3 kPa, dry basis.

3 METHODS

3.1 Sampling methods

The following sections give more details on the stack sampling methods used during the test program and their application.

Table 3.1-1 – Sampling methods

Parameters	Methods	Sampling duration (min.)
Manual sampling methods		
Temperature	Thermometer or thermocouple	Ponctual
Gas flow	EPS 1/RM/8, method B – Environment Canada	Ponctual
O ₂ , CO ₂ , CO	EPS 1/RM/8, method C – Environment Canada	Ponctual
Moisture content	EPS 1/RM/8, method D – Environment Canada	Ponctual
Particulate matter (PM)	EPS 1/RM/8, method E – Environment Canada	180
Anions (HCl)	EPS 1/RM/1 – Environment Canada	
Metals	Method 29 - USEPA	
SVOC	EPS 1/RM/2 – Environment Canada	180
NO _x	EPS 1-AP-77-3 – Environment Canada	2

3.2 Sampling acceptance criteria

Isokinetic sampling means that the linear velocity of the stack gases entering the nozzle of the sampling probe is equal to the stack gas velocity at the sampling point. Acceptance criteria for a sampling run related to the reference methods that are used are as in the following table.

Table 3.2-1 – Sampling validity criteria

Parameters / Methods	Acceptance criteria
<u>PM / Anion / Metals / SPE 1/RM/8 – Environment Canada & 29 - USEPA</u>	
	<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 ➤ Minimum sampling duration : 120 minutes ➤ Minimum sampled volume : 2.80 Rm³
<u>SVOC / SPE 1/RM/2 – Environment Canada</u>	
	<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 ➤ Minimum sampling duration : 180 minutes ➤ Minimum sampled volume : 3.00 Rm³

3.3 Particulate matter (PM), hydrogen chloride and metals

Particulate matter (PM), hydrogen chloride (HCl) and metals were 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 Environment Canada EPS 1/RM/1 sampling method entitled: "Reference methods for source testing: measurement of releases of hydrogen chloride from stationary sources" and USEPA method 29 entitled "Metals emissions from stationary sources" in order to allow for anion and metals sampling. Sampling lasted 180 minutes and a minimal volume of at least 2.80 m³ was sampled for each run. Three PM / HCl / metals tests were conducted simultaneously to the SVOC tests during each run.

Particulate matter (PM), anion (HCl), and metals (including mercury) are sampled isokinetically using a single sampling train. This is recognized as the standard method for obtaining representative samples of particulate matter.

Two complete sampling trains were prepared for this project and were transported to the worksite. Sampling nozzles, pitot tubes, dry gas meters and orifice flow meters were calibrated in accordance with the Environment Canada testing code. A standard Method 5 sampling module was used, with a 5 foot probe with a glass liner. The sampling train was as follows.

Table 3.3-1 – Main components of the sampling system – PM / HCl / metals

Components	Description
<u>Sampling probe</u>	
<ul style="list-style-type: none"> ➤ A stainless steel nozzle of a precisely measured diameter to allow isokinetic sampling ; ➤ a stainless steel water-cooled probe with a heated glass liner 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. 	
<u>Sampling train</u>	
<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 ; ➤ eight impingers placed in series and containing : <ul style="list-style-type: none"> ➤ # 1 and # 2: 100 ml demineralized water ; ➤ # 3 and # 4: 100 ml HNO₃ (5%) / H₂O₂ (10%) solution ; ➤ # 5 : empty ; ➤ # 6 and # 7 : 100 ml KMnO₄ (4%) / H₂SO₄ (10%) solution ; ➤ # 8: 200 g silica gel ; ➤ the impingers are placed in an ice bath to condense all the flue gas moisture. 	
<u>Control unit</u>	
<ul style="list-style-type: none"> ➤ A diaphragm leak free vacuum pump ; ➤ a dry gas meter ; ➤ an orifice flow meter ; ➤ probe and oven temperature controllers ; ➤ temperature display (stack, gas meter, impingers, resin). 	

At the end of each sampling run the sampling train was brought back to the field laboratory to process with sample recovery. The procedure followed for sample recovery is as in the following table.

Table 3.3-2 – Sample recovery – PM / HCl / metals

Components	Description
<u>Nozzle and probe</u>	
<ul style="list-style-type: none"> ➤ The nozzle and probe are rinsed and brushed with acetone ; ➤ the rinses are kept in polyethylene with a Teflon lid ; ➤ the nozzle and probe are rinsed and brushed with the HNO₃ 0.1 N solution ; ➤ the rinses are kept in another polyethylene container with a Teflon lid. 	
<u>Filter</u>	
<ul style="list-style-type: none"> ➤ The filter is placed in a plastic petri dish ; ➤ the pieces of the filter stuck to the rubber are carefully replaced with the filter. 	
<u>Impingers # 1 and # 2</u>	
<ul style="list-style-type: none"> ➤ The volume of solution is measured for moisture content determination ; ➤ the solution is transferred in a polyethylene container with a Teflon lid ; ➤ the glassware is rinsed with demineralized water ; ➤ the rinses are added to the same container in which the impingers solution have been placed ; ➤ the solution is acidified. 	
<u>Impingers # 3 and # 4</u>	
<ul style="list-style-type: none"> ➤ The volume of the solution is measured for moisture content determination ; ➤ the solution is transferred in a polyethylene container with a Teflon lid ; ➤ the glassware is rinsed with the HNO₃ solution ; ➤ the rinses are added to the same container in which the impingers solution have been placed ; ➤ the total volume of the solution is noted. 	
<u>Impingers # 5, # 6 and # 7</u>	
<ul style="list-style-type: none"> ➤ The volume of the solution is measured for moisture content determination ; ➤ the solution is transferred in an amber glass container with a Teflon lid ; ➤ the glassware is rinsed with the acidified permanganate solution ; ➤ the rinses are added to the same container in which the impingers solution have been placed ; ➤ the total volume of the solution is noted. 	
<u>Impinger # 8</u>	
<ul style="list-style-type: none"> ➤ The silica gel is weighted in order to determine the moisture content. 	

Analyses of the different components of the sampling train were done as in the following table.

Exova performed the analyses for particulate matter on the probe wash and on the filter. Exova was responsible as well for the metals analyses.

Table 3.3-3 – Samples analyses – PM / metals

Components	Description
<u>Nozzle and probe</u>	
<ul style="list-style-type: none"> ➤ Washing of the nozzle and probe are evaporated to dryness ; ➤ The residue's weight is noted constitutes one part of the particulate matter. 	
<u>Filter</u>	
<ul style="list-style-type: none"> ➤ The filter is placed in a dessiccator for a period of 24 hours ; ➤ the filter is weighted and the weight is noted; ➤ the residue constitutes another part of the particulate matter. 	
<u>Particulate matter and HNO₃ 0.1 N washings of probe-nozzle and filter holder front half</u>	
<ul style="list-style-type: none"> ➤ particulate matter are combined with the HNO₃ washings for digestion and analysed for metals. 	
<u>Impingers # 1 and # 2</u>	
<ul style="list-style-type: none"> ➤ Part of the acidified solution is taken and analysed for HCl and metals content. 	
<u>Impingers # 3 and # 4</u>	
<ul style="list-style-type: none"> ➤ Part of the HNO₃ solution is taken and analysed for metals content. 	
<u>Impingers # 5, # 6 and # 7</u>	
<ul style="list-style-type: none"> ➤ Part of the acidified permanganate solution is taken and analysed for mercury content. 	
<u>Impinger # 8</u>	
<ul style="list-style-type: none"> ➤ No analysis is performed on this component. 	

3.4 Semi-volatile organic compounds (SVOC)

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 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). Sampling lasted 180 minutes and a minimal volume of at least 3.00 m³ were sampled for each run. At the outlet of the incinerator, three SVOC tests were conducted.

Five (5) train glassware sets were cleaned and one common rinse was analyzed for proofing. Three (3) of these trains were used for testing, one (1) was used as field blank and the remaining one was kept as spares.

A standard Method 5 sampling module was used, with a 5 foot borosilicate lined (proofed) probe. Sampling nozzles, pitot tubes, dry gas meters and orifice flow meters are calibrated in accordance with the EPS testing code.

Sampling train was assembled every day for the test to be held on the same day. Two rinses (Acetone & Hexane – 3 times each) were done before each test. The sampling train was as in the following.

Table 3.4-1 – Main components of the sampling system – SVOC

Components	Description
<u>Sampling probe</u>	
<ul style="list-style-type: none"> ➤ A stainless steel nozzle of a precisely measured diameter to allow isokinetic sampling ; ➤ a stainless steel water-cooled probe with a heated glass liner 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. 	
<u>Sampling train</u>	
<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 ; ➤ a condenser ; ➤ a XAD-2 resin cartridge ; ➤ a condensate trap ; ➤ three impingers placed in series and containing : <ul style="list-style-type: none"> ➤ # 1: 100 ml ethylene glycol ; ➤ # 2 : empty ; ➤ # 3: 200 g silica gel ; ➤ the impingers are placed in an ice bath to condense all the flue gas moisture. 	
<u>Control unit</u>	
<ul style="list-style-type: none"> ➤ A diaphragm leak free vacuum pump ; ➤ a dry gas meter ; ➤ an orifice flow meter ; ➤ probe and oven temperature controllers ; ➤ temperature display (stack, gas meter, impingers, resin). 	

At the end of each sampling run the sampling train was brought back to the field laboratory to process with sample recovery. The procedure followed for sample recovery is as in the following table. Except for the filter, all the sampling train's components were first rinsed three times with acetone and then three times with hexane. After recovery was completed, all samples were clearly documented in lab journals, with each sample container clearly labelled, and stored in a refrigerator.

Along with one of the three SVOC tests, a blank train has been taken to the stack sampling site and left untouched for the duration of the test. At the end of the test, a volume of ambient air equal to the sum of all leak check volumes during the SVOC test was run through the blank train, according to the requirements of reference method EPS 1/RM/2.

The blank train was recovered in the field laboratory in the same manner as the compliance test trains. The field blank train has been analysed by Agat. Because they each constitute a part of the blank train, solvents, reagents, filters and the XAD-2 resin were not sampled and analysed as individual blanks. The train analysis was performed as per methods EPS 1/RM/3, EPS 1/RM/23 and NITEP/Mid Connecticut Combustion Test Methodology for Organic Analysis.

Table 3.4-2 – Sample recovery – SVOC

Components	Description
<u>Nozzle, probe and front half of filter holder</u>	
<ul style="list-style-type: none"> ➤ Each component is rinsed three times and brushed with acetone and then three times with hexane ; ➤ all the rinses are kept in amber glass container with a Teflon lid. 	
<u>Filter</u>	
<ul style="list-style-type: none"> ➤ The filter is carefully removed from filter holder and deposited on a pre-cleaned aluminum foil ; ➤ the pieces of the filter stuck to the rubber are carefully replaced with the filter ; ➤ the filter is folded in half and placed in a pre-cleaned glass petri dish. 	
<u>Back half of filter holder and condenser</u>	
<ul style="list-style-type: none"> ➤ The condenser is weighted in order to determine the moisture content ; ➤ each component is soaked 5 minutes each with acetone and hexane ; ➤ each component is rinsed three times with acetone and then three times with hexane ; ➤ all the rinses are kept in amber glass container with a Teflon lid. 	
<u>Resin cartridge</u>	
<ul style="list-style-type: none"> ➤ The cartridge is weighted in order to determine the moisture content ; ➤ both ends of the cartridge are sealed ; ➤ the whole tube is wrapped with an aluminum foil. 	
<u>Condensate trap and impinger # 1</u>	
<ul style="list-style-type: none"> ➤ Each component is weighted in order to determine the moisture content ; ➤ the solution of each container is transferred into a pre-cleaned amber glass bottle ; ➤ each component is rinsed three times each with HPLC water ; ➤ the rinses are added into the same container. 	
<u>All back half glassware excluding resin cartridge</u>	
<ul style="list-style-type: none"> ➤ Each component including connectors are rinsed three times each with acetone and hexane ; ➤ all the rinses are kept into a pre-cleaned glass amber bottle. 	
<u>Impingers # 2 and # 3</u>	
<ul style="list-style-type: none"> ➤ Each component is weighted in order to determine the moisture content. 	

Procedures in Environment Canada's Reports EPS 1/RM/3 and EPS 1/RM/23 were followed by Agat. All glassware was rinsed (with acetone and hexane) on site prior to usage, as per EPS 1/RM/2. SVOC samples were treated as one combined extract per test. Front and back halves of the sampling trains were not analyzed separately. The following analyses were done by the laboratory.

Table 3.4-3 – Samples analyses – SVOC

Components	Description
<u>Proofing</u>	
➤	1 analysis for PCDD/F (1 combined proof rinse for all 5 trains glassware, XAD resin + filters).
<u>Laboratory blank</u>	
➤	1 analysis as part of the lab internal quality control.
<u>Field blank</u>	
➤	1 analysis for PCDD/F.
<u>Samples</u>	
➤	3 analyses (1 analysis per train) for PCDD/F.

The proofing procedures detailed in Environment Canada's Report EPS 1/RM/2 entitled "Reference Method for Source Testing: Measurement of Releases of Selected Semi Volatile Organic Compounds from Stationary Sources" dated June 1989 were followed. These procedures have been carried out several times by the personnel assigned to this study.

Items cleaned by Exova: probe glass liners, all train glassware, petri dishes used for storing filters, XAD-2 traps and sample containers.

Items cleaned by Agat: XAD-2 resin, glass wool and filters.

All solvents and reagents used in this project were supplied by Exova except for the Amberlite XAD-2 resin and glass wool which were supplied by Agat. Exova's and Agat's last rinsings were combined to produce 1 final sample for proofing. One proofing analysis was carried out by Agat.

3.5 Nitrogen oxides (NO_x)

Nitrogen oxides (NO_x) were measured at the stack outlet of the incinerator. The test consisted of taking four grab samples of combustion gas. The sampling method used was Environment Canada EPS 1-AP-77-3. Sampling components are:

Probe liner material: Borosilicate;
 Filter: Glass wool at the probe tip;
 Flask (2 L): 25 ml of absorbing solution (H_2O_2 / H_2SO_4).

The glass wool used in the sampling train was discarded after the test. The stack gas stayed in contact with the absorbing solution in the flask overnight. All solvents and reagents used in this project were from a single batch. The NO_x present in the stack gas are converted to nitric acid by gas phase oxidation due to oxygen in the sample and the H_2O_2 / H_2SO_4 absorbing solution.

The NO_x sampling is not an isokinetic method. Each grab sample lasts about 2 minutes. If the gas stream at the stack is well mixed, the grab samples are then representative of the emissions at the time they are taken.

3.6 Gas molecular weight

Gas molecular weight was determined by measuring O_2 , CO_2 and CO 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".

All system's components in contact with the stack gas were made of stainless steel. The gas composition at the sampling site was measured by connecting the analyser to the exhaust of the control unit. Specifications of the analyser are as in the following table.

Table 3.6-1 – Specifications of the analyser used for gas molecular weight determination

Pollutant	O_2	CO_2	CO
Measuring principle	Electrochemical cell	Thermoconductivity cell	Electrochemical cell
Instrument	Nova 376	Nova 376	Nova 376
Measuring range	0 – 25 % v/v	0 – 20 % v/v	0 – 4 % v/v

3.7 Gas temperature, moisture content and flowrate

Gas temperature, flowrate, velocity and moisture content were measured at the sampling site 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.

4 SAMPLED SOURCE

4.1 Outlet of the incinerator

Sampling was conducted at the outlet of the incinerator. A description of the sampling location is shown below.

Table 4.1-1 – Outlet of the incinerator

Parameter	Value
Stack inside diameter at the sampling site	38.0"
Length of sampling ports	10.0"
No. of straight duct diameters upstream from the sampling ports	5.0 D
No. of straight duct diameters downstream of the sampling ports	2.0 D
No. of sampling traverses	2
Total no. of sampling points per sampling traverse	18
Total no. of sampling points per test	36
Sampling time per point (minutes)	5

4.2 Sampling equipment

The sampling equipment used for particulate matter (PM) / hydrogen chloride (HCl) / metals testing and for SVOC testing is described in the following tables.

Table 4.2-1 – Sampling equipment for PM / HCl / metals train

Parameter	Test # 1	Test # 2	Test # 3
Sampling module	10	10	10
Gas meter factor (γ)	0.9622	0.9622	0.9622
Orifice factor (K_o)	0.9304	0.9304	0.9304
Probe	2' E (eau)	2' E (eau)	2' E (eau)
Pitot factor (C_v)	0.785	0.785	0.785
Nozzle (inches)	0.498	0.498	0.498

Table 4.2-2 – Sampling equipment for SVOC train

Parameter	Test # 1	Test # 2	Test # 3
Sampling module	8	8	8
Gas meter factor (γ)	0.9751	0.9751	0.9751
Orifice factor (K_o)	0.7201	0.7201	0.7201
Probe	2' F (eau)	2' F (eau)	2' F (eau)
Pitot factor (C_v)	0.785	0.785	0.785
Nozzle (inches)	0.498	0.498	0.498

4.3 QA/QC report

The following tables show the quality assurance / quality control parameters applied during the test program. These parameters deal with the gas flow conditions at the sampling location, the sampling equipment/procedures employed and the isokineticity of the tests. The value of each parameter is compared to a quality acceptance criterion formulated in the reference sampling methods.

Table 4.3-1 – Gas flow conditions

Parameter	Actual			Quality criteria
Duct diameter (inches)	38.0			≥ 12.0
Sampling cross-section (ft ²)	7.88			≥ 0.78
No. of duct diam. upstream	5.0 D			$\geq 2.0 D$
No. of stack diam. downstream	2.0 D			$\geq 0.5 D$
No. of sampling traverses	2			2 or more
Cyclonic flow	0°			$\leq 15^\circ$
PM / HCl / metals tests	# 1	# 2	# 3	
Maximum stack gas velocity (ft/s)	26.5	26.6	27.4	≤ 100
Minimum stack gas velocity (ft/s)	18.4	19.3	18.1	≥ 10.0
Highest Ratio V_{max} / V_{min}	1.4	1.4	1.5	≤ 2.0
SVOC tests	# 1	# 2	# 3	
Maximum stack gas velocity (ft/s)	26.0	28.0	25.7	≤ 100
Minimum stack gas velocity (ft/s)	10.6	13.4	19.0	≥ 10.0
Highest Ratio V_{max} / V_{min}	2.5	2.1	1.4	≤ 2.0

All the quality criteria required by the reference sampling method were met except for the ratio V_{max} / V_{min} for the SVOC tests # 1 and 2. These deviations are acceptable since it was still possible to perform an isokinetic sampling using the same diameter for the nozzle.

Table 4.3-2 – Sampling equipment and procedures

PM / HCl / metals	Test # 1	Test # 2	Test # 3	Quality criteria
Filter enclosure temperature (°F)	250	250	250	248 ± 25
Probe temperature (°F)	250	250	250	248 ± 25
Maximum leak rate (cfm)	< 0.02	< 0.02	< 0.02	≤ 0.02
Nozzle diameter (in.)	0.498	0.498	0.498	≥ 0.188
Gas meter calibration factor	0.9622	0.9622	0.9622	0.95 ≤ γ ≤ 1.05
Sampling duration (min)	180	180	180	≥ 120
Gas sample volume (Rm ³)	3.794	3.540	3.621	≥ 2.80
SVOC	Test # 1	Test # 2	Test # 3	Quality criteria
Filter enclosure temperature (°F)	249	248	250	248 ± 25
Probe temperature (°F)	249	248	249	248 ± 25
Resin XAD-2 temperature (°F)	55	55	55	≤ 68
Maximum leak rate (cfm)	< 0.02	< 0.02	< 0.02	≤ 0.02
Nozzle diameter (in.)	0.498	0.498	0.498	≥ 0.188
Gas meter calibration factor	0.9751	0.9751	0.9751	0.95 ≤ γ ≤ 1.05
Sampling duration (min)	180	180	180	≥ 180
Gas sample volume (Rm ³)	3.449	3.349	3.290	≥ 3.00

All quality criteria required by the reference sampling method were met concerning the sampling equipment and procedures. No equipment failure, leaks or sample recovery problems were encountered during the testing program.

Table 4.3-3 – Isokineticity

PM / HCl / metals	Test # 1	Test # 2	Test # 3	Quality criteria
Average (%)	96.7	98.9	100.7	90 % ≤ Iso ≤ 110 %
> 110%	0 / 36	0 / 36	0 / 36	≤ 3 / 36
< 90%	0 / 36	0 / 36	0 / 36	
SVOC	Test # 1	Test # 2	Test # 3	Quality criteria
Average (%)	94.6	96.3	96.2	90 % ≤ Iso ≤ 110 %
> 110%	0 / 36	0 / 36	0 / 36	≤ 3 / 36
< 90%	0 / 36	0 / 36	0 / 36	

All quality criteria required by the reference sampling method were met concerning the isokineticity of the tests.

5 TABLES OF RESULTS

All the tests results are summarized in section 1.2 and represent the average of three runs with the exception for the NO_x results that represent the average of four grab samples.

Complete results for particulate matter (PM) and chlorhydric acid (HCl) are presented in table # 1. For metals, summary results are presented in table # 2 and detailed results are presented in tables 3 to 5.

For dioxins and furans (PCDD/F), summary results are presented in table # 6 and detailed results are presented in tables 7 to 9 with field blank results. The PCDD/PCDF tables of results give the analytical results in terms of international toxic equivalent (ITEQ) of the dioxin and furan congeners (expressed as 2, 3, 7, 8-T4CDD) as per method EPS 1/RM/2 requirements.

Results of PM / HCl / metals and SVOC include stack gas properties (velocity, flow, temperature, moisture, static pressure, molecular weight) measured during each test.

Complete results for nitrogen oxides (NO_x) are presented in table # 10.

- # 1 : Detailed results of particulate matter (PM) and HCl emissions ;
- # 2 : Summary results of metals emissions ;
- # 3 : Detailed results of metals emissions – test # 1 ;
- # 4 : Detailed results of metals emissions – test # 2 ;
- # 5 : Detailed results of metals emissions – test # 3 ;
- # 6 : Summary results of SVOC emissions ;
- # 7 : Detailed results of PCDD/F emissions – test # 1 ;
- # 8 : Detailed results of PCDD/F emissions – test # 2 ;
- # 9 : Detailed results of PCDD/F emissions – test # 3 ;
- # 10 : Detailed results of NO_x emissions.

The quality of the sampling data and results is good for all measurements. All the data are consistent and reliable.

The operating conditions were maintained stable throughout each day of the test program.

The applicable standard for dioxins and furans (PCDD/F) was met during each test. The applicable standard for mercury (Hg) was met only during test # 3.

All computer print-outs, field data, analytical results and calibration reports are presented in appendix # 1.

TABLE # 1
OUTLET OF INCINERATOR
SUMMARY OF ATMOSPHERIC EMISSIONS
PARTICULATE MATTER - ANIONS

Test Date Time	1 11-Jul-14 12:59 - 16:35	2 12-Jul-14 11:22 - 16:00	3 13-Jul-14 09:48 - 14:18	AVERAGE
WEIGHT OF SAMPLE				
Particulate matter (mg)	97.53	123.56	87.37	
HCl (mg)	82.07	141.92	98.94	
GAS SAMPLE VOLUME (Rm³)	3.794	3.540	3.621	
CONCENTRATIONS				
Particulate matter (mg/Rm ³)	25.7	34.9	24.1	28.2
Particulate matter (mg/Rm ³ @ 11 % O ₂)	72.5	71.4	50.5	64.8
HCl (mg/Rm ³)	21.6	40.1	27.3	29.7
HCl (ppmv)	14.5	26.9	18.3	19.9
EMISSION MASS FLOW RATES				
Particulate matter (kg/h)	0.196	0.242	0.169	0.202
HCl (kg/h)	0.165	0.278	0.191	0.211
STACK GAS PROPERTIES				
VELOCITY (m/s)	6.9	7.2	7.1	7.1
VOLUMETRIC FLOW RATES				
m ³ /h (Actual conditions)	18046	18952	18776	18591
Rm ³ /h (Reference conditions)	7612	6942	6994	7183
TEMPERATURE (°C)	404	498	494	465
MOISTURE (% v/v, wet basis)	3.6	5.2	5.1	4.6
STATIC PRESSURE (" H₂O)	-0.10	-0.10	-0.10	-0.10
GAS COMPOSITION (dry basis)				
O ₂ (% v/v)	17.39	16.06	16.17	16.54
CO ₂ (% v/v)	2.49	3.47	3.36	3.11
CO (ppmv)	6.4	2.0	2.6	3.7
AVERAGE ISOKINETICITY (%)	96.7	98.9	100.7	98.8

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

TABLE # 2
OUTLET OF INCINERATOR
RESULTS OF METALS ATMOSPHERIC EMISSIONS

Test Date Time	1 11-Jul-14 12:59 - 16:35	2 12-Jul-14 11:22 - 16:00	3 13-Jul-14 09:48 - 14:18	Average
Metals	Concentrations (µg/Rm ³)			
Aluminum (Al)	69.58	21.75	17.12	36.15
Antimony (Sb)	6.04	3.47	4.23	4.58
Arsenic (As)	0.98	0.65	0.69	0.77
Baryum (Ba)	1.48	0.99	0.64	1.03
Beryllium (Be)	< 0.79	< 0.85	< 0.83	< 0.82
Bismuth (Bi)	< 1.32	< 1.41	< 1.38	< 1.37
Boron (B)	< 15.02	< 22.32	< 17.67	< 18.34
Cadmium (Cd)	0.98	1.13	1.44	1.18
Calcium (Ca)	234.05	222.03	130.90	195.66
Chromium (Cr)	4.67	5.45	6.27	5.46
Cobalt (Co)	4.48	1.61	0.52	2.21
Copper (Cu)	15.08	19.12	14.58	16.26
Iron (Fe)	50.08	38.98	31.21	40.09
Lead (Pb)	57.99	78.25	92.79	76.34
Lithium (Li)	2.56	3.31	2.57	2.81
Magnesium (Mg)	53.24	30.48	28.89	37.54
Manganese (Mn)	56.98	3.53	29.44	29.99
Mercury (Hg)	10.55	70.72	8.53	29.93
Molybdenum (Mo)	1.05	1.41	1.10	1.19
Nickel (Ni)	0.71	0.73	0.55	0.67
Phosphorus (P)	< 75.65	< 93.79	< 92.79	< 87.41
Potassium (K)	5693.20	8163.84	6517.54	6791.53
Selenium (Se)	0.24	0.34	0.41	0.33
Silicium (soluble in HNO ₃)	80.39	53.95	39.22	57.85
Silver (Ag)	0.66	1.24	0.47	0.79
Sodium (Na)	2952.03	5338.98	3590.17	3960.39
Strontium (Sr)	0.55	0.54	0.30	0.46
Tellurium (Te)	< 0.79	< 0.85	< 0.83	< 0.82
Thallium (Tl)	< 0.79	< 0.85	< 0.83	< 0.82
Tin (Sn)	15.76	26.24	19.61	20.54
Titanium (Ti)	2.95	0.90	0.99	1.62
Uranium (U)	< 0.79	< 0.85	< 0.83	< 0.82
Vanadium (V)	0.13	0.08	0.14	0.12
Zinc (Zn)	142.33	144.92	146.92	144.72

"R" or "Reference Conditions" at 25 °C, 101.3 kPa, dry basis.

TABLE # 2 (cont'd)
OUTLET OF INCINERATOR
RESULTS OF METALS ATMOSPHERIC EMISSIONS

Test Date Time	1 11-Jul-14 12:59 - 16:35	2 12-Jul-14 11:22 - 16:00	3 13-Jul-14 09:48 - 14:18	Average
Metals	Concentrations (µg/Rm³ @ 11 % O₂)			
Aluminum (Al)	196.26	44.49	35.84	92.20
Antimony (Sb)	17.02	7.11	8.84	10.99
Arsenic (As)	2.75	1.33	1.45	1.84
Baryum (Ba)	4.16	2.02	1.33	2.50
Beryllium (Be)	< 2.23	< 1.73	< 1.73	< 1.90
Bismuth (Bi)	< 3.72	< 2.89	< 2.89	< 3.17
Boron (B)	< 42.37	< 45.65	< 36.99	< 41.67
Cadmium (Cd)	2.75	2.31	3.01	2.69
Calcium (Ca)	660.15	454.16	273.98	462.77
Chromium (Cr)	13.16	11.15	13.12	12.48
Cobalt (Co)	12.64	3.29	1.10	5.68
Copper (Cu)	42.52	39.12	30.52	37.39
Iron (Fe)	141.25	79.74	65.32	95.43
Lead (Pb)	163.55	160.05	194.22	172.61
Lithium (Li)	7.21	6.76	5.38	6.45
Magnesium (Mg)	150.17	62.35	60.46	90.99
Manganese (Mn)	160.73	7.22	61.62	76.52
Mercury (Hg)	29.76	144.65	17.86	64.09
Molybdenum (Mo)	2.97	2.89	2.31	2.72
Nickel (Ni)	2.01	1.50	1.16	1.56
Phosphorus (P)	< 213.36	< 191.83	< 194.22	< 199.80
Potassium (K)	16057.74	16698.77	13641.36	15465.96
Selenium (Se)	0.67	0.69	0.87	0.74
Silicium (soluble in HNO₃)	226.74	110.36	82.08	139.73
Silver (Ag)	1.86	2.54	0.98	1.79
Sodium (Na)	8326.24	10920.65	7514.31	8920.40
Strontium (Sr)	1.56	1.10	0.64	1.10
Tellurium (Te)	< 2.23	< 1.73	< 1.73	< 1.90
Thallium (Tl)	< 2.23	< 1.73	< 1.73	< 1.90
Tin (Sn)	44.46	53.68	41.04	46.39
Titanium (Ti)	8.33	1.85	2.08	4.09
Uranium (U)	< 2.23	< 1.73	< 1.73	< 1.90
Vanadium (V)	0.37	0.17	0.29	0.28
Zinc (Zn)	401.44	296.42	307.51	335.12

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

TABLE # 2 (cont'd)
OUTLET OF INCINERATOR
RESULTS OF METALS ATMOSPHERIC EMISSIONS

Test Date Time	1 11-Jul-14 12:59 - 16:35	2 12-Jul-14 11:22 - 16:00	3 13-Jul-14 09:48 - 14:18	Average
Metals	Emission rates (µg/s)			
Aluminum (Al)	147.14	41.94	33.27	74.12
Antimony (Sb)	12.76	6.70	8.21	9.22
Arsenic (As)	2.06	1.25	1.34	1.55
Baryum (Ba)	3.12	1.91	1.23	2.09
Beryllium (Be)	< 1.67	< 1.63	< 1.61	< 1.64
Bismuth (Bi)	< 2.79	< 2.72	< 2.68	< 2.73
Boron (B)	< 31.77	43.03	< 34.34	< 36.38
Cadmium (Cd)	2.06	2.18	2.79	2.34
Calcium (Ca)	494.92	428.15	254.32	392.46
Chromium (Cr)	9.87	10.51	12.18	10.85
Cobalt (Co)	9.47	3.10	1.02	4.53
Copper (Cu)	31.88	36.88	28.33	32.36
Iron (Fe)	105.90	75.17	60.63	80.57
Lead (Pb)	122.62	150.89	180.28	151.26
Lithium (Li)	5.41	6.37	4.99	5.59
Magnesium (Mg)	112.58	58.77	56.12	75.83
Manganese (Mn)	120.50	6.81	57.20	61.50
Mercury (Hg)	22.31	136.36	16.58	58.42
Molybdenum (Mo)	2.23	2.72	2.15	2.37
Nickel (Ni)	1.50	1.42	1.07	1.33
Phosphorus (P)	< 159.96	< 180.85	< 180.28	< 173.69
Potassium (K)	12038.70	15742.31	12662.47	13481.16
Selenium (Se)	0.50	0.65	0.80	0.65
Silicium (soluble in HNO3)	169.99	104.04	76.19	116.74
Silver (Ag)	1.39	2.40	0.91	1.57
Sodium (Na)	6242.29	10295.15	6975.09	7837.51
Strontium (Sr)	1.17	1.03	0.59	0.93
Tellurium (Te)	< 1.67	< 1.63	< 1.61	< 1.64
Thallium (Tl)	< 1.67	< 1.63	< 1.61	< 1.64
Tin (Sn)	33.33	50.60	38.09	40.68
Titanium (Ti)	6.24	1.74	1.93	3.31
Uranium (U)	< 1.67	< 1.63	< 1.61	< 1.64
Vanadium (V)	0.28	0.16	0.27	0.24
Zinc (Zn)	300.97	279.44	285.44	288.62

TABLE # 3

OUTLET OF INCINERATOR
METALS EMISSIONS AT THE STACK

TEST #	1
DATE	11-Jul-14
TIME	12:59 - 16:35

Metals	ANALYSES OF SAMPLE	CONCENTRATION (1)	EMISSION RATE (1)	CONCENTRATION (1)
	µg	µg/Rm ³	µg/s	µg/Rm ³ @ 11 % O ₂
Aluminum (Al)	264.0	69.58	147.14	196.26
Antimony (Sb)	22.9	6.04	12.76	17.02
Arsenic (As)	3.7	0.98	2.06	2.75
Baryum (Ba)	5.6	1.48	3.12	4.16
Beryllium (Be)	< 3.0	< 0.79	< 1.67	< 2.23
Bismuth (Bi)	< 5.0	< 1.32	< 2.79	< 3.72
Boron (B)	< 57.0	< 15.02	< 31.77	< 42.37
Cadmium (Cd)	3.7	0.98	2.06	2.75
Calcium (Ca)	888.0	234.05	494.92	660.15
Chromium (Cr)	17.7	4.67	9.87	13.16
Cobalt (Co)	17.0	4.48	9.47	12.64
Copper (Cu)	57.2	15.08	31.88	42.52
Iron (Fe)	190.0	50.08	105.90	141.25
Lead (Pb)	220.0	57.99	122.62	163.55
Lithium (Li)	9.7	2.56	5.41	7.21
Magnesium (Mg)	202.0	53.24	112.58	150.17
Manganese (Mn)	216.2	56.98	120.50	160.73
Mercury (Hg)	40.03	10.55	22.31	29.76
Molybdenum (Mo)	4.0	1.05	2.23	2.97
Nickel (Ni)	2.7	0.71	1.50	2.01
Phosphorus (P)	< 287.0	< 75.65	< 159.96	< 213.36
Potassium (K)	21600.0	5693.20	12038.70	16057.74
Selenium (Se)	0.9	0.24	0.50	0.67
Silicium (soluble in HNO ₃)	305.0	80.39	169.99	226.74
Silver (Ag)	2.5	0.66	1.39	1.86
Sodium (Na)	11200.0	2952.03	6242.29	8326.24
Strontium (Sr)	2.1	0.55	1.17	1.56
Tellurium (Te)	< 3.0	< 0.79	< 1.67	< 2.23
Thallium (Tl)	< 3.0	< 0.79	< 1.67	< 2.23
Tin (Sn)	59.8	15.76	33.33	44.46
Titanium (Ti)	11.2	2.95	6.24	8.33
Uranium (U)	< 3.0	< 0.79	< 1.67	< 2.23
Vanadium (V)	0.5	0.13	0.28	0.37
Zinc (Zn)	540.0	142.33	300.97	401.44

GAS SAMPLE VOLUME (Rm ³) :	3.794
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STACK GAS PROPERTIES	
VELOCITY (m/s)	6.9
VOLUMETRIC FLOW RATE	
m ³ /h (actual conditions)	18046
Rm ³ /h (reference conditions)	7612
GAS TEMPERATURE (°C)	404
MOISTURE (% v/v wet basis)	3.6
STATIC PRESSURE (inch H ₂ O)	-0.10
GAS COMPOSITION (dry basis)	
O ₂ (% v/v)	17.39
CO ₂ (% v/v)	2.49
CO (ppmv)	6.4

(1) When an analysis is "< D.L.", the detection limit (D.L.) is used in the calculations of concentration and emission.

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

TABLE # 4

OUTLET OF INCINERATOR
METALS EMISSIONS AT THE STACK

TEST #	2
DATE	12-Jul-14
TIME	11:22 - 16:00

Metals	ANALYSES OF SAMPLE	CONCENTRATION (1)	EMISSION RATE (1)	CONCENTRATION (1)
	µg	µg/Rm ³	µg/s	µg/Rm ³ @ 11 % O ₂
Aluminum (Al)	77.0	21.75	41.94	44.49
Antimony (Sb)	12.3	3.47	6.70	7.11
Arsenic (As)	2.3	0.65	1.25	1.33
Baryum (Ba)	3.5	0.99	1.91	2.02
Beryllium (Be)	< 3.0	< 0.85	< 1.63	< 1.73
Bismuth (Bi)	5.0	1.41	2.72	2.89
Boron (B)	79.0	22.32	43.03	45.65
Cadmium (Cd)	4.0	1.13	2.18	2.31
Calcium (Ca)	786.0	222.03	428.15	454.16
Chromium (Cr)	19.3	5.45	10.51	11.15
Cobalt (Co)	5.7	1.61	3.10	3.29
Copper (Cu)	67.7	19.12	36.88	39.12
Iron (Fe)	138.0	38.98	75.17	79.74
Lead (Pb)	277.0	78.25	150.89	160.05
Lithium (Li)	11.7	3.31	6.37	6.76
Magnesium (Mg)	107.9	30.48	58.77	62.35
Manganese (Mn)	12.5	3.53	6.81	7.22
Mercury (Hg)	250.34	70.72	136.36	144.65
Molybdenum (Mo)	5.0	1.41	2.72	2.89
Nickel (Ni)	2.6	0.73	1.42	1.50
Phosphorus (P)	< 332.0	< 93.79	< 180.85	< 191.83
Potassium (K)	28900.0	8163.84	15742.31	16698.77
Selenium (Se)	1.2	0.34	0.65	0.69
Silicium (soluble in HNO ₃)	191.0	53.95	104.04	110.36
Silver (Ag)	4.4	1.24	2.40	2.54
Sodium (Na)	18900.0	5338.98	10295.15	10920.65
Strontium (Sr)	1.9	0.54	1.03	1.10
Tellurium (Te)	< 3.0	< 0.85	< 1.63	< 1.73
Thallium (Tl)	< 3.0	< 0.85	< 1.63	< 1.73
Tin (Sn)	92.9	26.24	50.60	53.68
Titanium (Ti)	3.2	0.90	1.74	1.85
Uranium (U)	< 3.0	< 0.85	< 1.63	< 1.73
Vanadium (V)	0.3	0.08	0.16	0.17
Zinc (Zn)	513.0	144.92	279.44	296.42

GAS SAMPLE VOLUME (Rm ³) :	3.540
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STACK GAS PROPERTIES	
VELOCITY (m/s)	7.2
VOLUMETRIC FLOW RATE	
m ³ /h (actual conditions)	18952
Rm ³ /h (reference conditions)	6942
GAS TEMPERATURE (°C)	498
MOISTURE (% v/v wet basis)	5.2
STATIC PRESSURE (inch H ₂ O)	-0.10
GAS COMPOSITION (dry basis)	
O ₂ (% v/v)	16.06
CO ₂ (% v/v)	3.47
CO (ppmv)	2.0

(1) When an analysis is "< D.L.", the detection limit (D.L.) is used in the calculations of concentration and emission.

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

TABLE # 5

OUTLET OF INCINERATOR
METALS EMISSIONS AT THE STACK

TEST #	3
DATE	July 13, 2014
TIME	09:48 - 14:18

Metals	ANALYSES OF SAMPLE	CONCENTRATION (1)	EMISSION RATE (1)	CONCENTRATION (1)
	μg	$\mu\text{g/Rm}^3$	$\mu\text{g/s}$	$\mu\text{g/Rm}^3 @ 11 \% \text{ O}_2$
Aluminum (Al)	62.0	17.12	33.27	35.84
Antimony (Sb)	15.3	4.23	8.21	8.84
Arsenic (As)	2.5	0.69	1.34	1.45
Baryum (Ba)	2.3	0.64	1.23	1.33
Beryllium (Be)	< 3.0	< 0.83	< 1.61	< 1.73
Bismuth (Bi)	< 5.0	< 1.38	< 2.68	< 2.89
Boron (B)	< 64.0	< 17.67	< 34.34	< 36.99
Cadmium (Cd)	5.2	1.44	2.79	3.01
Calcium (Ca)	474.0	130.90	254.32	273.98
Chromium (Cr)	22.7	6.27	12.18	13.12
Cobalt (Co)	1.9	0.52	1.02	1.10
Copper (Cu)	52.8	14.58	28.33	30.52
Iron (Fe)	113.0	31.21	60.63	65.32
Lead (Pb)	336.0	92.79	180.28	194.22
Lithium (Li)	9.3	2.57	4.99	5.38
Magnesium (Mg)	104.6	28.89	56.12	60.46
Manganese (Mn)	106.6	29.44	57.20	61.62
Mercury (Hg)	30.90	8.53	16.58	17.86
Molybdenum (Mo)	4.0	1.10	2.15	2.31
Nickel (Ni)	2.0	0.55	1.07	1.16
Phosphorus (P)	< 336.0	< 92.79	< 180.28	< 194.22
Potassium (K)	23600.0	6517.54	12662.47	13641.36
Selenium (Se)	1.5	0.41	0.80	0.87
Silicium (soluble in HNO3)	142.0	39.22	76.19	82.08
Silver (Ag)	1.7	0.47	0.91	0.98
Sodium (Na)	13000.0	3590.17	6975.09	7514.31
Strontium (Sr)	1.1	0.30	0.59	0.64
Tellurium (Te)	< 3.0	< 0.83	< 1.61	< 1.73
Thallium (Tl)	< 3.0	< 0.83	< 1.61	< 1.73
Tin (Sn)	71.0	19.61	38.09	41.04
Titanium (Ti)	3.6	0.99	1.93	2.08
Uranium (U)	< 3.0	< 0.83	< 1.61	< 1.73
Vanadium (V)	0.5	0.14	0.27	0.29
Zinc (Zn)	532.0	146.92	285.44	307.51

GAS SAMPLE VOLUME (Rm^3) :	3.621
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STACK GAS PROPERTIES	
VELOCITY (m/s)	7.1
VOLUMETRIC FLOW RATE	
m ³ /h (actual conditions)	18776
Rm ³ /h (reference conditions)	6994
GAS TEMPERATURE (°C)	494
MOISTURE (% v/v wet basis)	5.1
STATIC PRESSURE (inch H ₂ O)	-0.10
GAS COMPOSITION (dry basis)	
O ₂ (% v/v)	16.17
CO ₂ (% v/v)	3.36
CO (ppmv)	2.6

(1) When an analysis is "< D.L.", the detection limit (D.L.) is used in the calculations of concentration and emission.

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

TABLE # 6
OUTLET OF INCINERATOR
SUMMARY OF ATMOSPHERIC EMISSIONS
SVOC

Test Date Time	1 11-Jul-14 12:59 - 16:35	2 12-Jul-14 11:22 - 16:00	3 13-Jul-14 09:48 - 14:18	Average
Weight of sample				
PCDD/F (pg TEQ)	49.49	84.47	108.01	
Gas sample volume (Rm ³)	3.449	3.349	3.290	
CONCENTRATIONS				
PCDD/F (pg/Rm ³ TEQ)	14.3	25.2	32.8	24.1
PCDD/F (pg/Rm ³ TEQ @ 11 % O ₂)	40.5	51.6	68.7	53.6
MASS EMISSION RATE				
PCDD/F (ng/h TEQ)	102.2	171.0	218.1	163.8
STACK GAS PROPERTIES				
VELOCITY (m/s)	6.4	7.0	6.8	6.7
VOLUMETRIC FLOW RATES				
m ³ /h (Actual conditions)	16795	18462	17860	17706
Rm ³ /h (Reference conditions)	7122	6780	6643	6848
TEMPERATURE (°C)	403	499	501	468
MOISTURE (% v/v, wet basis)	3.2	4.9	4.4	4.2
STATIC PRESSURE (" H ₂ O)	-0.10	-0.10	-0.10	-0.10
GAS COMPOSITION (dry basis)				
O ₂ (% v/v)	17.39	16.06	16.17	16.54
CO ₂ (% v/v)	2.49	3.47	3.36	3.11
CO (ppmv)	6.4	2.0	2.6	3.7
AVERAGE ISOKINETICITY (%)	94.6	96.3	96.2	95.7

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

TABLE # 7

OUTLET OF INCINERATOR
EMISSIONS OF PCDD/PCDF

TEST # 1

PROJECT: R14-034
 COMPANY: AGNICO-EAGLE MINES LTD,
 SITE: OUTLET OF INCINERATOR
 DATE: July 11, 2014

GAS SAMPLE VOLUME: 3.449 Rm³
 VOLUMETRIC FLOW RATE: 7122 Rm³/h
 OXYGEN (O₂): 17.39 % v/v, dry basis

CONGENERS	ANALYSES (1) pg	BLANK (2) pg	TOXIC (4) FACTOR	TEQ (3) pg	CONCENTRATIONS pg/Rm ³ TEQ (3)	EMISSIONS (TEQ) pg/s (3)
2,3,7,8-T4CDF without DB-225	25.1	< 0.6	0.1	2.51	0.73	1.44
1,2,3,7,8-P5CDF	18.0	< 0.4	0.05	0.90	0.26	0.52
2,3,4,7,8-P5CDF	37.0	< 0.3	0.5	18.50	5.36	10.61
1,2,3,4,7,8-H6CDF	63.0	< 0.5	0.1	6.30	1.83	3.61
1,2,3,6,7,8-H6CDF	26.0	< 0.5	0.1	2.60	0.75	1.49
2,3,4,6,7,8-H6CDF	45.0	< 0.6	0.1	4.50	1.30	2.58
1,2,3,7,8,9-H6CDF	5.0	< 1.0	0.1	0.50	0.14	0.29
1,2,3,4,6,7,8-H7CDF	86.6	< 0.6	0.01	0.87	0.25	0.50
1,2,3,4,7,8,9-H7CDF	14.7	< 0.9	0.01	0.15	0.04	0.08
1,2,3,4,6,7,8,9-O8CDF	38.0	5.0	0.001	0.04	0.01	0.02
2,3,7,8-T4CDD	4.0	< 0.8	1	4.00	1.16	2.29
1,2,3,7,8-P5CDD	8.0	< 0.6	0.5	4.00	1.16	2.29
1,2,3,4,7,8-H6CDD	5.8	< 0.5	0.1	0.58	0.17	0.33
1,2,3,6,7,8-H6CDD	12.8	< 0.6	0.1	1.28	0.37	0.73
1,2,3,7,8,9-H6CDD	20.6	< 0.6	0.1	2.06	0.60	1.18
1,2,3,4,6,7,8-H7CDD	65.0	2.0	0.01	0.65	0.19	0.37
1,2,3,4,6,7,8,9-O8CDD	61.0	3.5	0.001	0.06	0.02	0.03
TOTAL PCDD/F (5)	535.6	10.5		49.49	14.35	28.39

HOMOLOGOUS	ANALYSES (1) pg	BLANK (2) pg
T4CDF	599.0	0.9
P5CDF	361.0	< 0.4
H6CDF	272.0	< 1.0
H7CDF	151.0	< 0.9
OCDF	38.0	5.0
T4CDD	161.0	5.1
P5CDD	188.0	4.1
H6CDD	222.0	4.9
H7CDD	154.0	2.0
OCDD	61.0	3.5

NOTES : "R" or "Reference Conditions" correspond to 25 °C, 101.3 kPa, dry basis.

The sign "<" means that the analytical result is less than the detection limit (d.l.).

- (1) Analyzed by Agat Laboratories. Results ARE CORRECTED for the recovery of surrogates.
- (2) Field blank results are not subtracted from the analytical results.
- (3) When an analytical result is given as < d.l., the d.l. provided by the laboratory is used in the calculations.
- (4) Toxicity factors of method EPS 1/RM/2 of Environment Canada.
- (5) When a congener is not detected, the d.l. provided by the laboratory is used in the calculations for total PCDD/F.

TABLE # 8

OUTLET OF INCINERATOR
EMISSIONS OF PCDD/PCDF

TEST # 2

PROJECT: R14-034
 COMPANY: AGNICO-EAGLE MINES LTD.
 SITE: OUTLET OF INCINERATOR
 DATE: July 12, 2014

GAS SAMPLE VOLUME: 3.349 Rm³
 VOLUMETRIC FLOW RATE: 6780 Rm³/h
 OXYGEN (O₂): 16.06 % v/v, dry basis

CONGENERS	ANALYSES (1) pg	BLANK (2) pg	TOXIC (4) FACTOR	TEQ (3) pg	CONCENTRATIONS pg/Rm ³ TEQ (3)	EMISSIONS (TEQ) pg/s (3)
2,3,7,8-T4CDF without DB-225	37.9	< 0.6	0.1	3.79	1.13	2.13
1,2,3,7,8-P5CDF	28.0	< 0.4	0.05	1.40	0.42	0.79
2,3,4,7,8-P5CDF	68.7	< 0.3	0.5	34.35	10.26	19.32
1,2,3,4,7,8-H6CDF	118.0	< 0.5	0.1	11.80	3.52	6.64
1,2,3,6,7,8-H6CDF	46.1	< 0.5	0.1	4.61	1.38	2.59
2,3,4,6,7,8-H6CDF	71.9	< 0.6	0.1	7.19	2.15	4.04
1,2,3,7,8,9-H6CDF	4.1	< 1.0	0.1	0.41	0.12	0.23
1,2,3,4,6,7,8-H7CDF	176.0	< 0.6	0.01	1.76	0.53	0.99
1,2,3,4,7,8,9-H7CDF	20.9	< 0.9	0.01	0.21	0.06	0.12
1,2,3,4,6,7,8,9-O8CDF	62.0	5.0	0.001	0.06	0.02	0.03
2,3,7,8-T4CDD	7.0	< 0.8	1	7.00	2.09	3.94
1,2,3,7,8-P5CDD	13.0	< 0.6	0.5	6.50	1.94	3.66
1,2,3,4,7,8-H6CDD	9.0	< 0.5	0.1	0.90	0.27	0.51
1,2,3,6,7,8-H6CDD	19.0	< 0.6	0.1	1.90	0.57	1.07
1,2,3,7,8,9-H6CDD	16.0	< 0.6	0.1	1.60	0.48	0.90
1,2,3,4,6,7,8-H7CDD	87.8	2.0	0.01	0.88	0.26	0.49
1,2,3,4,6,7,8,9-O8CDD	108.0	3.5	0.001	0.11	0.03	0.06
TOTAL PCDD/F (5)	893.4	10.5		84.47	25.22	47.50

HOMOLOGOUS	ANALYSES pg	BLANK (2) pg
T4CDF	1090.0	0.9
P5CDF	625.0	< 0.4
H6CDF	459.0	< 1.0
H7CDF	272.0	< 0.9
OCDF	62.0	5.0
T4CDD	182.0	5.1
P5CDD	202.0	4.1
H6CDD	262.0	4.9
H7CDD	214.0	2.0
OCDD	108.0	3.5

NOTES : "R" or "Reference Conditions" correspond to 25 °C, 101.3 kPa, dry basis.

The sign "<" means that the analytical result is less than the detection limit (d.l.).

- (1) Analyzed by Agat Laboratories. Results ARE CORRECTED for the recovery of surrogates.
- (2) Field blank results are not subtracted from the analytical results.
- (3) When an analytical result is given as < d.l., the d.l. provided by the laboratory is used in the calculations.
- (4) Toxicity factors of method EPS 1/RM/2 of Environment Canada.
- (5) When a congener is not detected, the d.l. provided by the laboratory is used in the calculations for total PCDD/F.

TABLE # 9

OUTLET OF INCINERATOR
EMISSIONS OF PCDD/PCDF

TEST # 3

PROJECT: R14-034
 COMPANY: AGNICO-EAGLE MINES LTD,
 SITE: OUTLET OF INCINERATOR
 DATE: July 13, 2014

GAS SAMPLE VOLUME: 3.290 Rm³
 VOLUMETRIC FLOW RATE: 6643 Rm³/h
 OXYGEN (O₂): 16.17 % v/v, dry basis

CONGENERS	ANALYSES (1) pg	BLANK (2) pg	TOXIC (4) FACTOR	TEQ (3) pg	CONCENTRATIONS pg/Rm ³ TEQ (3)	EMISSIONS (TEQ) pg/s (3)
2,3,7,8-T4CDF without DB-225	36.1	< 0.6	0.1	3.61	1.10	2.02
1,2,3,7,8-P5CDF	31.0	< 0.4	0.05	1.55	0.47	0.87
2,3,4,7,8-P5CDF	79.0	< 0.3	0.5	39.50	12.01	22.16
1,2,3,4,7,8-H6CDF	176.0	< 0.5	0.1	17.60	5.35	9.87
1,2,3,6,7,8-H6CDF	59.8	< 0.5	0.1	5.98	1.82	3.35
2,3,4,6,7,8-H6CDF	103.0	< 0.6	0.1	10.30	3.13	5.78
1,2,3,7,8,9-H6CDF	6.0	< 1.0	0.1	0.60	0.18	0.34
1,2,3,4,6,7,8-H7CDF	302.0	< 0.6	0.01	3.02	0.92	1.69
1,2,3,4,7,8,9-H7CDF	28.0	< 0.9	0.01	0.28	0.09	0.16
1,2,3,4,6,7,8,9-O8CDF	79.0	5.0	0.001	0.08	0.02	0.04
2,3,7,8-T4CDD	7.0	< 0.8	1	7.00	2.13	3.93
1,2,3,7,8-P5CDD	16.0	< 0.6	0.5	8.00	2.43	4.49
1,2,3,4,7,8-H6CDD	12.5	< 0.5	0.1	1.25	0.38	0.70
1,2,3,6,7,8-H6CDD	36.0	< 0.6	0.1	3.60	1.09	2.02
1,2,3,7,8,9-H6CDD	36.0	< 0.6	0.1	3.60	1.09	2.02
1,2,3,4,6,7,8-H7CDD	184.0	2.0	0.01	1.84	0.56	1.03
1,2,3,4,6,7,8,9-O8CDD	196.0	3.5	0.001	0.20	0.06	0.11
TOTAL PCDD/F (5)	1387.4	10.5		108.01	32.83	60.58

HOMOLOGOUS	ANALYSES (1) pg	BLANK (2) pg
T4CDF	928.0	0.9
P5CDF	756.0	< 0.4
H6CDF	675.0	< 1.0
H7CDF	443.0	< 0.9
OCDF	79.0	5.0
T4CDD	204.0	5.1
P5CDD	392.0	4.1
H6CDD	494.0	4.9
H7CDD	452.0	2.0
OCDD	196.0	3.5

NOTES : "R" or "Reference Conditions" correspond to 25 °C, 101.3 kPa, dry basis.

The sign "<" means that the analytical result is less than the detection limit (d.l.).

- (1) Analyzed by Agat Laboratories. Results ARE CORRECTED for the recovery of surrogates.
- (2) Field blank results are not subtracted from the analytical results.
- (3) When an analytical result is given as < d.l., the d.l. provided by the laboratory is used in the calculations.
- (4) Toxicity factors of method EPS 1/RM/2 of Environment Canada.
- (5) When a congener is not detected, the d.l. provided by the laboratory is used in the calculations for total PCDD/F.

TABLE # 10


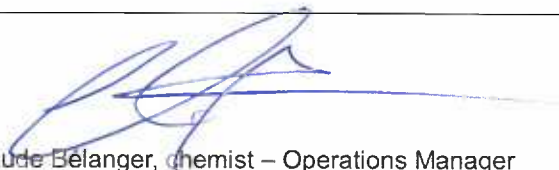
OUTLET OF INCINERATOR
MANUAL SAMPLING - NO_xCALCULATIONS OF NITROGEN OXIDES EMISSIONS
REFERENCE METHOD EPS 1-AP-77-3 - ENVIRONMENT CANADA

Test Date Time	1 2014-07-12 17:36	2 2014-07-12 17:34	3 2014-07-13 14:40	4 2014-07-13 14:37	Average
Volumetric flowrate (Rm ³ /h)	6861	6861	6819	6819	6840
FIELD DATA					
Container #	G-11	G-12	G-11	G-12	
Volume of flask (ml)	2053.4	2055.6	2053.4	2055.6	
Initial atm. pressure (inch Hg)	29.97	29.97	30.22	30.22	
Final atm. pressure (inch Hg)	30.22	30.22	30.17	30.17	
Initial pres. of flask (inch Hg)	-24.0	-24.0	-24.0	-24.0	
Final pres. of flask (inch H ₂ O)	-4.0	-11.0	-40.0	-14.5	
Initial temp. of flask (deg.F)	70.7	70.7	81.4	81.4	
Final temp. of flask (deg.F)	81.0	81.0	79.0	79.0	
Volume of solution (ml)	25	25	25	25	
Total µg NO ₂	< 4.0	4.0	12.0	14.0	
Reference volume of flask (ml)	1604.4	1571.5	1421.0	1549.4	
CONCENTRATIONS					
NO _x in ppmv	< 1.3	1.4	4.5	4.8	< 3.0
NO _x in mg/Rm ³ (NO ₂ equiv.)	< 2.5	2.5	8.4	9.0	< 5.6
EMISSIONS					
NO _x in kg/h (NO ₂ equiv.)	< 0.017	0.017	0.057	0.062	< 0.038

Volumetric flowrates are taken from the daily average of the SVOC and PAM tests.

"R" or "Reference conditions" correspond at 25°C, 101.3 kPa, dry basis.

Report signatories and approval

Author	 Pierre Duguay – P. Eng. - Supervisor
Approbation	 Claude Belanger, Chemist – Operations Manager

APPENDIX 1 OUTLET OF THE INCINERATOR

PAM TESTS

DATA REDUCTION COMPUTER PRINT-OUTS
FIELD SAMPLING DATA SHEETS
SAMPLING EQUIPMENT CALIBRATION REPORTS

Pages A1-1 to A1-6
Pages A1-7 to A1-21
Pages A1-22 and A1-23

SVOC TESTS

DATA REDUCTION COMPUTER PRINT-OUTS
FIELD SAMPLING DATA SHEETS
SAMPLING EQUIPMENT CALIBRATION REPORTS

Pages A1-24 to A1-29
Pages A1-30 to A1-42
Pages A1-43 and A1-44

NO_x TESTS

FIELD SAMPLING DATA SHEET
SAMPLING EQUIPMENT CALIBRATION REPORT

Page A1-45
Page A1-46

ANALYTICAL REPORTS

CODIFICATION OF SAMPLES
SVOC PROOFING RESULTS
PM ANALYTICAL RESULTS
HCI / METALS ANALYTICAL RESULTS
SVOC ANALYTICAL RESULTS
NO_x ANALYTICAL RESULTS

Pages A1-47 to A1-51
Pages A1-52 to A1-58
Page A1-59
Pages A1-60 to A1-93
Pages A1-94 to A1-100
Page A1-101

**AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
PAM**

Test ---	Date ---	Time -----	Filter mg	Probe mg	Cyclone mg	Vmeter ft³	Dstack inches	Period minutes
1	July 11, 2014	12:59 - 16:35	70.67	26.86		141.20	38.00	5

O2 (% v/v) Dry basis	CO2 (% v/v) Dry basis	CO (ppmv) Dry basis	Vol. water mL	Pbar "Hg	Dnozzle inch	Cpitot ---	γ ---	Pstatic "H2O
17.39	2.49	6.4	104.2	29.74	0.498	0.785	0.9622	-0.10
SO2	H2							
0	0							

Traverse #1								
Point	Tstack °F	ΔP "H2O	ΔH "H2O	Volume ft³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	781	0.080	1.08	71.50	71	72	99.9	22.9
	781	0.080	1.08	75.47	71	72		
2	784	0.080	1.08	75.47	74	71	93.3	22.9
	784	0.080	1.08	79.18	74	71		
3	788	0.080	1.08	79.18	76	72	96.7	23.0
	788	0.080	1.08	83.03	76	72		
4	783	0.078	1.06	83.03	78	72	96.3	22.6
	783	0.078	1.06	86.83	78	72		
5	797	0.078	1.05	86.83	80	73	97.0	22.8
	797	0.078	1.05	90.65	80	73		
6	801	0.085	1.14	90.65	82	75	97.6	23.8
	801	0.085	1.14	94.67	82	75		
7	816	0.085	1.13	94.67	84	77	98.1	23.9
	816	0.085	1.13	98.70	84	77		
8	765	0.085	1.19	98.70	86	79	94.3	23.4
	765	0.085	1.19	102.67	86	79		
9	761	0.100	1.40	102.67	86	80	97.1	25.4
	761	0.100	1.40	107.11	86	80		
10	775	0.095	1.32	107.11	88	81	100.6	24.9
	775	0.095	1.32	111.58	88	81		
11	756	0.095	1.34	111.58	89	82	96.0	24.7
	756	0.095	1.34	115.89	89	82		
12	757	0.100	1.41	115.89	89	84	98.3	25.3
	757	0.100	1.41	120.42	89	84		
13	757	0.100	1.41	120.42	87	84	97.4	25.3
	757	0.100	1.41	124.90	87	84		
14	733	0.100	1.44	124.90	88	84	94.6	25.1
	733	0.100	1.44	129.30	88	84		
15	738	0.100	1.44	129.30	88	84	97.4	25.1
	738	0.100	1.44	133.82	88	84		
16	747	0.100	1.43	133.82	88	85	95.1	25.2
	747	0.100	1.43	138.22	88	85		
17	751	0.110	1.56	138.22	88	85	95.8	26.5
	751	0.110	1.56	142.86	88	85		
18	725	0.110	1.60	142.86	88	86	97.3	26.2
	725	0.110	1.60	147.63	88	86		
Average	768	0.092	1.287	76.13	84	79	96.8	24.4

AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
PAM

Test #1, Traverse #2								
Point	Tstack °F	ΔP "H ₂ O	ΔH "H ₂ O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	815	0.070	0.93	147.77	80	79	94.8	21.7
	815	0.070	0.93	151.30	80	79		
2	813	0.070	0.93	151.30	79	79	95.1	21.7
	813	0.070	0.93	154.84	79	79		
3	813	0.070	0.94	154.84	82	79	96.1	21.7
	813	0.070	0.94	158.43	82	79		
4	823	0.065	0.86	158.43	82	79	96.5	21.0
	823	0.065	0.86	161.89	82	79		
5	814	0.065	0.87	161.89	84	80	95.9	20.9
	814	0.065	0.87	165.35	84	80		
6	832	0.060	0.79	165.35	85	81	96.3	20.2
	832	0.060	0.79	168.67	85	81		
7	794	0.060	0.82	168.67	86	82	96.4	19.9
	794	0.060	0.82	172.05	86	82		
8	786	0.065	0.89	172.05	85	82	91.9	20.7
	786	0.065	0.89	175.41	85	82		
9	754	0.065	0.92	175.41	86	83	96.7	20.4
	754	0.065	0.92	179.00	86	83		
10	755	0.070	0.99	179.00	86	83	95.3	21.2
	755	0.070	0.99	182.67	86	83		
11	759	0.070	0.99	182.67	86	84	98.5	21.2
	759	0.070	0.99	186.46	86	84		
12	741	0.070	1.00	186.46	86	84	99.1	21.1
	741	0.070	1.00	190.30	86	84		
13	740	0.070	1.00	190.30	86	84	97.5	21.1
	740	0.070	1.00	194.08	86	84		
14	743	0.070	1.00	194.08	88	85	97.6	21.1
	743	0.070	1.00	197.87	88	85		
15	731	0.065	0.94	197.87	88	85	97.8	20.2
	731	0.065	0.94	201.55	88	85		
16	604	0.065	1.05	201.55	88	85	94.8	19.1
	604	0.065	1.05	205.32	88	85		
17	607	0.060	0.97	205.32	88	86	99.2	18.4
	607	0.060	0.97	209.11	88	86		
18	604	0.060	0.97	209.11	88	86	97.5	18.4
	604	0.060	0.97	212.84	88	86		

Average	752	0.066	0.937	65.07	85	83	96.5	20.5
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Ave. test	760	0.079	1.112	141.20	85	81	96.7	22.5
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Velocity		Volumetric flow rates				Temperature		Moisture
ft/s	m/s	ACFM	SDCFM	m ³ /h	Rm ³ /h	°F	°C	% v/v
22.5	6.9	10620	4480	18046	7612	760	404	3.6

Total part.	Gas sample volume		Verification of Isokinetic					
mg	SDCF	Rm ³	Nb readings	Nb non Iso	Nb < 90%	Nb > 110%	Iso max.	Iso min.
97.53	133.98	3.794	36	0	0	0	100.6	91.9

Pstack "Hg	Pmeter "Hg	Md g/g-mole	Ms g/g-mole	Bwo -----	Ratio Vs max / Vs min -----	Vs max. ft/s	Vs min. ft/s
29.73	29.82	29.09	28.69	0.036	1.4	26.5	18.4

Particulate concentrations				Emission mass flow rate	
gr/ACF	gr/SDCF	mg/m ³	mg/Rm ³	lb/h	kg/h
0.005	0.011	11	26	0.4	0.2

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

AI-2

**AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
PAM**

Test ---	Date ----	Time -----	Filter mg	Probe mg	Cyclone mg	Vmeter ft³	Dstack inches	Period minutes
2	July 12, 2014	11:22 - 16:00	85.38	38.18		132.90	38.00	5

O2 (% v/v) Dry basis	CO2 (% v/v) Dry basis	CO (ppmv) Dry basis	Vol. water mL	Pbar "Hg	Dnozzle inch	Cpitot ---	γ ----	Pstatic "H2O
16.06	3.47	2.0	142.1	29.89	0.498	0.785	0.9622	-0.10
SO2	H2							
0	0							

Traverse #1								
Point	Tstack °F	ΔP "H2O	ΔH "H2O	Volume ft³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	856	0.100	1.27	13.18	69	70	102.3	26.3
	856	0.100	1.27	17.50	69	70		
2	944	0.095	1.13	17.50	75	70	100.1	26.5
	944	0.095	1.13	21.51	75	70		
3	954	0.095	1.13	21.51	77	70	100.7	26.6
	954	0.095	1.13	25.54	77	70		
4	948	0.095	1.14	25.54	81	72	96.0	26.5
	948	0.095	1.14	29.41	81	72		
5	943	0.090	1.09	29.41	83	73	98.7	25.8
	943	0.090	1.09	33.30	83	73		
6	938	0.090	1.10	33.30	86	76	100.2	25.7
	938	0.090	1.10	37.28	86	76		
7	936	0.090	1.10	37.28	87	77	99.9	25.7
	936	0.090	1.10	41.26	87	77		
8	889	0.095	1.21	41.26	89	80	98.3	26.0
	889	0.095	1.21	45.37	89	80		
9	890	0.095	1.21	45.37	89	81	99.0	26.0
	890	0.095	1.21	49.51	89	81		
10	900	0.095	1.20	49.51	91	83	100.2	26.1
	900	0.095	1.20	53.70	91	83		
11	916	0.095	1.19	53.70	92	84	98.9	26.2
	916	0.095	1.19	57.82	92	84		
12	890	0.085	1.09	57.82	94	86	101.4	24.6
	890	0.085	1.09	61.87	94	86		
13	894	0.080	1.02	61.87	94	86	98.2	23.9
	894	0.080	1.02	65.67	94	86		
14	892	0.075	0.96	65.67	94	88	100.6	23.1
	892	0.075	0.96	69.45	94	88		
15	885	0.075	0.97	69.45	94	88	97.4	23.0
	885	0.075	0.97	73.12	94	88		
16	885	0.075	0.97	73.12	94	88	99.0	23.0
	885	0.075	0.97	76.85	94	88		
17	872	0.060	0.79	76.85	96	91	94.7	20.5
	872	0.060	0.79	80.07	96	91		
18	867	0.060	0.79	80.07	96	91	94.2	20.5
	867	0.060	0.79	83.28	96	91		

Average	906	0.086	1.076	70.10	88	81	98.9	24.8
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AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
PAM

Test #2, Traverse #2								
Point	Tstack °F	ΔP "H ₂ O	ΔH "H ₂ O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	971	0.050	0.60	83.42	88	88	95.4	19.4
	971	0.050	0.60	86.25	88	88		
2	968	0.050	0.61	86.25	91	87	99.5	19.4
	968	0.050	0.61	89.21	91	87		
3	972	0.050	0.61	89.21	95	89	100.4	19.4
	972	0.050	0.61	92.21	95	89		
4	961	0.050	0.61	92.21	94	89	98.8	19.3
	961	0.050	0.61	95.17	94	89		
5	953	0.050	0.62	95.17	98	92	96.9	19.3
	953	0.050	0.62	98.10	98	92		
6	972	0.060	0.73	98.10	99	92	97.8	21.3
	972	0.060	0.73	101.32	99	92		
7	921	0.060	0.76	101.32	100	95	97.8	20.9
	921	0.060	0.76	104.61	100	95		
8	907	0.060	0.77	104.61	100	95	101.4	20.8
	907	0.060	0.77	108.04	100	95		
9	909	0.075	0.96	108.04	100	96	99.5	23.3
	909	0.075	0.96	111.80	100	96		
10	918	0.075	0.96	111.80	101	96	98.1	23.3
	918	0.075	0.96	115.50	101	96		
11	952	0.080	0.99	115.50	99	95	99.0	24.4
	952	0.080	0.99	119.30	99	95		
12	941	0.080	1.00	119.30	100	95	100.4	24.3
	941	0.080	1.00	123.17	100	95		
13	948	0.080	1.00	123.17	100	96	98.4	24.4
	948	0.080	1.00	126.96	100	96		
14	950	0.080	1.00	126.96	100	95	101.2	24.4
	950	0.080	1.00	130.85	100	95		
15	948	0.080	1.00	130.85	100	96	100.3	24.4
	948	0.080	1.00	134.71	100	96		
16	967	0.080	0.98	134.71	100	95	97.9	24.5
	967	0.080	0.98	138.45	100	95		
17	980	0.085	1.04	138.45	100	95	99.2	25.4
	980	0.085	1.04	142.34	100	95		
18	987	0.085	1.03	142.34	100	95	99.2	25.5
	987	0.085	1.03	146.22	100	95		

Average	951	0.068	0.848	62.80	98	93	98.9	22.4
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Ave. test	928	0.077	0.962	132.90	93	87	98.9	23.6
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Velocity		Volumetric flow rates				Temperature		Moisture
ft/s	m/s	ACFM	SDCFM	m ³ /h	Rm ³ /h	°F	°C	% v/v
23.6	7.2	11153	4085	18952	6942	928	498	5.2

Total part.	Gas sample volume		Verification of Isokinetic					
mg	SDCF	Rm ³	Nb readings	Nb non Iso	Nb < 90%	Nb > 110%	Iso max.	Iso min.
123.56	125.01	3.540	36	0	0	0	102.3	94.2

Pstack "Hg	Pmeter "Hg	Md g/g-mole	Ms g/g-mole	Bwo -----	Ratio Vs max / Vs min -----	Vs max. ft/s	Vs min. ft/s
29.88	29.96	29.20	28.62	0.052	1.4	26.6	19.3

Particulate concentrations				Emission mass flow rate	
gr/ACF	gr/SDCF	mg/m ³	mg/Rm ³	lb/h	kg/h
0.006	0.015	13	35	0.5	0.2

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

**AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
PAM**

Test ---	Date ----	Time -----	Filter mg	Probe mg	Cyclone mg	Vmeter ft³	Dstack inches	Period minutes
3	July 13, 2014	09:48 - 14:18	55.79	31.58		134.05	38.00	5

O2 (% v/v) Dry basis	CO2 (% v/v) Dry basis	CO (ppmv) Dry basis	Vol. water mL	Pbar "Hg	Dnozzle inch	Cpitot ----	γ ----	Pstatic "H2O
16.17	3.36	2.6	143.7	30.21	0.498	0.785	0.9622	-0.10
SO2	H2							
0	0							

Traverse #1								
Point	Tstack °F	ΔP "H2O	ΔH "H2O	Volume ft³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	868	0.070	0.89	46.36	75	75	101.1	22.0
	868	0.070	0.89	49.94	75	75		
2	840	0.070	0.91	49.94	77	75	101.6	21.8
	840	0.070	0.91	53.58	77	75		
3	831	0.070	0.92	53.58	79	76	100.6	21.7
	831	0.070	0.92	57.21	79	76		
4	849	0.070	0.91	57.21	83	77	100.3	21.9
	849	0.070	0.91	60.82	83	77		
5	855	0.070	0.91	60.82	86	78	99.9	21.9
	855	0.070	0.91	64.42	86	78		
6	914	0.065	0.81	64.42	87	80	102.1	21.6
	914	0.065	0.81	67.90	87	80		
7	925	0.065	0.81	67.90	89	82	101.6	21.7
	925	0.065	0.81	71.36	89	82		
8	931	0.065	0.81	71.36	90	82	100.8	21.7
	931	0.065	0.81	74.79	90	82		
9	933	0.065	0.81	74.79	94	85	98.5	21.7
	933	0.065	0.81	78.16	94	85		
10	935	0.065	0.81	78.16	93	86	100.6	21.7
	935	0.065	0.81	81.60	93	86		
11	945	0.070	0.86	81.60	93	87	102.0	22.6
	945	0.070	0.86	85.21	93	87		
12	967	0.070	0.85	85.21	94	88	99.5	22.8
	967	0.070	0.85	88.71	94	88		
13	954	0.080	0.98	88.71	93	88	100.7	24.3
	954	0.080	0.98	92.51	93	88		
14	962	0.080	0.98	92.51	93	89	100.9	24.3
	962	0.080	0.98	96.31	93	89		
15	974	0.080	0.97	96.31	97	90	103.3	24.5
	974	0.080	0.97	100.20	97	90		
16	964	0.080	0.98	100.20	94	90	104.0	24.4
	964	0.080	0.98	104.12	94	90		
17	971	0.085	1.04	104.12	96	91	99.8	25.2
	971	0.085	1.04	108.00	96	91		
18	954	0.085	1.05	108.00	97	91	99.4	25.0
	954	0.085	1.05	111.89	97	91		

Average	921	0.073	0.906	65.53	89	84	100.9	22.8
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AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
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Test #3, Traverse #2								
Point	Tstack °F	ΔP "H ₂ O	ΔH "H ₂ O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	791	0.050	0.69	112.05	85	86	101.1	18.1
	791	0.050	0.69	115.23	85	86		
2	791	0.050	0.68	115.23	84	84	101.1	18.1
	791	0.050	0.68	118.40	84	84		
3	792	0.050	0.69	118.40	86	85	99.9	18.1
	792	0.050	0.69	121.54	86	85		
4	813	0.060	0.81	121.54	87	85	100.1	20.0
	813	0.060	0.81	124.96	87	85		
5	922	0.075	0.94	124.96	89	86	98.0	23.2
	922	0.075	0.94	128.56	89	86		
6	924	0.075	0.93	128.56	89	86	99.9	23.3
	924	0.075	0.93	132.23	89	86		
7	930	0.080	0.99	132.23	89	88	99.4	24.1
	930	0.080	0.99	136.00	89	88		
8	914	0.080	1.01	136.00	91	88	102.4	23.9
	914	0.080	1.01	139.91	91	88		
9	929	0.080	1.00	139.91	92	89	102.7	24.1
	929	0.080	1.00	143.82	92	89		
10	926	0.085	1.06	143.82	92	90	100.2	24.8
	926	0.085	1.06	147.76	92	90		
11	978	0.090	1.09	147.76	92	91	101.7	26.0
	978	0.090	1.09	151.80	92	91		
12	977	0.090	1.09	151.80	93	91	100.0	26.0
	977	0.090	1.09	155.78	93	91		
13	982	0.090	1.09	155.78	94	92	99.5	26.0
	982	0.090	1.09	159.74	94	92		
14	985	0.095	1.14	159.74	92	91	101.7	26.7
	985	0.095	1.14	163.88	92	91		
15	979	0.095	1.15	163.88	93	92	98.8	26.7
	979	0.095	1.15	167.92	93	92		
16	983	0.100	1.21	167.92	93	92	100.8	27.4
	983	0.100	1.21	172.14	93	92		
17	981	0.100	1.21	172.14	94	93	101.0	27.4
	981	0.100	1.21	176.38	94	93		
18	977	0.100	1.21	176.38	94	92	99.7	27.4
	977	0.100	1.21	180.57	94	92		

Average	921	0.080	0.999	68.52	91	89	100.4	23.9
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Ave. test	921	0.076	0.953	134.05	90	86	100.7	23.4
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Velocity		Volumetric flow rates				Temperature		Moisture
ft/s	m/s	ACFM	SDCFM	m ³ /h	Rm ³ /h	°F	°C	% v/v
23.4	7.1	11050	4116	18776	6994	921	494	5.1

Total part.	Gas sample volume		Verification of Isokinetic					
mg	SDCF	Rm ³	Nb readings	Nb non Iso	Nb < 90%	Nb > 110%	Iso max.	Iso min.
87.37	127.87	3.621	36	0	0	0	104.0	98.0

Pstack "Hg	Pmeter "Hg	Md g/g-mole	Ms g/g-mole	Bwo -----	Ratio Vs max / Vs min -----	Vs max. ft/s	Vs min. ft/s
30.20	30.28	29.18	28.61	0.051	1.5	27.4	18.1

Particulate concentrations				Emission mass flow rate	
gr/ACF	gr/SDCF	mg/m ³	mg/Rm ³	lb/h	kg/h
0.004	0.011	9	24	0.4	0.2

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

AI-6



SAMPLING DATA SHEET - MANUAL SAMPLING

Company: <u>Agnico Eagle</u>	Control: # <u>5810 X = .9622</u>	Duct: Dia ("): <u>3.8</u> Port ("): <u>1.0</u>
City: <u>Neepawa</u>	Probe: # <u>8110</u> CV = <u>.785</u>	Diameter: Bef: <u>3.8</u> After: <u>2.5</u>
Date: <u>11-7-14</u> / Project: <u>R</u>	Nozzle: # <u>1/2</u> Dn = <u>.498</u> Box: #	Sheet: <u>1</u> of <u>3</u>
Site: <u>Incineration</u>	Supposed moisture % = <u>57</u>	Leak before: <u>0.0090</u> "H ₂ O @ <u>-15</u> "Hg
Test: <u>1 Metanol</u>	Pressure: Pbar ("Hg) = <u>29.80</u> Pstat ("H ₂ O) = <u>-1.10</u>	Leak after: <u>0.0090</u> "H ₂ O @ <u>-15</u> "Hg

Point	Time	TS (°F)	▲P ("H ₂ O)	▲H ("H ₂ O)	Volume (ft ³)	Temperature				Vacuum ("Hg)	% ISO (%)	Gases			
						Tmi (°F)	Tmo (°F)	Temp (°F)	Oven (°F)			O ₂ (%)	CO ₂ (%)	CO (ppmv / %)	NOx (ppmv)
1	12:59	781	1080	108	71.50	71	72	250	250	-4.0	101.7				
2	13:04	781	1080	108	71.50	71	72			-4.0	75.0				
3	13:09	784	1080	108	71.50	71	71			-5.0	78.5				
4	13:14	788	1080	108	71.50	71	72			-5.0	78.1				
5	13:19	788	1080	108	71.50	71	72			-5.0	78.9				
6	13:24	788	1080	108	71.50	71	72			-5.0	79.4				
7	13:29	788	1080	108	71.50	71	72			-5.0	79.9				
8	13:34	788	1080	108	71.50	71	72			-5.0	96.1	17.4	2.5	17	
9	13:39	788	1080	108	71.50	71	72			-6.0	98.8				
10	13:44	788	1080	108	71.50	71	72			-5.0	102.4				
11	13:49	788	1080	108	71.50	71	72			-5.0	97.8				
12	13:54	788	1080	108	71.50	71	72			-6.0	100.0				
Constant => K = 31.50											A% = 109.36				

AI
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Sampler: S. Lapointe

Sampler assistant:

S. Demers



SAMPLING DATA SHEET - MANUAL SAMPLING

Company: <u>Agnier engls</u>	Control: # <u>88108 = 9622</u>	Ko = <u>.7304</u>	Duct: <u></u>	Dia ("): <u>38</u>	Port ("): <u>16</u>
City: <u>Montréal Bank</u>	Probe: # <u>2E(m) Cv = 785</u>		Diameter: <u>Bef: 50</u>		After: <u>20</u>
Date: <u>11-7-14</u> / Project: <u>R</u>	Nozzle: # <u>1/2</u> Dn = <u>498</u>	Box: # <u></u>	Sheet: <u>2</u> of <u>3</u>		
Site: <u>Incineration</u>	Supposed moisture % = <u>5%</u>		Leak before: <u>9.0000</u>	"H2O @ <u>-15</u>	"Hg
Test: <u>1 H2O</u>	Pressure: Pbar ("Hg) = <u>29.180</u>	Pstat ("H2O) = <u>-0.60</u>	Leak after: <u></u>	"H2O @ <u></u>	"Hg

Point	Time	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (ft³)	Temperature			Vacuum (" Hg)	% ISO (%)	Gases		
						Tmi (°F)	Tmo (°F)	Probe (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)
13	14:04	75.7	1100	1.41	120.42	87	84	250	-6.0	99.1			
	13:59	75.7	1100	1.41		87	84						
14	14:09	73.3	1100	1.44	124.90	88	84		-6.0	96.3			
	14:04	73.3	1100	1.44		88	84						
15	14:14	73.8	1100	1.44	129.30	88	84		-7.0	99.1			
	14:09	73.8	1100	1.44		88	84						
16	14:19	74.7	1100	1.43	133.82	88	85		-7.0	96.7	17.2	2.7	21
	14:14	74.7	1100	1.43		88	85						
17	14:24	75.1	1110	1.56	138.22	88	85		-7.0	97.4			
	14:19	75.1	1110	1.56		88	85						
18	14:29	72.5	1110	1.60	142.86	88	86		-7.0	97.0			
	14:24	72.5	1110	1.60	147.63	88	86						
1	15:05	81.5	1070	1.93	147.77	80	79	250	-7.0	96.6			
	15:05	81.5	1070	1.93		80	79						
2	15:10	81.5	1070	1.93	151.30	79	79		-7.0	96.9			
	15:10	81.5	1070	1.93		79	79						
3	15:15	81.5	1070	1.94	154.84	82	79		-8.0	98.0	17.6	2.3	0
	15:15	81.5	1070	1.94		82	79						
4	15:20	82.3	1065	1.86	158.43	82	79		-8.0	98.4			
	15:20	82.3	1065	1.86		82	79						
5	15:25	81.4	1065	1.87	161.89	84	80		-8.0	97.7			
	15:25	81.4	1065	1.87		84	80						
6	15:30	83.2	1060	1.79	165.35	85	81		-8.0	98.1			
	15:30	83.2	1060	1.79		85	81						
					Constant => K = <u>3150</u>			A% = <u>109.26</u>					

1 Sampler: S. Lapointe

Sampler assistant: S. Lapointe



SAMPLING DATA SHEET - MANUAL SAMPLING

Company: <u>Agnico Eagle</u>	Control: # <u>3610</u>	Ko = <u>9304</u>	Duct: <u>38</u>	Port (") / °
City: <u>Neeraw Bunk</u>	Probe: # <u>3610</u>	Cv = <u>785</u>	Diameter: Bef: <u>58</u>	After: <u>23</u>
Date: <u>11-7-14</u> / Project: <u>R</u>	Nozzle: # <u>42</u>	Dn = <u>498</u>	Box: #	Sheet: <u>3</u> of <u>3</u>
Site: <u>Incinerator</u>	Supposed moisture % = <u>57</u>		Leak before: <u>"H2O @</u>	"Hg
Test: # <u>1</u> / <u>Matamoras</u>	Pressure: Pbar ("Hg) = <u>29.86</u>	Pstat ("H2O) = <u>-0.6</u>	Leak after: <u>"H2O @</u>	"Hg

Point	Time	TS (°F)	▲ P (" H2O)	▲ H (" H2O)	Volume (ft³)	Temperature			Vacuum (" Hg)	% ISO (%)	Gases		
						Tmi (°F)	Tmo (°F)	Probe (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)
7	15:35	794	1060	182	168.67	86	82	250	-8.0	98.2	17.6	2.3	0
8	15:40	786	1065	189	172.05	85	82		-8.0	93.6			
9	15:45	786	1065	189	175.41	86	83		-7.0	98.5			
10	15:50	785	1070	199	179.00	86	83		-7.0	97.1			
11	15:55	789	1070	199	182.67	86	84		-9.0	100.4			
12	16:00	791	1070	199	186.46	86	84		-9.0	100.9	17.1	2.7	0
13	16:05	740	1070	199	190.30	86	84		-7.0	97.3			
14	16:10	743	1070	199	194.08	88	85		-9.0	99.4			
15	16:15	743	1065	197	197.87	88	85		-9.0	99.7			
16	16:20	604	1065	195	201.55	88	85		-9.0	96.5	17.2	2.6	0
17	16:25	607	1060	197	205.32	88	86		-9.0	101.0			
18	16:30	607	1060	197	209.11	88	86		-9.0				
Fin	16:35	604	1060	197	212.84	88	86						
						Constant => K = <u>31.50</u>			A% = <u>109.36</u>				

Sampler: S. Lapointe

Sampler assistant: S. Bouché

WEIGHT SHEET

Company	Agnico-Eagle
Location	Baker Lake
Date	11 / 07 / 2014
Site	Outlet incinerator
Train #	13
Test #	1 PAM

DATA	
Pbar: 29,74 po.Hg	
G	O ₂ % 17,39
A	CO ₂ % 2,49
Z	CO ppm 64
	CO %

	No.	Weight		Weight Particulates
		Final (g)	Initial (g)	
Filter	Q432		046339	
Probe wash				
Cyclone				
			Weight (g)	

Impingers	Final weight	Initial weight	Water weight
1 H ₂ O	540,1	510,7	29,4
2 H ₂ O	542,3	512,3	30,0
3 HNO ₃ 5% / H ₂ O ₂ 10 %	607,8	592,7	15,1
4 HNO ₃ 5% / H ₂ O ₂ 10 %	570,5	565,6	4,9
5 Empty	470,6	469,8	0,8
6 KMnO ₄ 4% / H ₂ SO ₄ 10%	586,2	586,0	0,2
7 KMnO ₄ 4% / H ₂ SO ₄ 10%	624,7	626,1	-1,4
8 Silica gel	689,3	664,1	25,2
Final weight			104,2

Preparation	Prepared by	Recovered by	Approved by
Date	11-07-14	11-07-14	
On site	S. Demers	S. Demers	
Laboratory			

A1-10

Gestion des volumes des Barboteurs

Barboteur #	Volume d'eau Condensé	Volume de solution Initiale	Total	Code
1	29.4 mL	+ 100 mL	129.4 mL ⁽¹⁾	
2	30.0 mL	+ 100 mL	130.0 mL ⁽²⁾	
Rincage (poids)	g	g	18.9 mL ⁽³⁾	1 g d'eau = 1 mL
Sous-total (1+2+3)			278.3 mL ⁽⁴⁾	
Aliquot (Contenant 3B)			(-) 100 mL ⁽⁵⁾	11 JUL14-A3-PAM-INC-(1+2-A)-14034.64
Volume final (4-5)			178.3 mL ⁽⁶⁾	
Divise par 20			divise par 20 ⁽⁷⁾	
Volume d'acide HNO ₃ conc. à ajouter			9.0 mL ⁽⁸⁾	
Volume final (5+6+8) (Contenant 3A)			287.3 mL ⁽⁹⁾	11 JUL14-A3-PAM-INC-(1+2-M1)-14034.65 JUL14-A3-PAM-INC-(1+2-M2)-14034.66
3	15.1 mL	+ 100 mL	115.1 mL ⁽¹⁰⁾	
4	4.9 mL	+ 100 mL	104.9 mL ⁽¹¹⁾	
Rincage (poids)	g	g	26.1 mL ⁽¹²⁾	
Total (10 + 11 + 12) (Contenant 4)			246.1 mL ⁽¹³⁾	11 JUL14-A3-PAM-INC-(3+4-RM)-14034.67
5	0.8 mL	+ 0 mL	0.8 mL ⁽¹⁴⁾	
Rincage (poids)	g	g	14.9 mL ⁽¹⁵⁾	
Total (14 + 15) (Contenant 5 A)			15.7 mL ⁽¹⁶⁾	11 JUL14-A3-PAM-INC-(5)-14034.68
6	100.2 mL	+ 100 mL	100.2 mL ⁽¹⁷⁾	
7	-1.4 mL	+ 100 mL	98.6 mL ⁽¹⁸⁾	
Rincage (KMnO ₄)	g	g	21.3 mL ⁽¹⁹⁾	g KMnO ₄ / 1.124 g/mL = mL KMnO ₄
Rincage (H ₂ O)	g	g	43.1 mL ⁽²⁰⁾	
Total (17 + 18 + 19 + 20) (Contenant 5 B)			263.2 mL ⁽²¹⁾	11 JUL14-A3-PAM-INC-(6+7)-14034.69

A1

A1-11

SAMPLING DATA SHEET - MANUAL SAMPLING

Company:	Agnica enale	Control:	#3816	X = 7622	Ko = 9304	Duct:	Dia ("):	38	Port (")	10
City:	Montréal	Probe:	#2516	CV = 785		Diameter:	Bef:	50	After:	20
Date:	12-7-14	Project:	R		Box: #	Nozzle:	#	1/2	Dn = 448	
Site:	Incinerateur	Supposed moisture % =	57						"H2O @	-15" Hg
Test:	#2	Pressure:	Pbar ("Hg) =	29.80	Pstat ("H2O) =	2.16			"H2O @	"Hg

Point	Time	TS (°F)	▲P ("H2O)	▲H ("H2O)	Volume (ft³)	Temperature				Vacuum ("Hg)	% ISO (%)	Gases			
						Tmi (°F)	Tmo (°F)	Temp (°F)	Oven (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)	NOx (ppmv / %)
1	11:22	856	100	1.27	13.18	67	70	250	250	-5.0	102.4				
2	11:27	856	100	1.27	17.50	75	70			-5.0	100.1	15.4	3.8	3	
3	11:32	944	1095	1.13	21.51	77	70			-5.0	100.8				
4	11:37	948	1095	1.14	25.54	81	72			-5.0	96.0	15.3	3.9	1	
5	11:42	943	1090	1.09	29.41	83	73			-5.0	98.7				
6	11:47	938	1090	1.10	33.30	86	76			-5.0	100.3				
7	11:52	936	1090	1.10	37.28	87	77			-5.0	100.0				
8	11:57	889	1095	1.21	41.26	89	80			-6.0	100.54	15.9	3.6	2	
9	12:02	890	1095	1.21	45.37	89	81			-6.0	98.4				
10	12:07	900	1095	1.20	49.51	91	83			-6.0	100.2				
11	12:12	916	1095	1.19	53.70	92	84			-6.0	99.0	16.0	3.7	4	
12	12:17	890	1085	1.09	57.82	94	86			-6.0	101.5				
		890	1085	1.09		94	86								
Constant => K = 31.50											A% = 107.36				

Sampler: S. Lapin
Sampler assistant: S. Demerouti



SAMPLING DATA SHEET - MANUAL SAMPLING

Company: <u>Agrico eugle</u>	Control: # <u>8610</u>	$\gamma = .9622$	Ko = <u>.9304</u>	Duct: <u>38</u>	Port (") <u>10</u>
City: <u>Montreal</u>	Probe: # <u>2810</u>	Cv = <u>.765</u>		Diameter: Bef: <u>38</u>	After: <u>28</u>
Date: <u>12-7-14</u>	Nozzle: # <u>12</u>	Dn = <u>.498</u>	Box: #	Sheet: <u>2</u> of <u>3</u>	
Site: <u>Tricoucou</u>	Supposed moisture % = <u>5%</u>			Leak before: <u>0.0000</u>	"H2O @ -15" "Hg
Test: # <u>2</u>	Pressure: Pbar ("Hg) = <u>29.80</u>	Pstat ("H2O) = <u>-0.6</u>		Leak after: <u>0.0000</u>	"H2O @ -6.0" "Hg

Point	Time	TS (°F)	▲ P (" H2O)	▲ H (" H2O)	Volume (ft³)	Temperature			Vacuum (" Hg)	% ISO (%)	Gases		
						Tmi (°F)	Tmo (°F)	Probe (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)
13	12:22	894	.086	102	61.87	94	86	250	-6.0	98.3			
		894	.086	102		94	86						
14	12:27	892	.075	106	65.67	94	88		-6.0	100.7			
		892	.075	106		94	88						
15	12:32	885	.075	107	69.45	94	88		-6.0	97.5			
		885	.075	107		94	88						
16	12:37	885	.075	107	73.12	94	88		-6.0	99.1			
		885	.075	107		94	88						
17	12:42	872	.080	106	76.85	96	91		-6.0	94.8			
		872	.080	106		96	91						
18	12:47	867	.080	106	80.07	96	91		-6.0	94.3			
		867	.080	106		96	91						
1	14:30	771	.050	160	83.28	88	88	250	-6.0	95.5	16.3	3.2	2
		771	.050	160		88	88						
2	14:35	968	.050	161	86.25	91	87		-6.0	99.6			
		968	.050	161		91	87						
3	14:40	972	.050	161	89.21	95	89		-6.0	100.6			
		972	.050	161		95	89						
4	14:45	961	.050	161	92.21	94	89		-6.0	99.0			
		961	.050	161		94	89						
5	14:50	953	.050	162	93.17	98	92		-6.0	97.1			
		953	.050	162		98	92						
6	14:55	972	.060	173	98.10	99	92		-6.0	97.8			
		972	.060	173		99	92						
					Constant => K = 31.50			A% = 107.36					

Sampler: S. Legrand Sampler assistant: S. Doreau



SAMPLING DATA SHEET - MANUAL SAMPLING

Company: <u>Agripro Inc.</u>		Control: # <u>8810</u> X = <u>9622</u>		Ko = <u>9204</u>		Duct: Dia ("): <u>38</u> Port ("): <u>10</u>	
City: <u>Montreal</u>		Probe: # <u>351</u> CV = <u>785</u>				Diameter: Bef. <u>50</u> After: <u>27</u>	
Date: <u>12-7-14</u> / Project: <u>R</u>		Nozzle: # <u>V2</u> Dn = <u>498</u> Box: #				Sheet: <u>3</u> of <u>3</u>	
Site: <u>Incineration</u>		Supposed moisture % = <u>5%</u>				Leak before: "H2O @ "Hg	
Test: # <u>2</u> <u>Motor</u>		Pressure: Pbar ("Hg) = <u>29.80</u>		Pstat ("H2O) = <u>-0.10</u>		Leak after: <u>0.000</u> "H2O @ <u>-15</u> "Hg	

Point	Time	TS (°F)	▲ P (" H2O)	▲ H (" H2O)	Volume (ft³)	Tmi (°F)	Temperature			Vacuum (" Hg)	% ISO (%)	Gases			
							Tmo (°F)	Temp (°F)	Oven (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)	NOx (ppmv)
7	15:00	921	1060	176	101.32	100	95	280	280	-7.0	97.9	17.1	2.9	0	
8	15:05	907	1060	177	104.61	100	95			-7.0	101.6				
9	15:10	909	1075	196	108.04	100	96			-8.0	97.6				
10	15:15	918	1075	196	111.80	101	96			-8.0	98.2				
11	15:20	952	1080	199	115.50	99	95			-8.0	99.1	16.4	3.2	2	
12	15:25	941	1080	199	119.30	100	95			-8.0	100.5				
13	15:30	948	1080	100	123.17	100	96			-9.0	98.5				
14	15:35	950	1080	100	126.96	100	95			-9.0	101.3				
15	15:40	948	1080	100	130.85	100	96			-9.0	100.4				
16	15:45	967	1080	198	134.71	100	95			-10.0	98.0				
17	15:50	980	1085	104	138.45	100	95			-10.0	99.3				
18	15:55	987	1085	103	142.34	100	95			-10.0					
Sum	16:00	987	1085	103	146.22	100	95			-10.0					
Constant => K = <u>31.50</u>							A% = <u>109.3%</u>								

Sampler: 21.000

Sampler assistant: S. Dombier

WEIGHT SHEET

Company	Agnico-Eagle
Location	Baker Lake
Date	12 / 07 / 2014
Site	Outlet incinerator
Train #	13
Test #	2 PAM

DATA	
Pbar: 29.89 po.Hg	
G	O ₂ % 16.06
A	CO ₂ % 3.47
Z	CO ppm 2.0
	CO %

	No.	Weight Final (g)	Weight Initial (g)	Weight Particulates
Filter	Q-431		0.46686	
Probe wash				
Cyclone				
			Weight (g)	

Impingers	Final weight	Initial weight	Water weight
1 H ₂ O	567.5	509.7	57.8
2 H ₂ O	557.7	518.6	39.1
3 HNO ₃ 5% / H ₂ O ₂ 10 %	610.9	595.3	15.6
4 HNO ₃ 5% / H ₂ O ₂ 10 %	569.4	565.1	4.3
5 Empty	471.9	470.3	1.6
6 KMnO ₄ 4% / H ₂ SO ₄ 10%	589.0	587.8	1.2
7 KMnO ₄ 4% / H ₂ SO ₄ 10%	630.8	631.9	-1.1
8 Silica gel	688.7	665.1	23.6
Final weight			142.1

Preparation	Prepared by	Recovered by	Approved by
Date	S.L	S.L	
On site	12-7-14	12-07-14	
Laboratory			

A1-15

2

Gestion des volumes des Barboteurs

Barboteur #	Volume d'eau Condensé	Volume de solution Initiale	Total	Code
1	57.8 mL	+ 100 mL	157.8 mL ⁽¹⁾	
2	39.1 mL	+ 100 mL	139.1 mL ⁽²⁾	
Rincage (poids)	g	g	24.1 mL ⁽³⁾	1 g d'eau = 1 mL
Sous-total (1+2+3)			321 mL ⁽⁴⁾	
Aliquot (Contenant 3B)			(-) 100 mL ⁽⁵⁾	12 JUL14-A2-PAM-INC-(1+2-A)-14034.54
Volume final (4-5)			221 mL ⁽⁶⁾	
Divise par 20			divise par 20 ⁽⁷⁾	
Volume d'acide HNO ₃ conc. à ajouter			1105 mL ⁽⁸⁾	
Volume final (5+6+8) (Contenant 3A)			23133 mL ⁽⁹⁾	12 JUL14-A2-PAM-INC-(1+2-M1)-14034.55 JUL14-A2-PAM-INC-(1+2-M2)-14034.56
3	15.6 mL	+ 100 mL	115.6 mL ⁽¹⁰⁾	
4	4.3 mL	+ 100 mL	104.3 mL ⁽¹¹⁾	
Rincage (poids)	g	g	31.3 mL ⁽¹²⁾	
Total (10 + 11 + 12) (Contenant 4)			251.2 mL ⁽¹³⁾	12 JUL14-A2-PAM-INC-(3+4-RM)-14034.57
5	1.6 mL	+ 0 mL	1.6 mL ⁽¹⁴⁾	
Rincage (poids)	g	g	18.9 mL ⁽¹⁵⁾	
Total (14 + 15) (Contenant 5 A)			20.5 mL ⁽¹⁶⁾	12 JUL14-A2-PAM-INC-(5)-14034.58
6	1.2 mL	+ 100 mL	101.2 mL ⁽¹⁷⁾	
7	-1.1 mL	+ 100 mL	98.9 mL ⁽¹⁸⁾	
Rincage (KMnO ₄)	g	g	33.6 mL ⁽¹⁹⁾	g KMnO ₄ / 1.124 g/mL = mL KMnO ₄
Rincage (H ₂ O)	g	g	47.3 mL ⁽²⁰⁾	
Total (17 + 18 + 19 + 20) (Contenant 5 B)			281 mL ⁽²¹⁾	12 JUL14-A2-PAM-INC-(6+7)-14034.59

Company:	Aguia Verde	Control:	#5810	$\gamma = 96.22$	Ko = 9304	Duct:	Dia ("): 3.8	Port ("): 1.0
City:	Maricao Bank	Probe:	#5810	Cv = 785		Diameter:	Bef: 50	After: 20
Date:	13-07-14	Project:	R			Nozzle:	# 1/2	Dn = 498
Site:	Tricivon					Box:	#	
						Supposed moisture %	= 5%	"Hg
Test:	#3					Pressure:	Pbar ("Hg) = 29.80	"Hg
						Pstat ("H2O) = -10	"H2O @	"Hg

Point	Time	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (ft³)	Temperature					Vacuum (" Hg)	% ISO (%)	O2 (%)	Gases		
						Tmi (°F)	Tmo (°F)	Timp (°F)	Probe (°F)	Oven (°F)				CO2 (%)	CO (ppmv / %)	NOx (ppmv)
1	9:48	868	1070	189	46.36	75	75		850	850	-4.0	100.0				
		868	1070	189		75	75									
2	9:53	840	1070	91	49.94	77	75				-4.0	101.2				
		840	1070	91		77	75									
3	9:58	831	1070	92	53.58	79	76				-4.0	100.3				
		831	1070	92		79	76									
4	10:03	849	1070	91	57.31	83	77				-4.0	100.0				
		849	1070	91		83	77									
5	10:08	855	1070	91	60.82	86	78				-4.0	99.6				
		855	1070	91		86	78									
6	10:13	914	1065	181	64.42	87	80				-4.0	101.8				
		914	1065	181		87	80									
7	10:18	925	1065	181	67.90	89	82				-4.0	101.3				
		925	1065	181		89	82									
8	10:23	931	1065	181	71.36	90	82				-4.0	100.5				
		931	1065	181		90	82									
9	10:28	933	1065	181	74.77	94	85				-4.0	98.2				
		933	1065	181		94	85									
10	10:33	935	1065	181	78.16	95	86				-5.0	100.3				
		935	1065	181		95	86									
11	10:38	945	1070	180	81.60	95	87				-5.0	101.7				
		945	1070	180		95	87									
12	10:43	967	1070	185	85.21	97	88				-5.0	99.2	1			
		967	1070	185		97	88									
Constant => K= 31.50												A%= 109.36				

2. Donnerstag

SAMPLING DATA SHEET - MANUAL SAMPLING

Company: <u>Agnier energy</u>	Control: # <u>5810</u>	X = <u>7622</u>	Ko = <u>9304</u>	Duct: <u>34</u>	Dia ("): <u>34</u>	Port ("): <u>10</u>
City: <u>Moncton, E.C.</u>	Probe: # <u>2200</u>	Cv = <u>785</u>		Diameter: <u>50</u>	Bef: <u>50</u>	After: <u>24</u>
Date: <u>13-07-14</u>	Project: <u>R</u>	Nozzle: # <u>12</u>	Dn = <u>498</u>	Box: #	Sheet: <u>2</u>	of <u>3</u>
Site: <u>Incinerateur</u>		Supposed moisture % = <u>57</u>			Leak before: <u>0,0000</u>	"H2O @ <u>-15</u> " "Hg
Test: # <u>3</u>	<u>Moncton</u>	Pressure: Pbar ("Hg) = <u>29.80</u>	Pstat ("H2O) = <u>-10</u>		Leak after:	"H2O @ <u>-15</u> " "Hg

Point	Time	TS (°F)	▲ P (" H2O)	▲ H (" H2O)	Volume (ft³)	Temperature			Vacuum (" Hg)	% ISO (%)	Gases			
						Tmi (°F)	Tmo (°F)	Probe (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)	NOx (ppmv)
13	10:48	954	1080	98	88.71	93	88	250	-5.0	100.4	16.0	3.4	3	
		954	1080	98		93	88							
14	10:53	962	1080	98	92.51	93	89		-5.0	100.6				
		962	1080	98		93	89							
15	10:58	974	1080	97	96.31	97	90		-6.0	102.9				
		974	1080	97		97	90							
16	11:03	964	1080	98	100.20	94	90		-6.0	103.6				
		964	1080	98		94	90							
17	11:08	971	1085	104	104.12	96	91		-6.0	99.5	16.0	3.3	0	
		971	1085	104		96	91							
18	11:13	954	1085	103	108.00	97	91		-6.0	99.0				
19	11:18	954	1085	103	111.89	97	91							
1	12:48	791	1050	169	112.05	85	86	250	-6.0	100.8				
		791	1050	169		85	86							
2	12:53	791	1050	168	115.23	84	84		-6.0	100.8				
		791	1050	168		84	84							
3	12:58	792	1050	169	118.40	86	85		-6.0	99.6	16.4	3.0	3	
		792	1050	169		86	85							
4	13:03	813	1060	181	121.54	87	85		-6.0	99.8				
		813	1060	181		87	85							
5	13:08	922	1075	94	124.96	89	86		-6.0	97.6	16.5	3.2	0	
		922	1075	94		89	86							
6	13:13	924	1075	93	126.56	89	86		-6.0					
		924	1075	93		89	86							

Constant => K = 31.50 A% = 109.36

Sampler: S. Lapointe Sampler assistant: S. Deneau



SAMPLING DATA SHEET - MANUAL SAMPLING

Company: <u>Agnico Eagle</u>	Control: # <u>380</u>	Ko = <u>.9304</u>	Duct: <u>38</u>	Port: <u>10</u>
City: <u>Montreal</u>	Probe: # <u>215</u>	Cv = <u>.785</u>	Diameter: Bef: <u>50</u>	After: <u>25</u>
Date: <u>13-07-14</u>	Project: <u>R</u>	Box: # <u>3</u>	Sheet: <u>3</u>	of <u>3</u>
Site: <u>Incineration</u>	Supposed moisture % = <u>57</u>		Leak before: <u>"H2O @</u>	<u>"Hg</u>
Test: # <u>3</u>	Pressure: Pbar ("Hg) = <u>27.80</u>	Pstat ("H2O) = <u>-.10</u>	Leak after: <u>"H2O @</u>	<u>"Hg</u>

Point	Time	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (ft³)	Temperature				Vacuum (" Hg)	% ISO (%)	Gases		
						Tmi (°F)	Tmo (°F)	Temp (°F)	Oven (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)
7	13:18	930	1080	199	152.23	87	88	250	250	-8.0	99.1			
		930	1080	199		87	88			-8.0	102.0			
8	13:20	914	1080	101	152.00	91	88			-8.0				
		914	1080	101		91	88			-8.0				
9	13:22	929	1080	100	139.91	92	87			-8.0	102.4	16.0	3.6	4
		929	1080	100		92	87			-8.0				
10	13:24	926	1085	106	143.82	92	70			-8.0	77.9			
		926	1085	106		92	70			-8.0				
11	13:28	938	1090	109	147.76	92	91			-8.0	101.3	16.2	3.5	6
		938	1090	109		92	91			-8.0				
12	13:42	977	1090	109	151.80	93	91			-8.0	79.6			
		977	1090	109		93	91			-8.0				
13	13:48	982	1090	109	155.78	94	92			-8.0	99.1			
		982	1090	109		94	92			-8.0				
14	13:53	985	1095	114	159.74	92	91			-8.0	101.3			
		985	1095	114		92	91			-8.0				
15	13:58	979	1095	115	163.88	93	92			-8.0	98.4			
		979	1095	115		93	92			-8.0				
16	14:03	983	1100	121	167.92	93	92			-8.0	100.3	16.1	3.5	2
		983	1100	121		93	92			-8.0				
17	14:08	981	1100	121	172.14	94	93			-8.0	100.6			
		981	1100	121		94	93			-8.0				
18	14:13	977	1100	121	176.38	94	92			-8.0	99.3			
	14:18	977	1100	121	176.38	94	92			-8.0				
						Constant => K = 2150			A% = 109.3%					

WEIGHT SHEET

Company	Agnico-Eagle
Location	Baker Lake
Date	13 / 07 / 2014
Site	Outlet incinerator
Train #	
Test #	3 PAM

DATA	
Pbar: 30,21 po.Hg	
G	O ₂ % 16,17
A	CO ₂ % 3,36
	CO ppm 2,6
Z	CO %

	No.	Weight Final (g)	Weight Initial (g)	Weight Particulates
Filter	Q-430		151478	
Probe wash				
Cyclone				
			Weight (g)	

Impingers	Final weight	Initial weight	Water weight
1 H ₂ O	552,6	503,4	49,2
2 H ₂ O	560,6	520,4	40,2
3 HNO ₃ 5% / H ₂ O ₂ 10 %	614,6	594,8	19,8
4 HNO ₃ 5% / H ₂ O ₂ 10 %	572,2	565,3	6,9
5 Empty	471,6	468,6	3,0
6 KMnO ₄ 4% / H ₂ SO ₄ 10%	586,8	584,9	1,9
7 KMnO ₄ 4% / H ₂ SO ₄ 10%	636,1	638,9	-2,8
8 Silica gel	689,6	664,1	25,5
		Final weight	1437

Preparation	Prepared by	Recovered by	Approved by
Date	13-07-14	13-07-14	
On site	SL	SL	
Laboratory			

A1-20

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Gestion des volumes des Barboteurs

Barboteur #	Volume d'eau Condensé	Volume de solution Initiale	Total	Code
1	49.2 mL	+ 100 mL	149.2 mL ⁽¹⁾	
2	40.2 mL	+ 100 mL	140.2 mL ⁽²⁾	
Rinçage (poids)	g	g	36.9 mL ⁽³⁾	1 g d'eau = 1 mL
Sous total (1+2+3)			326.3 mL ⁽⁴⁾	
Aliquot (Contenant 3B)			(-) 100 mL ⁽⁵⁾	13 JUL14-A3-PAM-INC-(1+2-A)-14034.44
Volume final (4-5)			226.4 mL ⁽⁶⁾	
Divise par 20			divise par 20 ⁽⁷⁾	
Volume d'acide HNO ₃ conc. à ajouter			11 mL ⁽⁸⁾	
Volume final (5+6+8) (Contenant 3A)			236.4 mL ⁽⁹⁾	13 JUL14-A3-PAM-INC-(1+2-M1)-14034.45 JUL14-A3-PAM-INC-(1+2-M2)-14034.46
3	19.8 mL	+ 100 mL	119.8 mL ⁽¹⁰⁾	
4	6.9 mL	+ 100 mL	106.9 mL ⁽¹¹⁾	
Rinçage (poids)	g	g	33.6 mL ⁽¹²⁾	
Total (10 + 11 + 12) (Contenant 4)			260.3 mL ⁽¹³⁾	13 JUL14-A3-PAM-INC-(3+4-RM)-14034.47
5	3 mL	+ 0 mL	3.0 mL ⁽¹⁴⁾	
Rinçage (poids)	g	g	9.4 mL ⁽¹⁵⁾	
Total (14 + 15) (Contenant 5 A)			12.4 mL ⁽¹⁶⁾	13 JUL14-A3-PAM-INC-(5)-14034.48
6	1.9 mL	+ 100 mL	101.9 mL ⁽¹⁷⁾	
7	-2.8 mL	+ 100 mL	97.2 mL ⁽¹⁸⁾	
Rinçage (KMnO ₄)	g	g	39.1 mL ⁽¹⁹⁾	g KMnO ₄ / 1.124 g/mL = mL KMnO ₄
Rinçage (H ₂ O)	g	g	66.5 mL ⁽²⁰⁾	
Total (17 + 18 + 19 + 20) (Contenant 5 B)			304.7 mL ⁽²¹⁾	13 JUL14-A3-PAM-INC-(6+7)-14034.49

A3

AI-21

CALIBRATION OF SAMPLING MODULE

Module Identification:	SB_10
Inventory number:	
Atmospheric pressure ("Hg) :	29.90

Responsible calibration :	Sylvain Lapointe
Responsible data entry:	Simon Demers
Calibration date:	15-Jan-14
Next calibration date:	15-Jan-15

del.H in.H2O	Vw ft³	Vd ft³	Tw deg.F	Tdo deg.F	Td deg.F	time min.	del.m in.H2O	factor count.
1.0	5.00	5.34	71.60	89.00	89.75	6.98	-0.30	0.9992
1.0	5.00	5.35	71.60	89.00	89.80	6.96	-0.30	1.0006
1.5	5.00	5.33	71.60	89.50	89.75	5.63	-0.42	1.0006
1.5	5.00	5.34	71.60	89.50	89.80	5.63	-0.42	1.0006
2.0	5.00	5.34	71.60	88.00	88.80	4.90	-0.51	1.0006
2.0	5.00	5.34	71.60	89.00	89.25	4.90	-0.51	1.0006
2.5	9.00	9.57	71.60	87.50	87.75	7.90	-0.52	1.0006
2.5	10.00	10.65	71.60	87.00	88.75	8.78	-0.52	1.0006
3.0	10.00	10.71	71.60	87.00	89.75	8.06	-0.62	1.0006
3.0	13.00	13.95	71.60	88.00	90.75	10.48	-0.62	1.0006

del.H in.H2O	Vwc ft³	K	del.H@ in.H2O	Qm cfm	Ko	gamma	Acceptability criteria 1.50%	yes/no
1.0	5.00	0.7954	1.05	0.7368	0.9263	0.9639	0.17	yes
1.0	5.00	0.7954	1.04	0.7400	0.9303	0.9641	0.19	yes
1.5	5.00	0.9740	1.02	0.9142	0.9386	0.9661	0.41	yes
1.5	5.00	0.9740	1.02	0.9142	0.9386	0.9644	0.23	yes
2.0	5.00	1.1225	1.04	1.0461	0.9319	0.9613	0.10	yes
2.0	5.00	1.1235	1.03	1.0480	0.9328	0.9621	0.02	yes
2.5	9.01	1.2536	1.04	1.1654	0.9296	0.9624	0.02	yes
2.5	10.01	1.2531	1.04	1.1640	0.9289	0.9627	0.05	yes
3.0	10.01	1.3718	1.05	1.2661	0.9229	0.9576	0.48	yes
3.0	13.01	1.3731	1.05	1.2682	0.9236	0.9576	0.48	yes
AVERAGE			1.04	1.0263	0.9304	0.9622		

Reference method 1/RM/8

A1-22

Probe Identification: 2E EAU QUARTZ Calibration date 6-mars-14
 Inventory number 0 Calibration technician responsible S.Saake
 Data processing technician responsible S.Saake
 Barometric pressure: 29.76 "Hg
 Ambient temperature: 73.0 oF Ms : 28.73

NOZZLES	SCALE	PITOT REFERENCE del p	PITOT "S" TYPE del p	Vs ft/s	Cv
WITHOUT NOZZLE	1	0.725	1.030	57.489	0.839
	2	0.523	0.757	48.795	0.831
	3	0.360	0.524	40.510	0.829
	4	0.230	0.338	32.343	0.824
	5	0.128	0.195	24.121	0.809
	6	0.059	0.089	16.326	0.811
Dia. 1/8 No. 3	1	0.715	1.045	57.087	0.827
	2	0.520	0.763	48.651	0.825
	3	0.356	0.530	40.290	0.820
	4	0.228	0.343	32.195	0.815
	5	0.126	0.197	23.950	0.800
	6	0.058	0.091	16.214	0.798
Dia. 3/16 No. 3	1	0.717	1.045	57.151	0.828
	2	0.518	0.758	48.561	0.826
	3	0.357	0.527	40.319	0.823
	4	0.226	0.342	32.081	0.813
	5	0.124	0.196	23.788	0.796
	6	0.059	0.090	16.340	0.809
Dia. 1/4 No. 3	1	0.714	1.054	57.043	0.823
	2	0.520	0.770	48.651	0.822
	3	0.355	0.532	40.240	0.817
	4	0.227	0.339	32.131	0.817
	5	0.127	0.195	24.026	0.806
	6	0.057	0.089	16.129	0.802
Dia. 5/16 No. 3	1	0.718	1.049	57.187	0.827
	2	0.518	0.771	48.566	0.819
	3	0.353	0.529	40.086	0.817
	4	0.228	0.342	32.216	0.816
	5	0.127	0.197	24.064	0.804
	6	0.057	0.089	16.172	0.804
Dia. 3/8 No. 3	1	0.716	1.084	57.115	0.813
	2	0.516	0.783	48.477	0.811
	3	0.356	0.541	40.296	0.812
	4	0.226	0.348	32.081	0.806
	5	0.125	0.198	23.874	0.796
	6	0.058	0.090	16.200	0.800
Dia. 7/16 No. 3	1	0.721	1.086	57.306	0.815
	2	0.517	0.783	48.543	0.813
	3	0.356	0.540	40.245	0.811
	4	0.227	0.349	32.138	0.806
	5	0.126	0.199	23.960	0.797
	6	0.057	0.090	16.129	0.796
Dia. 1/2 No. 3	1	0.716	1.101	57.103	0.806
	2	0.517	0.794	48.519	0.807
	3	0.356	0.555	40.268	0.801
	4	0.226	0.356	32.110	0.798
	5	0.126	0.201	23.960	0.791
	6	0.056	0.091	16.002	0.785

NOTICE: Shows the average of three reading taken during calibration.

AI-23

**AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
SVOC**

Test ---	Date ----	Time -----	Filter mg	Probe mg	Cyclone mg	Vmeter ft ³	Dstack inches	Period minutes
1	July 11, 2014	12:59 - 16:35				125.30	38.00	5

O2 (% v/v) Dry basis	CO2 (% v/v) Dry basis	CO (ppmv) Dry basis	Vol. water mL	Pbar "Hg	Dnozzle inch	Cpitot ----	γ ----	Pstatic "H2O
17.39	2.49	6.4	85.2	29.74	0.498	0.785	0.9751	-0.10
SO2	H2							
0	0							

Traverse #1								
Point	Tstack °F	ΔP "H2O	ΔH "H2O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	782	0.065	1.44	79.44	64	64	95.1	20.6
	782	0.065	1.44	82.76	64	64		
2	784	0.070	1.55	82.76	65	65	91.6	21.4
	784	0.070	1.55	86.08	65	65		
3	788	0.070	1.55	86.08	68	65	97.2	21.5
	788	0.070	1.55	89.61	68	65		
4	783	0.070	1.56	89.61	69	66	99.9	21.4
	783	0.070	1.56	93.25	69	66		
5	797	0.070	1.55	93.25	73	67	99.7	21.5
	797	0.070	1.55	96.88	73	67		
6	801	0.080	1.77	96.88	78	68	92.4	23.1
	801	0.080	1.77	100.49	78	68		
7	816	0.075	1.65	100.49	80	70	96.1	22.5
	816	0.075	1.65	104.12	80	70		
8	765	0.065	1.50	104.12	83	71	99.1	20.5
	765	0.065	1.50	107.69	83	71		
9	761	0.070	1.62	107.69	82	73	95.6	21.2
	761	0.070	1.62	111.27	82	73		
10	775	0.070	1.60	111.27	82	74	95.7	21.3
	775	0.070	1.60	114.84	82	74		
11	756	0.065	1.52	114.84	86	77	96.8	20.4
	756	0.065	1.52	118.37	86	77		
12	757	0.070	1.63	118.37	86	76	92.9	21.2
	757	0.070	1.63	121.88	86	76		
13	757	0.070	1.63	121.88	81	78	93.5	21.2
	757	0.070	1.63	125.40	81	78		
14	733	0.070	1.66	125.40	83	77	91.7	21.0
	733	0.070	1.66	128.89	83	77		
15	738	0.070	1.65	128.89	80	78	94.4	21.0
	738	0.070	1.65	132.47	80	78		
16	747	0.070	1.64	132.47	79	78	93.8	21.1
	747	0.070	1.64	136.01	79	78		
17	740	0.060	1.41	136.01	79	78	93.5	19.5
	740	0.060	1.41	139.29	79	78		
18	725	0.060	1.43	139.29	78	78	94.2	19.4
	725	0.060	1.43	142.61	78	78		

Average	767	0.069	1.576	63.17	78	72	95.2	21.1
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AI-24

**AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
SVOC**

Test #1, Traverse #2								
Point	Tstack °F	ΔP "H ₂ O	ΔH "H ₂ O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	815	0.100	2.19	142.72	71	71	92.8	25.9
	815	0.100	2.19	146.73	71	71		
2	813	0.100	2.19	146.73	72	72	92.3	25.9
	813	0.100	2.19	150.73	72	72		
3	813	0.100	2.19	150.73	72	71	93.8	25.9
	813	0.100	2.19	154.79	72	71		
4	823	0.100	2.18	154.79	76	72	93.4	26.0
	823	0.100	2.18	158.84	76	72		
5	815	0.100	2.22	158.84	84	73	92.6	25.9
	815	0.100	2.22	162.90	84	73		
6	792	0.085	1.92	162.90	83	76	93.4	23.7
	792	0.085	1.92	166.72	83	76		
7	797	0.080	1.80	166.72	83	77	94.6	23.0
	797	0.080	1.80	170.47	83	77		
8	786	0.080	1.82	170.47	83	76	95.0	22.9
	786	0.080	1.82	174.25	83	76		
9	755	0.075	1.76	174.25	85	79	94.2	21.9
	755	0.075	1.76	177.94	85	79		
10	753	0.070	1.64	177.94	85	80	94.4	21.2
	753	0.070	1.64	181.52	85	80		
11	740	0.060	1.42	181.52	85	81	94.7	19.5
	740	0.060	1.42	184.87	85	81		
12	741	0.060	1.42	184.87	85	81	93.9	19.5
	741	0.060	1.42	188.19	85	81		
13	737	0.050	1.19	188.19	85	82	93.6	17.8
	737	0.050	1.19	191.22	85	82		
14	742	0.050	1.19	191.22	86	82	93.4	17.8
	742	0.050	1.19	194.24	86	82		
15	731	0.050	1.20	194.24	87	85	93.3	17.7
	731	0.050	1.20	197.28	87	85		
16	604	0.040	1.08	197.28	88	84	94.9	15.0
	604	0.040	1.08	200.21	88	84		
17	607	0.030	0.80	200.21	88	83	95.2	13.0
	607	0.030	0.80	202.75	88	83		
18	604	0.020	0.54	202.75	87	84	96.2	10.6
	604	0.020	0.54	204.85	87	84		

Average	748	0.069	1.597	62.13	83	78	94.0	20.7
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Ave. test	758	0.069	1.586	125.30	80	75	94.6	20.9
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Velocity		Volumetric flow rates				Temperature		Moisture
ft/s	m/s	ACFM	SDCFM	m ³ /h	Rm ³ /h	°F	°C	% v/v
20.9	6.4	9884	4191	16795	7122	758	403	3.2

Total part.	Gas sample volume		Verification of Isokinetic				
mg	SDCF	Rm ³	Nb readings	Nb non Iso	Nb < 90%	Nb > 110%	Iso max.
0	121.80	3.449	36	0	0	0	99.9
							91.6

Pstack "Hg	Pmeter "Hg	Md g/g-mole	Ms g/g-mole	Bwo -----	Ratio Vs max / Vs min -----	Vs max. ft/s	Vs min. ft/s
29.73	29.86	29.09	28.73	0.032	2.5	26.0	10.6

Particulate concentrations				Emission mass flow rate	
gr/ACF	gr/SDCF	mg/m ³	mg/Rm ³	lb/h	kg/h
0.000	0.000	0	0	0.0	0.0

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

AI-25

**AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
SVOC**

Test ---	Date ---	Time -----	Filter mg	Probe mg	Cyclone mg	Vmeter ft ³	Dstack inches	Period minutes
2	July 12, 2014	11:22 - 16:00				123.01	38.00	5

O2 (% v/v) Dry basis	CO2 (% v/v) Dry basis	CO (ppmv) Dry basis	Vol. water mL	Pbar "Hg	Dnozzle inch	Cpitot ---	γ ---	Pstatic "H2O
16.06	3.47	2.0	125.9	29.89	0.498	0.785	0.9751	-0.10
SO2	H2							
0	0							

Traverse #1								
Point	Tstack °F	ΔP "H2O	ΔH "H2O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	836	0.090	1.91	4.96	64	64	93.3	24.8
	836	0.090	1.91	8.64	64	64		
2	830	0.050	1.05	8.64	66	66	103.5	18.4
	830	0.050	1.05	11.71	66	66		
3	850	0.050	1.06	11.71	68	65	101.2	18.6
	850	0.050	1.06	14.69	68	65		
4	879	0.050	1.04	14.69	74	65	101.4	18.8
	879	0.050	1.04	17.66	74	65		
5	885	0.060	1.27	17.66	81	69	97.1	20.6
	885	0.060	1.27	20.80	81	69		
6	884	0.060	1.26	20.80	83	71	98.5	20.6
	884	0.060	1.26	24.00	83	71		
7	883	0.060	1.27	24.00	86	73	98.1	20.6
	883	0.060	1.27	27.20	86	73		
8	919	0.070	1.45	27.20	89	76	97.0	22.5
	919	0.070	1.45	30.59	89	76		
9	921	0.070	1.45	30.59	90	79	95.8	22.5
	921	0.070	1.45	33.95	90	79		
10	924	0.070	1.45	33.95	90	79	97.6	22.6
	924	0.070	1.45	37.37	90	79		
11	940	0.070	1.43	37.37	91	80	96.9	22.7
	940	0.070	1.43	40.75	91	80		
12	956	0.080	1.62	40.75	93	82	97.6	24.4
	956	0.080	1.62	44.38	93	82		
13	958	0.080	1.62	44.38	94	83	97.4	24.4
	958	0.080	1.62	48.01	94	83		
14	963	0.080	1.62	48.01	93	85	97.3	24.5
	963	0.080	1.62	51.63	93	85		
15	957	0.080	1.63	51.63	93	85	95.4	24.4
	957	0.080	1.63	55.19	93	85		
16	935	0.080	1.65	55.19	93	86	94.4	24.2
	935	0.080	1.65	58.74	93	86		
17	938	0.080	1.65	58.74	94	87	96.4	24.3
	938	0.080	1.65	62.37	94	87		
18	937	0.075	1.55	62.37	93	87	95.2	23.5
	937	0.075	1.55	65.84	93	87		
Average	911	0.070	1.443	60.88	85	77	97.4	22.4

AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
SVOC

Test #2, Traverse #2								
Point	Tstack °F	ΔP "H ₂ O	ΔH "H ₂ O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	1030	0.080	1.53	66.05	82	82	96.6	25.0
	1030	0.080	1.53	69.52	82	82		
2	1035	0.100	1.90	69.52	83	82	97.0	28.0
	1035	0.100	1.90	73.41	83	82		
3	1033	0.095	1.82	73.41	89	84	95.7	27.3
	1033	0.095	1.82	77.18	89	84		
4	1034	0.090	1.74	77.18	93	86	95.5	26.6
	1034	0.090	1.74	80.86	93	86		
5	1040	0.090	1.73	80.86	96	86	95.6	26.6
	1040	0.090	1.73	84.55	96	86		
6	999	0.090	1.79	84.55	98	89	95.2	26.3
	999	0.090	1.79	88.29	98	89		
7	975	0.095	1.92	88.29	99	89	95.5	26.8
	975	0.095	1.92	92.18	99	89		
8	975	0.095	1.92	92.18	99	89	95.3	26.8
	975	0.095	1.92	96.06	99	89		
9	974	0.095	1.92	96.06	98	88	95.4	26.8
	974	0.095	1.92	99.94	98	88		
10	973	0.090	1.82	99.94	98	88	95.4	26.0
	973	0.090	1.82	103.72	98	88		
11	926	0.070	1.46	103.72	98	87	94.6	22.6
	926	0.070	1.46	107.08	98	87		
12	923	0.070	1.47	107.08	98	88	95.5	22.6
	923	0.070	1.47	110.48	98	88		
13	928	0.070	1.46	110.48	99	88	94.8	22.6
	928	0.070	1.46	113.85	99	88		
14	926	0.060	1.26	113.85	99	88	95.6	20.9
	926	0.060	1.26	117.00	99	88		
15	922	0.060	1.26	117.00	98	88	92.8	20.9
	922	0.060	1.26	120.06	98	88		
16	946	0.050	1.03	120.06	98	88	92.8	19.2
	946	0.050	1.03	122.83	98	88		
17	750	0.045	1.08	122.83	98	89	94.9	16.9
	750	0.045	1.08	125.73	98	89		
18	675	0.030	0.77	125.73	98	89	95.0	13.4
	675	0.030	0.77	128.18	98	89		

Average	948	0.076	1.549	62.13	96	87	95.2	23.6
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Ave. test	929	0.073	1.496	123.01	90	82	96.3	23.0
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Velocity		Volumetric flow rates				Temperature		Moisture
ft/s	m/s	ACFM	SDCFM	m ³ /h	Rm ³ /h	°F	°C	% v/v
23.0	7.0	10865	3990	18462	6780	929	499	4.9

Total part.	Gas sample volume		Verification of Isokinetic				
mg	SDCF	Rm ³	Nb readings	Nb non Iso	Nb < 90%	Nb > 110%	Iso max.
0.00	118.27	3.349	36	0	0	0	103.5
							Iso min.
							92.8

Pstack "Hg	Pmeter "Hg	Md g/g-mole	Ms g/g-mole	Bwo	Ratio Vs max / Vs min	Vs max. ft/s	Vs min. ft/s
29.88	30.00	29.20	28.65	0.049	2.1	28.0	13.4

Particulate concentrations				Emission mass flow rate	
gr/ACF	gr/SDCF	mg/m ³	mg/Rm ³	lb/h	kg/h
0.000	0.000	0	0	0.0	0.0

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

**AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
SVOC**

Test ---	Date ---	Time -----	Filter mg	Probe mg	Cyclone mg	Vmeter ft ³	Dstack inches	Period minutes
3	July 13, 2014	09:48 - 14:18				118.75	38.00	5

O2 (% v/v) Dry basis	CO2 (% v/v) Dry basis	CO (ppmv) Dry basis	Vol. water mL	Pbar "Hg	Dnozzle inch	Cpitot ----	γ ----	Pstatic "H2O
16.17	3.36	2.6	110.4	30.21	0.498	0.785	0.9751	-0.10
SO2	H2							
0	0							

Traverse #1								
Point	Tstack °F	ΔP "H2O	ΔH "H2O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	945	0.080	1.58	48.75	67	68	97.0	24.2
	945	0.080	1.58	52.24	67	68		
2	945	0.085	1.68	52.24	73	67	96.1	24.9
	945	0.085	1.68	55.82	73	67		
3	926	0.075	1.50	55.82	72	67	95.7	23.2
	926	0.075	1.50	59.19	72	67		
4	945	0.075	1.49	59.19	77	69	98.3	23.4
	945	0.075	1.49	62.65	77	69		
5	951	0.090	1.79	62.65	80	69	94.4	25.7
	951	0.090	1.79	66.29	80	69		
6	914	0.070	1.44	66.29	84	72	96.2	22.4
	914	0.070	1.44	69.63	84	72		
7	914	0.065	1.34	69.63	85	72	96.5	21.5
	914	0.065	1.34	72.86	85	72		
8	925	0.065	1.33	72.86	89	75	95.3	21.6
	925	0.065	1.33	76.06	89	75		
9	927	0.065	1.33	76.06	89	75	94.8	21.6
	927	0.065	1.33	79.24	89	75		
10	923	0.070	1.44	79.24	91	77	98.6	22.4
	923	0.070	1.44	82.69	91	77		
11	926	0.070	1.44	82.69	91	78	97.2	22.5
	926	0.070	1.44	86.09	91	78		
12	928	0.070	1.44	86.09	91	79	98.0	22.5
	928	0.070	1.44	89.52	91	79		
13	897	0.060	1.27	89.52	93	81	97.9	20.6
	897	0.060	1.27	92.74	93	81		
14	890	0.060	1.28	92.74	94	82	97.8	20.5
	890	0.060	1.28	95.97	94	82		
15	892	0.060	1.28	95.97	94	82	98.2	20.5
	892	0.060	1.28	99.21	94	82		
16	890	0.060	1.28	99.21	96	84	94.7	20.5
	890	0.060	1.28	102.35	96	84		
17	893	0.060	1.28	102.35	96	85	96.8	20.5
	893	0.060	1.28	105.56	96	85		
18	883	0.060	1.29	105.56	95	85	96.3	20.5
	883	0.060	1.29	108.76	95	85		

Average	917	0.069	1.416	60.01	87	76	96.7	22.2
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AGNICO-EAGLE MINES LTD, MEADOWBANK DIVISION
BAKER LAKE, NUNAVUT
OUTLET OF INCINERATOR
SVOC

Test #3, Traverse #2								
Point	Tstack °F	ΔP "H ₂ O	ΔH "H ₂ O	Volume ft ³	Tinlet °F	Toutlet °F	Isokinetic %	Velocity ft/s
1	960	0.075	1.49	108.91	76	76	95.7	23.5
	960	0.075	1.49	112.28	76	76		
2	969	0.075	1.47	112.28	75	76	95.5	23.6
	969	0.075	1.47	115.63	75	76		
3	966	0.080	1.58	115.63	77	76	97.2	24.3
	966	0.080	1.58	119.16	77	76		
4	969	0.075	1.48	119.16	79	77	95.4	23.6
	969	0.075	1.48	122.52	79	77		
5	966	0.075	1.49	122.52	82	78	97.2	23.6
	966	0.075	1.49	125.96	82	78		
6	964	0.075	1.50	125.96	85	77	96.4	23.6
	964	0.075	1.50	129.38	85	77		
7	967	0.075	1.49	129.38	84	80	96.0	23.6
	967	0.075	1.49	132.79	84	80		
8	964	0.080	1.50	132.79	87	79	92.7	24.3
	964	0.080	1.50	136.20	87	79		
9	967	0.075	1.50	136.20	87	81	96.2	23.6
	967	0.075	1.50	139.63	87	81		
10	963	0.075	1.51	139.63	88	81	96.0	23.5
	963	0.075	1.51	143.06	88	81		
11	960	0.080	1.61	143.06	89	82	96.5	24.3
	960	0.080	1.61	146.63	89	82		
12	926	0.060	1.24	146.63	88	84	95.4	20.8
	926	0.060	1.24	149.73	88	84		
13	930	0.060	1.24	149.73	88	84	96.2	20.8
	930	0.060	1.24	152.85	88	84		
14	930	0.060	1.24	152.85	89	85	96.0	20.8
	930	0.060	1.24	155.97	89	85		
15	924	0.055	1.14	155.97	90	86	95.4	19.9
	924	0.055	1.14	158.95	90	86		
16	918	0.055	1.15	158.95	92	86	95.3	19.8
	918	0.055	1.15	161.94	92	86		
17	933	0.050	1.03	161.94	91	87	96.4	19.0
	933	0.050	1.03	164.81	91	87		
18	926	0.050	1.04	164.81	90	87	95.3	19.0
	926	0.050	1.04	167.65	90	87		

Average	950	0.068	1.372	58.74	85	81	95.8	22.3
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Ave. test	934	0.069	1.394	118.75	86	79	96.2	22.2
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Velocity		Volumetric flow rates				Temperature		Moisture
ft/s	m/s	ACFM	SDCFM	m ³ /h	Rm ³ /h	°F	°C	% v/v
22.2	6.8	10511	3910	17860	6643	934	501	4.4

Total part.	Gas sample volume		Verification of Isokinetic				
mg	SDCF	Rm ³	Nb readings	Nb non Iso	Nb < 90%	Nb > 110%	Iso max.
0.00	116.18	3.290	36	0	0	0	98.6
							92.7

Pstack "Hg	Pmeter "Hg	Md g/g-mole	Ms g/g-mole	Bwo	Ratio Vs max / Vs min	Vs max. ft/s	Vs min. ft/s
30.20	30.31	29.18	28.70	0.044	1.4	25.7	19.0

Particulate concentrations				Emission mass flow rate	
gr/ACF	gr/SDCF	mg/m ³	mg/Rm ³	lb/h	kg/h
0.000	0.000	0	0	0.0	0.0

"R" or "Reference Conditions" at 25°C, 101.3 kPa, dry basis.

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie: Agnico Eagle	Contrôle: #588	Y = 0.9754	Ko = 0.7204	Conduit: Dia ("): 38"	Porte ("): 10"
Endroit: Baker Lake	Sonde: #28	Cv = 0.785		Diamètre: Av: 50	Ap: 20
Date: 11-07-14 / Projet: R	Buse: #0.0008	Caisson #		Feuille: 1	de 4
Site: Incinérateur	Humidité supposée % = 5%			Fuite Avant: 0.0030	"H2O @ 13" Hg
Essai: 7 Suoc	Pression: Pbar ("Hg) =	Pstat ("H2O) = -0.10		Fuite Après:	"H2O @

Point	Heure	TS (°F)	▲ P (" H2O)	▲ H (" H2O)	Volume (pi³)	Température			Vacuum (" Hg)	% ISO (%)	Gaz		
						Tmi (°F)	Tmo (°F)	Temp (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)
1	12:59	78.2	0.065	1.44	79.44	64	64	52	250	251	-7.0	97.1	
2	13:04	78.2	0.065	1.44	82.76	65	65		247	271	-7.0	93.5	
3	13:09	78.8	0.070	1.55	86.08	68	65		246	249	-7.0	99.3	
4	13:14	78.3	0.070	1.56	89.61	69	66		250	242	-7.0	102.0	
5	13:19	79.7	0.070	1.55	93.25	73	67		249	246	-8.0	101.8	
6	13:24	80.1	0.080	1.77	96.88	78	68		248	245	-8.0	94.3	7.0
7	13:29	81.6	0.075	1.65	100.49	80	70	58	251	247	-8.0	98.1	
8	13:34	81.6	0.075	1.65	104.12	83	71		250	249	-8.0	101.2	
9	13:39	76.1	0.070	1.62	107.69	82	73		248	251	-9.0	97.6	17.4 2.5 17.0
10	13:44	77.5	0.070	1.60	111.27	82	74		247	245	-9.0	97.7	
11	13:49	75.6	0.065	1.52	114.85	86	77		248	247	-9.0	98.9	
12	13:54	75.7	0.070	1.63	118.37	86	76		244	246	-9.0	94.9	
		75.7	0.070	1.63		86	76						
						Constante => K = 52.075248			A% = 110.90				

DE

Échantillonneur: S. Demers

Assistant à l'échantillonneur:

Compagnie :	Agnico Eagle	Contrôle: #	588 Y = 0.975A	Ko = 0.720	Conduit: Dia ("):	38" Porte (")	10"
Endroit:	Baker Lake	Sonde: #	25 Cv = 0.785		Diamètre: Av:	50 Ap:	20
Date:	11-07-64	Projet: R	Buse: #	2542 Dn = 0.498	Caisson #	Feuille :	2 de 4
Site :	Incinerateurs		Humidité supposée % =	5%		Fuite Avant:	"H2O @ "Hg
Essai:	1 spec		Pression: Pbar ("Hg) =			Fuite Après:	"H2O @ "Hg
			Pstat ("H2O) =	- 0.10			

[illegible]

Constante =	$K = 52,48$	$A\% = 110,50$
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Assistant à l'échantillonneur:

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie :	Agnico Eagle	Contrôle: #	508	Y =	0.9754	Ko =	0.7204	Conduit: Dia (")	38"	Porte (")	10"
Endroit:	Baker Lake	Sonde: #	28	Cv =	0.785			Diamètre: Av:	50	Ap:	20
Date: 11-07-14	/Projet: R	Buse: #	2042	Dn =	0.498	Caisson #		Feuille: 3	de	4	
Site: Incinerator		Humidité supposée % =	5%					Fuite Avant: 0.0010	"H2O @	12	"Hg
Essai: 1500C		Pression: Pbar ("Hg) =				Pstat ("H2O) =	-0.10	Fuite Après:	"H2O @		"Hg

Point	Heure	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (pi³)	Température				Vacuum (" Hg)	% ISO (%)	Gaz		
						Tmi (°F)	Tmo (°F)	Temp (°F)	Four (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)

1	8:15 AM	815	0.100	2.19	142.72	71	71	254	261	-11.0	94.6			
2	8:15 AM	815	0.100	2.19	146.73	72	72	257	253	-11.0	94.1			
3	8:13	813	0.100	2.19	150.73	72	71	251	249	-12.0	95.6	17.6	2.3	0
4	8:23	823	0.100	2.18	154.79	76	70	250	247	-12.0	95.3			
5	8:23	823	0.100	2.18	158.84	84	73	249	245	-12.0	94.4			
6	7:52	792	0.085	1.92	162.90	83	76	248	247	-13.0	95.3			
7	7:52	792	0.085	1.92	166.72	83	76	254	257	-13.0	96.5	17.6	2.3	0
8	7:57	797	0.080	1.80	170.47	83	77	249	243	-13.0	97.0			
9	7:55	755	0.075	1.76	174.25	83	79	248	251	-13.0	96.1			
10	7:53	753	0.070	1.64	177.94	85	80	249	255	-13.0	96.3			
11	7:40	740	0.060	1.42	181.52	85	81	247	251	-13.0	96.8			
12	7:41	741	0.060	1.42	184.87	85	81	248	248	-13.0		17.1	2.7	0

Constante => K =	52.48	A% =	110.90
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Échantillonneur: S. Demers

Assistant à l'échantillonneur:

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie :	Agrico Eagle	Contrôle :	# 588	$\gamma = 0.975$	Ko = 0.7207	Conduit :	Dia (") :	28"	Porte (") :	10"
Endroit :	Baker Lake	Sonde :	# 2F	Cv = 0.785		Diamètre :	Av :	5.0	Ap :	2.0
Date :	11-07-14	Projet :	R			Buse :	# 202	Dn = 0.7207	Caisson #	
Site :	Incinerator					Humidité supposée % :	5%			
Essai :	1 SVOC					Pression :	Pbar ("Hg) =		Pstat ("H2O) =	- 0.10
						Fuite Avant :	"H2O @		"H2O @	18"
						Fuite Après :	0.0010		"H2O @	18"

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Échantillonneur: S. Owens

Assistant à l'échantillonneur:

WEIGHT SHEET

Company	Agnico-Eagle
Location	Baker Lake
Date	11 / 07 / 2014
Site	Incinerator
Train #	1 (SVOC-)
Test #	A1 (PCDD/DF)

DATA	
Pbar: 29.74 po.Hg	
G	O ₂ % 17.39
A	CO ₂ % 2.49
A	CO ppm 6.4
Z	CO %

ITEM	Final weight	Initial weight	Water weight
Cooler	119.3	119.2	0.1
XAD-2 resin	233.0	234.2	-1.2
Water trap	300.1	262.9	37.2
Impinger #1	654.2	617.6	36.6
Impinger #2	523.5	524.9	-1.4
Impinger #3 (silica gel)	719.1	705.2	13.9
Final weight			88.2

Preparation	Prepared by	Recovered	Approved by
Date		11-07-14	11-07-14
Laboratory			
On site		S. Demers	S. Demers

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie: <u>Amisco Englo</u>	Contrôle: <u>#283</u>	$\gamma = 0.915$	Ko = <u>0.720</u>	Conduit: Dia ("): <u>38"</u>	Porte ("): <u>10"</u>
Endroit: <u>Pointe Lake</u>	Sonde: <u>#2F</u>	Cv = <u>0.785</u>		Diamètre: Av: <u>50</u>	Ap: <u>20</u>
Date: <u>12-07-14</u>	Projet: <u>R</u>	Buse: <u>#Quartz Dn = 0.493</u>	Caisson # <u>7</u>	Feuille: <u>1</u>	de <u>3</u>
Site: <u>Immunodur</u>	Humidité supposée % = <u>5%</u>			Fuite Avant: <u>0.550</u>	"H2O @ <u>1.5"</u> "Hg
Essai: <u>2500</u>	Pression: <u>Pbar ("Hg) =</u>		Pstat ("H2O) = <u>-0.10</u>	Fuite Après: <u>"H2O @</u>	"Hg

Point	Heure	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (pi³)	Température				Vacuum (" Hg)	% ISO (%)	Gaz			
						Tmi (°F)	Tmo (°F)	Temp (°F)	Sonde (°F)	Four (°F)		O2 (%)	CO2 (%)	CO (ppmv / %)	NOx (ppmv)
1	11:22	836	0.07	1.91	4.26	64	64	54	247	211	93.5				
		836	0.07	1.91		64	64								
2	11:27	830	0.05	1.05	3.64	66	66	245	238		104.8	15.4	3.8	3	
		830	0.05	1.05		66	66								
3	11:32	830	0.05	1.06	11.71	68	65	249	249		101.4				
		830	0.05	1.06		68	65								
4	11:37	839	0.05	1.04	14.68	74	65	248	242		102.0	15.3	3.9	1	
		839	0.05	1.04		74	65								
5	11:42	835	0.06	1.27	17.06	81	69	245	245		96.3				
		835	0.06	1.27		81	69								
6	11:47	834	0.06	1.26	20.80	83	71	247	239		98.9				
		834	0.06	1.26		83	71								
7	11:52	833	0.06	1.27	24.00	86	73	250	245		98.4				
		833	0.06	1.27		86	73								
8	11:57	819	0.07	1.45	27.20	89	76	248	240		97.3	15.7	3.6	2	
		819	0.07	1.45		89	76								
9	12:02	821	0.07	1.45	30.59	90	79	246	244		96.1				
		821	0.07	1.45		90	79								
10	12:07	824	0.07	1.45	33.85	90	79	247	233		97.2				
		824	0.07	1.45		90	79								
11	12:12	840	0.07	1.43	37.37	91	80	250	253		97.2	16.0	3.7	4	
		840	0.07	1.43		91	80								
12	12:17	856	0.08	1.62	40.75	93	82	251	249		97.8				
		856	0.08	1.62		93	82								
1		956	0.08	1.62		93	82								

Constante => K = 52.18 A% = 110.90

DA Note: Il on fermé l'échantillon
dans le stack.
 Échantillonneur: S. Deneau

Assistant à l'échantillonneur:

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie :	Agrico Engle	Contrôle :	# 568 Y = 0.975A	Ko = 0.720A	Conduit :	Dia ("): 38"	Porte ("): 16"
Endroit :	Bakas Lake	Sonde :	# 2 F	Cv = 0.785	Diamètre :	Av: 50	Ap: 20
Date :	12-07-14 / Projet: R	Buse :	# 2012 Dn = 0.4013	Caisson #	Feuille :	2 de 3	
Site :	Trasimont	Humidité supposée % =	5%		Fuite Avant :	"H2O @	"Hg
Essai :	2500	Pression :	Pbar ("Hg) =	Pstat ("H2O) =	Fuite Après :	"H2O @	"Hg

Point	Heure	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (pi³)	Température				Vacuum (" Hg)	% ISO (%)	Gaz		
						Tmi (°F)	Tmo (°F)	Temp (°F)	Sonde (°F)	Four (°F)		O2 (%)	CO2 (%)	CO (ppmv / %)
13	12:22	958	0.08	1.62	44.38	91	83	54	250	250	97.7			
		958	0.08	1.62		91	83							
14	12:27	963	0.08	1.62	48.01	93	85		247	250	97.5			
		963	0.08	1.62		93	85							
15	12:32	957	0.08	1.63	51.63	93	85		251	249	95.7			
		957	0.08	1.63		93	85							
16	12:37	935	0.08	1.65	55.19	93	86		250	250	94.6			
		935	0.08	1.65		93	86							
17	12:40	938	0.08	1.65	58.74	94	87		249	252	96.7			
		938	0.08	1.65		94	87							
18	12:47	937	0.075	1.55	62.37	93	87		250	249	95.5			
		937	0.075	1.55		93	87							
1	14:30	1030	0.080	1.53	66.05	82	82	56	247	242	96.9			
		1030	0.080	1.53		82	82							
2	14:35	1035	0.100	1.90	69.52	83	82		241	247	97.2	16.3	3.2	2
		1035	0.100	1.90		83	82							
3	14:40	1033	0.095	1.82	73.41	89	84		246	247	95.2			
		1023	0.095	1.82		89	84							
4	14:45	1024	0.090	1.74	77.18	93	86		248	252	95.7			
		1024	0.090	1.74		93	86							
5	14:50	1010	0.090	1.73	80.86	96	86		246	249	95.2			
		1010	0.090	1.73		96	86							
6	14:55	999	0.090	1.73	84.55	98	85		250	252				
		999	0.090	1.73		98	85							

Constante => K = 52.418										A% = 110.90				
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Échantillonneur: S. Demers

Assistant à l'échantillonneur:

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie :	Agnico Eagle	Contrôle :	# 5588 Y = 0.975	Ko =	0.720	Conduit :	Dia ("):	38"	Porte ("):	10"	
Endroit :	Broken Lake	Sonde :	# 2 F	Cv =	0.788	Diamètre :	Av:	50	Ap:	20	
Date :	12-07-14	Projet :	R	Buse :	# 0.498	Caisson #		Feuille :	3	de	3
Site :	Tronçonnage	Humidité supposée % =	5%	Pression :	Pbar ("Hg) =			Fuite Avant:	"H2O @		"Hg
Essai :	2500							Fuite Après:	"H2O @	13	"Hg

Point	Heure	TS (°F)	ΔP (" H2O)	ΔH (" H2O)	Volume (pi³)	Température				Vacuum (" Hg)	% ISO (%)	Gaz			NOx ppmv
						Tmi (°F)	Tmo (°F)	Temp (°F)	Four (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)	
7	15:00	975	0.095	1.92	88.24	99	89	56	249	252	95.7	17.1	2.9	0	
		975	0.095	1.92		99	89								
8	15:05	975	0.095	1.92	92.18	99	89		246	250	95.5				
		975	0.095	1.92		99	89								
9	15:10	974	0.095	1.92	96.06	98	88		248	250	95.6				
		974	0.095	1.92		98	88								
10	15:15	973	0.090	1.82	99.94	98	88		247	251	95.7				
		973	0.090	1.82		98	88								
11	15:20	926	0.070	1.46	103.72	98	87		248	242		16.4	3.2	2	
		926	0.070	1.46		98	87								
12	15:25	923	0.070	1.47	107.08	98	88		249	252	95.8				
		923	0.070	1.47		98	88								
13	15:30	928	0.070	1.46	110.48	99	88	54	250	252	95.1				
		928	0.070	1.46		99	88								
14	15:35	926	0.060	1.26	113.85	99	88		250	249	95.9				
		926	0.060	1.26		99	88								
15	15:40	922	0.060	1.26	117.00	98	88		252	245	93.1				
		922	0.060	1.26		98	88								
16	15:45	946	0.050	1.03	120.06	98	88		251	247	93.3				
		946	0.050	1.03		98	88								
17	15:50	750	0.045	1.08	122.83	98	89		250	251	95.3				
		750	0.045	1.08		98	89								
18	15:55	675	0.030	0.77	125.73	98	89		247	253	95.5				
		675	0.030	0.77		98	89								
FIN	16:00	675	0.030	0.77	128.18	78	89								

Constante => K =	52.48	A% =	10.90
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Échantillonneur: S. Demers

Assistant à l'échantillonneur:

WEIGHT SHEET

Company	Agnico-Eagle
Location	Baker Lake
Date	12 / 07 / 2014
Site	Incineration
Train #	1 (SVOC-)
Test #	A2 (PCDD/DF)

DATA	
Pbar: 29.89 po.Hg	
G	O ₂ % 16.06
	CO ₂ % 3.47
A	CO ppm 2.0
Z	CO %

ITEM	Final weight	Initial weight	Water weight
Cooler	121.2	120.6	0.6
XAD-2 resin	197.7	194.1	3.6
Water trap	304.8	285.3	79.5
Impinger #1	636.1	608.5	27.6
Impinger #2	476.3	476.7	-0.4
Impinger #3 (silica gel)	717.8	702.8	15.0
		Final weight	125.9

Preparation	Prepared by	Recovered	Approved by
Date	12-07-14	12-07-14	
Laboratory			
On site	S. Demers	S. Demers	

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie :	Agrico Eude	Contrôle :	#288 Y = 0.7754	Ko = 0.7207	Conduit :	Dia ("):	38"	Porte ("):	10"
Endroit :	Broken Lakes	Sonde :	#2 F Cv = 0.7788		Diamètre :	Av :	50 Ap :	20	
Date :	13-07-14 / Projet : R	Buse :	#Quartz Dn = 0.4983	Caisson #	Feuille :	1	de	3	
Site :	Imcinerateur	Humidité supposée % =	5%		Fuite Avant :	0.0255	"H2O @	15	"Hg
Essai :	3500g	Pression :	Pbar ("Hg) =	Pstat ("H2O) =	Fuite Après :	0.10	"H2O @		"Hg

Point	Heure	TS (°F)	▲ P (" H2O)	▲ H (" H2O)	Volume (pi³)	Température				Vacuum (" Hg)	% ISO (%)	Gaz			
						Tmi (°F)	Tmo (°F)	Temp (°F)	Sonde (°F)	Four (°F)		O2 (%)	CO2 (%)	CO (ppmv / %)	NOx (ppmv)
1	9:48	94.5	0.080	1.58	48.75	67	68	55	245	253	-9.0	97.2			
2	9:53	94.5	0.080	1.58	52.24	73	67		250	248	-9.0	96.3			
3	9:58	94.5	0.085	1.68	55.82	72	67		251	253	-9.0	96.0			
4	10:03	94.5	0.075	1.47	59.19	77	69		250	252	-9.0	98.5			
5	10:08	95.1	0.090	1.79	62.95	80	69		248	251	-9.0	94.6			
6	10:13	94.4	0.070	1.44	66.29	84	72		247	251	-9.0	96.5			
7	10:18	94.4	0.070	1.44	69.63	85	72		248	255	-10.0	96.7			
8	10:23	94.4	0.065	1.34	72.86	89	75		251	248	-10.0	95.6			
9	10:28	92.7	0.065	1.33	76.06	89	75		254	260	-10.0	95.0			
10	10:33	92.3	0.070	1.44	79.24	91	77	56	251	243	-10.0	98.9			
11	10:38	92.6	0.070	1.44	82.69	91	78		247	240	-10.0	97.4			
12	10:43	92.8	0.070	1.44	86.09	91	75		250	242	-10.0	96.0	3.4	3	
1		92.8	0.070	1.44		91	79								
						Constante => K = 52.48				A% = 10.20					

D-30

Échantillonneur:

S. Demers

Assistant à l'échantillonneur:

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie :	Agnico Eagle	Contrôle :	#588	Y = 0.775	Ko = 0.720	Conduit :	Dia ("): 38"	Porte ("): 10"
Endroit :	Baker Lake	Sonde :	#2F	Cv = 0.785		Diamètre :	Av: 50	Ap: 20
Date :	13-07-14	Buse :	#0.000	Dn = 0.000	Caisson #	Feuille :	2	de 3
Site :	Incinerateur	Humidité supposée % :	5%			Fuite Avant :	"H2O @	"Hg
Essai :	3 Suoc	Pression :	Pbar ("Hg) =		Pstat ("H2O) =	Fuite Après :	0.000	"H2O @ 13 "Hg

Point	Heure	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (pi³)	Température				Vacuum (" Hg)	% ISO (%)	Gaz		
						Tmi (°F)	Tmo (°F)	Temp (°F)	Four (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)
13	10:48	897	0.060	1.27	89.52	93	81	55	247	250	-11.0	98.3		
		897	0.060	1.27		93	81							
14	10:53	890	0.060	1.28	92.74	94	82		247	252	-11.0	98.2		
		890	0.060	1.28		94	82							
15	10:58	892	0.060	1.28	95.97	94	82		250	250	-11.0	98.4		
		892	0.060	1.28		94	82							
16	11:03	890	0.060	1.28	99.21	96	84		247	250	-11.0	95.0		
		890	0.060	1.28		96	84							
17	11:08	893	0.060	1.28	102.35	96	85		247	253	-11.0	97.0	16.0	3.3
		893	0.060	1.28		96	85							
18	11:13	883	0.060	1.29	105.56	95	85		248	250	-11.0	96.7		
		883	0.060	1.29	108.76	95	85							
19	12:48	960	0.075	1.49	108.91	76	76	54	251	250	-11.0	95.7		
		960	0.075	1.49		76	76							
2	12:53	969	0.075	1.47	112.28	75	76		250	247	-11.0	95.8		
		969	0.075	1.47		75	76							
3	12:58	966	0.080	1.58	115.63	77	76		251	252	-12.0	97.4	16.4	3.0
		966	0.080	1.58		77	76							
4	13:03	969	0.075	1.48	119.16	79	77		250	252	-12.0	95.6		
		969	0.075	1.48		79	77							
5	13:08	966	0.075	1.49	122.52	82	78		247	250	-12.0	97.4	16.5	3.2
		966	0.075	1.49		82	78							
6	13:13	964	0.075	1.50	125.96	85	77		247	250	-12.0			
		964	0.075	1.50		85	77							

Constante => K = 50.42 A% = 110.00

D1

Échantillonneur: S. Demers

Assistant à l'échantillonneur:

40

DONNÉES DE TERRAIN - ÉCHANTILLONNAGE MANUEL

Compagnie :	Agnico Eagle	Contrôle: #5888	$\gamma = 0.9751$	Ko = 0.7207	Conduit: Dia ("): 38"	Porte ("): 10"
Endroit:	Baker Lake	Sonde: #25	Cv = 0.785		Diamètre: Av: 50	Ap: 20
Date:	13-07-14 / Projet: R	Buse: #24	Dn = 0.608	Caisson #	Feuille: 5	de 3
Site :	Incinerator	Humidité supposée % =	5%		Fuite Avant: "H2O @	"Hg
Essai:	3500C	Pression: Pbar ("Hg) =	-0.10	Pstat ("H2O) =	Fuite Après: 0.0000	"H2O @ 15
						"Hg

Point	Heure	TS (°F)	▲P (" H2O)	▲H (" H2O)	Volume (pi³)	Température				Vacuum (" Hg)	% ISO (%)	Gaz			
						Tmi (°F)	Tmo (°F)	Temp (°F)	Sonde (°F)			O2 (%)	CO2 (%)	CO (ppmv / %)	NOx ppmv
7	13:18	967	0.075	1.49	129.38	87	80	55	250	-12.0	96.2				
		967	0.075	1.49		87	80								
8	13:23	964	0.080	1.50	132.79	87	79		249	-12.0	96.0				
		964	0.080	1.50		87	79								
9	13:28	967	0.075	1.50	136.20	87	81		247	-12.0	96.5	16.0	3.6	4	
		967	0.075	1.50		87	81								
10	13:33	963	0.075	1.51	139.63	88	81		245	-12.0	96.2				
		963	0.075	1.51		88	81								
11	13:38	960	0.080	1.61	143.06	89	83		251	-13.0	96.7	16.2	3.5	6	
		960	0.080	1.61		89	82								
12	13:43	929	0.060	1.24	146.63	88	85		253	-13.0	95.7				
		929	0.060	1.24		88	85								
13	13:48	930	0.060	1.24	149.73	88	85	55	252	-13.0	96.5				
		930	0.060	1.24		88	85								
14	13:53	930	0.060	1.24	150.85	89	85		251	-13.0	96.3				
		930	0.060	1.24		89	85								
15	13:58	924	0.055	1.14	155.97	90	86		247	-13.0	95.9				
		924	0.055	1.14		90	86								
16	14:03	918	0.055	1.15	158.95	92	86		244	-13.0	95.6	16.1	3.5	2	
		918	0.055	1.15		92	86								
17	14:08	933	0.050	1.03	161.94	91	87		237	-13.0	96.8				
		933	0.050	1.03		91	87								
18	14:13	926	0.050	1.04	164.81	90	87		241	-13.0	95.6				
		926	0.050	1.04		90	87								
FIN	14:18	9250	0.050	1.04	167.65	90	87								
Constante => K = 52.43											A% = 110.90				

D
E

Échantillonneur:

S. Dore

Assistant à l'échantillonneur:

WEIGHT SHEET

Company	Agnico-Eagle
Location	Baker Lake
Date	13 / 07 / 2014
Site	Incinerateur
Train #	1 (SVOC-)
Test #	3 (PCDD/DF)

DATA	
Pbar: 30,21 po.Hg	
G	O ₂ % 16,17
	CO ₂ % 3,36
A	CO ppm 2,6
Z	CO %

ITEM	Final weight	Initial weight	Water weight
Cooler	118.1	117.5	0,6
XAD-2 resin	257,9	236.5	1,4
Water trap	325.9	256.2	69,7
Impinger #1	652.8	628.9	23,9
Impinger #2	467.0	468.2	-1,2
Impinger #3 (silica gel)	718.8	702.8	16,0
		Final weight	110,4

Preparation	Prepared by	Recovered	Approved by
Date	13-07-14	13-07-14	
Laboratory			
On site	S. Demers	S. Demers	

CALIBRATION OF SAMPLING MODULE

Module Identification:	SB_8
Inventory number:	0
Atmospheric pressure ("Hg) :	29.90

Responsible calibration :	B.Bouchard
Responsible data entry:	0
Calibration date:	25-févr-14
Next calibration date:	25-févr-15

del.H in.H2O	Vw ft³	Vd ft³	Tw deg.F	Tdo deg.F	Td deg.F	time min.	del.m in.H2O	factor count.
1.0	5.00	5.07	71.0	72.0	72.5	8.82	-0.30	1.0034
1.0	5.00	5.10	71.0	70.0	73.0	8.82	-0.30	1.0034
2.0	5.00	5.12	71.0	70.0	72.5	6.20	-0.50	1.0034
2.0	5.00	5.14	71.0	70.5	74.3	6.20	-0.50	1.0034
3.0	5.00	5.13	70.0	70.0	74.8	5.13	-0.70	1.0034
3.0	5.00	5.16	70.0	70.5	75.5	5.15	-0.70	1.0034
4.0	10.00	10.38	70.0	71.5	77.5	8.92	-0.10	1.0034
4.0	10.00	10.37	70.0	71.5	78.3	8.92	-0.10	1.0034
5.0	10.00	10.40	70.0	71.5	78.5	7.95	-1.40	1.0034
5.0	10.00	10.40	70.0	71.5	78.3	7.95	-1.40	1.0034

del.H in.H2O	Vwc ft³	K	del.H@ in.H2O	Qm cfm	Ko	gamma	Acceptability criteria 1.50%	yes/no
1.0	5.02	0.7830	1.74	0.5681	0.7255	0.9892	1.45	yes
1.0	5.02	0.7815	1.73	0.5659	0.7241	0.9843	0.95	yes
2.0	5.02	1.1039	1.71	0.8027	0.7272	0.9766	0.16	yes
2.0	5.02	1.1044	1.71	0.8035	0.7275	0.9760	0.10	yes
3.0	5.02	1.3503	1.75	0.9691	0.7177	0.9778	0.28	yes
3.0	5.02	1.3510	1.76	0.9663	0.7153	0.9735	0.16	yes
4.0	10.03	1.5595	1.75	1.1168	0.7161	0.9706	0.46	yes
4.0	10.03	1.5595	1.75	1.1168	0.7161	0.9728	0.23	yes
5.0	10.03	1.7415	1.74	1.2460	0.7155	0.9650	1.03	yes
5.0	10.03	1.7415	1.74	1.2460	0.7155	0.9646	1.07	yes
AVERAGE			1.74	0.9401	0.7201	0.9751		

Reference: Method 1/RM/8

A1-43

Probe Identification:	<u>2F EAU QUARTZ</u>	Calibration date	<u>6-mars-14</u>
Inventory number	<u>0</u>	Calibration technician responsible	<u>S.Saake</u>
		Data processing technician responsible	<u>S.Saake</u>
Barometric pressure:	<u>29.76 "Hg</u>		
Ambiant temperature:	<u>73.0 oF</u>	Ms :	<u>28.73</u>

NOZZLES	SCALE	PITOT REFERENCE del p	PITOT "S" TYPE del p	Vs ft/s	Cv
WITHOUT NOZZLE	1	0.720	1.054	57.266	0.826
	2	0.521	0.735	48.721	0.842
	3	0.357	0.539	40.341	0.814
	4	0.229	0.348	32.329	0.812
	5	0.128	0.196	24.168	0.808
	6	0.060	0.088	16.589	0.828
Dia. 1/8 No. 3	1	0.715	1.045	57.087	0.827
	2	0.520	0.763	48.651	0.825
	3	0.356	0.530	40.290	0.820
	4	0.228	0.343	32.195	0.815
	5	0.126	0.197	23.950	0.800
	6	0.058	0.091	16.214	0.798
Dia. 3/16 No. 3	1	0.717	1.045	57.151	0.828
	2	0.518	0.758	48.561	0.826
	3	0.357	0.527	40.319	0.823
	4	0.226	0.342	32.081	0.813
	5	0.124	0.196	23.788	0.796
	6	0.059	0.090	16.340	0.809
Dia. 1/4 No. 3	1	0.714	1.054	57.043	0.823
	2	0.520	0.770	48.651	0.822
	3	0.355	0.532	40.240	0.817
	4	0.227	0.339	32.131	0.817
	5	0.127	0.195	24.026	0.806
	6	0.057	0.089	16.129	0.802
Dia. 5/16 No. 3	1	0.718	1.049	57.187	0.827
	2	0.518	0.771	48.566	0.819
	3	0.353	0.529	40.086	0.817
	4	0.228	0.342	32.216	0.816
	5	0.127	0.197	24.064	0.804
	6	0.057	0.089	16.172	0.804
Dia. 3/8 No. 3	1	0.716	1.084	57.115	0.813
	2	0.516	0.783	48.477	0.811
	3	0.356	0.541	40.296	0.812
	4	0.226	0.348	32.081	0.806
	5	0.125	0.198	23.874	0.796
	6	0.058	0.090	16.200	0.800
Dia. 7/16 No. 3	1	0.721	1.086	57.306	0.815
	2	0.517	0.783	48.543	0.813
	3	0.356	0.540	40.245	0.811
	4	0.227	0.349	32.138	0.806
	5	0.126	0.199	23.960	0.797
	6	0.057	0.090	16.129	0.796
Dia. 1/2 No. 3	1	0.716	1.101	57.103	0.806
	2	0.517	0.794	48.519	0.807
	3	0.356	0.555	40.268	0.801
	4	0.226	0.356	32.110	0.798
	5	0.126	0.201	23.960	0.791
	6	0.056	0.091	16.002	0.785

NOTICE: Shows the average of three readings taken during calibration.

A1-44

ÉCHANTILLONNAGE DES OXIDES D'AZOTE
MÉTHODE ENVIRONNEMENT CANADA EPS-1-AP-77-3
DONNÉES DE CHANTIER

USINE : Agnico Eagle ENDROIT : Baker Lake
Source : Incinerateur DATE : 12-13-14 juillet 2014
Projet : R14-034 TECHNICIEN : S. Demers

Ballon	Heure	Vol. solution	Pbar initiale	Temps initial	Vide initial	Pbar finale	Temp. finale	Pression finale
12-07-2014		ml	'Hg	°C F	'Hg	'Hg	°C F	'H ₂ O
G-11	17:36	25	29.97	70,7	-24	30.22	81,0	-4,0
G-12	17:34	25	29.97	70,7	-24	30.22	81,0	-11,0
13-07-2014								
G-11	14:40	25	30.22	81,4	-24	30.17	79,0	-40,0
G+12	14:37	25	30.22	81,4	-24	30.17	79,0	-14,5

Technicien responsable :	Sy. La.
Date de l'étalonnage :	11-mars-14

Numéro du ballon	Poids		Volume du ballon
	Vide	Plein d'eau	

G-1			
G-2	538.36	2589.36	2051.00
G-3	573.87	2602.81	2028.94
G-4	513.45	2569.89	2056.44
G-5	581.13	2606.41	2025.28
G-6			
G-7	497.07	2567.94	2070.87
G-8			
G-9	858.73	2833.89	1975.16
G-10	471.42	2536.08	2064.66
G-11	469.35	2522.74	2053.39
G-12	481.83	2537.45	2055.62
G-20			
G-21	455.73	2538.80	2083.07

AI-46

Rapport des codes d'échantillons



Code échantillon	Projet	Date	Site de prélèvement	Test (description)	Paramètres
14034-4004	R14-034	16-juil-14	Incinerateur	Test #A1 SVOC (FH) 14034.1	PCDD/DF
14034-4005	R14-034	16-juil-14	Incinerateur	Test #A1 SVOC (F) 14034.2	PCDD/DF
14034-4006	R14-034	16-juil-14	Incinerateur	Test #A1 SVOC (X) 14034.3	PCDD/DF
14034-4007	R14-034	16-juil-14	Incinerateur	Test #A1 SVOC (FCR) 14034.4	PCDD/DF
14034-4008	R14-034	16-juil-14	Incinerateur	Test #A1 SVOC (C1) 14034.5	PCDD/DF
14034-4009	R14-034	16-juil-14	Incinerateur	Test #A1 SVOC (GR) 14034.7	PCDD/DF
14034-4010	R14-034	16-juil-14	Incinerateur	Test #A2 SVOC (FH) 14034.10	PCDD/DF
14034-4011	R14-034	16-juil-14	Incinerateur	Test #A2 SVOC (F) 14034.11	PCDD/DF
14034-4012	R14-034	16-juil-14	Incinerateur	Test #A2 SVOC (X) 14034.12	PCDD/DF
14034-4013	R14-034	16-juil-14	Incinerateur	Test #A2 SVOC (FCR) 14034.13	PCDD/DF
14034-4014	R14-034	16-juil-14	Incinerateur	Test #A2 SVOC (C1) 14034.14	PCDD/DF
14034-4015	R14-034	16-juil-14	Incinerateur	Test #A2 SVOC (GR) 14034.16	PCDD/DF
14034-4016	R14-034	16-juil-14	Incinerateur	Test #A3 SVOC (FH) 14034.20	PCDD/DF
14034-4017	R14-034	16-juil-14	Incinerateur	Test #A3 SVOC (F) 14034.21	PCDD/DF
14034-4018	R14-034	16-juil-14	Incinerateur	Test #A3 SVOC (X) 14034.22	PCDD/DF
14034-4019	R14-034	16-juil-14	Incinerateur	Test #A3 SVOC (FCR) 14034.23	PCDD/DF

Code échantillon	Projet	Date	Site de prélèvement	Test (description)	Paramètres
14034-4020	R14-034	16-juil-14	Incinerateur	Test #A3 SVOC (C1) 14034.24	PCDD/DF
14034-4021	R14-034	16-juil-14	Incinerateur	Test #A3 SVOC (GR) 14034.26	PCDD/DF
14034-4022	R14-034	16-juil-14	Incinerateur	Test #A3 SVOCBT (FH) 14034.30	PCDD/DF
14034-4023	R14-034	16-juil-14	Incinerateur	Test #A3 SVOCBT (F) 14034.31	PCDD/DF
14034-4024	R14-034	16-juil-14	Incinerateur	Test #A3 SVOCBT (X) 14034.32	PCDD/DF
14034-4025	R14-034	16-juil-14	Incinerateur	Test #A3 SVOCBT (FCR) 14034.33	PCDD/DF
14034-4026	R14-034	16-juil-14	Incinerateur	Test #A3 SVOCBT (C1) 14034.34	PCDD/DF
14034-4027	R14-034	16-juil-14	Incinerateur	Test #A3 SVOCBT (GR) 14034.35	PCDD/DF

Rapport des codes d'échantillons



Code échantillon	Projet	Date	Site de prélèvement	Test (description)	Paramètres
14034-4128	R14-034	28-juil-14	Incinérateur	Test #1 Filtre	Part., Métaux, Hg
14034-4129	R14-034	28-juil-14	Incinérateur	Test #1 Lav-sonde (ace)	Part., Métaux, Hg
14034-4130	R14-034	28-juil-14	Incinérateur	Test #1 Lav-sonde (HNO3 0.1N)	Métaux, Hg
14034-4131	R14-034	28-juil-14	Incinérateur	Test #1 Aliquot	HCl
14034-4132	R14-034	28-juil-14	Incinérateur	Test #1 Imp 1-2	Métaux, Hg
14034-4133	R14-034	28-juil-14	Incinérateur	Test #1 Imp 3-4	Métaux, Hg
14034-4134	R14-034	28-juil-14	Incinérateur	Test #1 Imp 5	Hg
14034-4135	R14-034	28-juil-14	Incinérateur	Test #1 Imp 6-7	Hg
14034-4136	R14-034	28-juil-14	Incinérateur	Test #2 Filtre	Part., Métaux, Hg
14034-4137	R14-034	28-juil-14	Incinérateur	Test #2 Lav-sonde (ace)	Part., Métaux, Hg
14034-4138	R14-034	28-juil-14	Incinérateur	Test #2 Lav-sonde (HNO3 0.1N)	Métaux, Hg
14034-4139	R14-034	28-juil-14	Incinérateur	Test #2 Aliquot	HCl
14034-4140	R14-034	28-juil-14	Incinérateur	Test #2 Imp 1-2	Métaux, Hg
14034-4141	R14-034	28-juil-14	Incinérateur	Test #2 Imp 3-4	Métaux, Hg
14034-4142	R14-034	28-juil-14	Incinérateur	Test #2 Imp 5	Hg
14034-4143	R14-034	28-juil-14	Incinérateur	Test #2 Imp 6-7	Hg

Code échantillon	Projet	Date	Site de prélèvement	Test (description)	Paramètres
14034-4144	R14-034	28-juil-14	Incinerateur	Test #3 Filtre	Part., Métaux, Hg
14034-4145	R14-034	28-juil-14	Incinerateur	Test #3 Lav-sonde (ace)	Part., Métaux, Hg
14034-4146	R14-034	28-juil-14	Incinerateur	Test #3 Lav-sonde (HNO3 0.1N)	Métaux, Hg
14034-4147	R14-034	28-juil-14	Incinerateur	Test #3 Aliquot	HCl
14034-4148	R14-034	28-juil-14	Incinerateur	Test #3 Imp 1-2	Métaux, Hg
14034-4149	R14-034	28-juil-14	Incinerateur	Test #3 Imp 3-4	Métaux, Hg
14034-4150	R14-034	28-juil-14	Incinerateur	Test #3 Imp 5	Hg
14034-4151	R14-034	28-juil-14	Incinerateur	Test #3 Imp 6-7	Hg
14034-4152	R14-034	28-juil-14	Incinerateur	Blanc filtre	Métaux, Hg
14034-4153	R14-034	28-juil-14	Incinerateur	Blanc HNO3 0.1N	Métaux, Hg
14034-4154	R14-034	28-juil-14	Incinerateur	Blanc eau	HCl
14034-4155	R14-034	28-juil-14	Incinerateur	Blanc H2O2/HNO3	Métaux, Hg
14034-4156	R14-034	28-juil-14	Incinerateur	Blanc KMnO4/H2SO4	Hg

Rapport des codes d'échantillons



Code échantillon	Projet	Date	Site de prélèvement	Test (description)	Paramètres
14034-4185	R14-034	29-juil-14	Incinérateur	Test #1 Ballon G-11	NOx
14034-4186	R14-034	29-juil-14	Incinérateur	Test #1 Ballon G-12	NOx
14034-4187	R14-034	29-juil-14	Incinérateur	Test #2 Ballon G-11	NOx
14034-4188	R14-034	29-juil-14	Incinérateur	Test #2 Ballon G-12	NOx

CLIENT NAME: EXOVA
1390 RUE HOCQUART
ST-BRUNO DE DE MONTARVILLE, QC J3V6E1
(450) 441-5880

ATTENTION TO: CHRISTIAN ST-PIERRE

PROJECT: R14-034

AGAT WORK ORDER: 14M848982

ULTRA TRACE REVIEWED BY: Philippe Morneau, chimiste

DATE REPORTED: 2014-06-18

VERSION*: 1

PAGES (INCLUDING COVER): 7

Should you require any information regarding this analysis please contact your client services representative at (514) 337-1000

*NOTES

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All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.

9770 ROUTE TRANSCANADIENNE
ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
FAX (514)333-3046
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 14M848982

PROJECT: R14-034

ATTENTION TO: CHRISTIAN ST-PIERRE
SAMPLING SITE:

CLIENT NAME: EXOVA

SAMPLED BY:

Dioxins & Furans - Air (Sampling Train - NATO 1988)

DATE REPORTED: 2014-06-18

DATE RECEIVED: 2014-06-06

SAMPLE DESCRIPTION: PROOF R14-034

SAMPLE TYPE: Liquid
DATE SAMPLED: 2014-06-06
G / S RDL 5450041

Parameter	Unit	G / S	RDL
2,3,7,8-TCDD (ppq)	pg	0.5	<0.5
1,2,3,7,8-PeCDD (ppq)	pg	0.5	<0.5
1,2,3,4,7,8-HxCDD (ppq)	pg	0.8	<0.8
1,2,3,6,7,8-HxCDD (ppq)	pg	0.8	<0.8
1,2,3,7,8,9-HxCDD (ppq)	pg	0.8	<0.8
1,2,3,4,6,7,8-HpCDD (ppq)	pg	1.5	<1.5
OCDD (ppq)	pg	1	<1
2,3,7,8-TCDF (ppq)	pg	0.4	<0.4
1,2,3,7,8-PeCDF (ppq)	pg	0.4	<0.4
2,3,4,7,8-PeCDF (ppq)	pg	0.4	<0.4
1,2,3,4,7,8-HxCDF (ppq)	pg	0.5	<0.5
1,2,3,6,7,8-HxCDF (ppq)	pg	0.5	<0.5
2,3,4,6,7,8-HxCDF (ppq)	pg	0.6	<0.6
1,2,3,7,8,9-HxCDF (ppq)	pg	1	<1
1,2,3,4,6,7,8-HpCDF (ppq)	pg	0.7	<0.7
1,2,3,4,7,8,9-HpCDF (ppq)	pg	1	<1
OCDF (ppq)	pg	1.5	<1.5
Total Tetrachlorodibenzodioxins	pg	0.5	<0.5
Total Pentachlorodibenzodioxins	pg	0.5	<0.5
Total Hexachlorodibenzodioxins	pg	0.8	1.3
Total Heptachlorodibenzodioxins	pg	1	1
Total PCDDs	pg	1.5	3
Total Tetrachlorodibenzofurans	pg	0.4	0.4
Total Pentachlorodibenzofurans	pg	0.4	<0.4
Total Hexachlorodibenzofurans	pg	1	<1
Total Heptachlorodibenzofurans	pg	1.5	<1.5
Total PCDFs	pg	1.5	<1.5
2,3,7,8-Tetra CDD (TEF 1.0)	TEQ	0	0



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AGAT CERTIFICATE OF ANALYSIS

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9770 ROUTE TRANSCANADIENNE
ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
FAX (514)333-3046
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 14M848982
PROJECT: R14-034

ATTENTION TO: CHRISTIAN ST-PIERRE
SAMPLING SITE:

CLIENT NAME: EXOVA

SAMPLED BY:

Dioxins & Furans - Air (Sampling Train - NATO 1988)

DATE REPORTED: 2014-06-18

DATE RECEIVED: 2014-06-06

SAMPLE DESCRIPTION: PROOF R14-034

SAMPLE TYPE: Liquid

DATE SAMPLED: 2014-06-06

G / S RDL 5450041

Parameter	Unit	TEQ
1,2,3,7,8-Penta CDD (TEF 0.5)	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
Octa CDD (TEF 0.001)	TEQ	0
2,3,7,8-Tetra CDF (TEF 0.1)	TEQ	0
1,2,3,7,8-Penta CDF (TEF 0.05)	TEQ	0
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
1,2,3,6,7,8-Hexa CDF (TEF 0.1)	TEQ	0
2,3,4,6,7,8-Hexa CDF (TEF 0.1)	TEQ	0
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
1,2,3,4,7,8,9-Hepta CDF (TEF 0.01)	TEQ	0
Octa CDF (TEF 0.001)	TEQ	0
Total PCDDs & PCDFs (TEQ)	TEQ	0

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ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
FAX (514)339-3046
http://www.agatlabs.com

Certificate of Analysis

AGAT WORK ORDER: 14M848982

PROJECT: R14-034

CLIENT NAME: EXOVA

SAMPLED BY:

ATTENTION TO: CHRISTIAN ST-PIERRE

SAMPLING SITE:

Dioxins & Furans - Air (Sampling Train - NATO 1988)				DATE REPORTED: 2014-06-18
DATE RECEIVED: 2014-06-06				
SAMPLE DESCRIPTION: PROOF R14-034				
SAMPLE TYPE: Liquid				
DATE SAMPLED: 2014-06-06				
Surrogate	Unit	Acceptable Limits	5450041	
13C-2378-TCDF	%	30-140	93	
13C-12378-PeCDF	%	30-140	99	
13C-23478-PeCDF	%	30-140	94	
13C-123478-HxCDF	%	30-140	80	
13C-123678-HxCDF	%	30-140	73	
13C-234678-HxCDF	%	30-140	74	
13C-123789-HxCDF	%	30-140	59	
13C-1234678-HpCDF	%	30-140	100	
13C-1234789-HpCDF	%	30-140	95	
13C-2378-TCDD	%	30-140	75	
13C-12378-PeCDD	%	30-140	86	
13C-123478-HxCDD	%	30-140	81	
13C-123678-HxCDD	%	30-140	74	
13C-1234678-HxCDD	%	30-140	87	
13C-OCDD	%	30-140	63	

Comments: RDL - Reported Detection Limit, G / S - Guideline / Standard

5450041

Le lab blank was subtracted from the sample results.

The results in Total pg correspond to the composite of all parts of the sampling train.



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Quality Assurance

CLIENT NAME: EXOVA
PROJECT: R14-034
SAMPLED BY:

AGAT WORK ORDER: 14M848982
ATTENTION TO: CHRISTIAN ST-PIERRE
SAMPLING SITE:

Ultra Trace Analysis

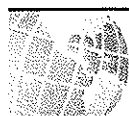
RPT Date: 2014-06-18			DUPLICATE			REFERENCE MATERIAL				METHOD BLANK			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD	Method Blank	Measure d Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper
Dioxins & Furans - Air (Sampling Train - NATO 1988)															
2,3,7,8-TCDD (ppq)	1	NA	NA	NA	0.0%	< 0.3	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8 PeCDD (ppq)	1	NA	NA	NA	0.0%	< 0.4	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,7,8 HxCDD (ppq)	1	NA	NA	NA	0.0%	< 1	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,6,7,8 HxCDD (ppq)	1	NA	NA	NA	0.0%	< 0.7	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8,9 HxCDD (ppq)	1	NA	NA	NA	0.0%	< 1	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,6,7,8 HpCDD (ppq)	1	NA	NA	NA	0.0%	< 1.5	NA	70%	130%	NA	70%	130%	NA	70%	130%
OCDD (ppq)	1	NA	NA	NA	0.0%	5.7	NA	70%	130%	NA	70%	130%	NA	70%	130%
2,3,7,8 TCDF (ppq)	1	NA	NA	NA	0.0%	< 0.2	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8 PeCDF (ppq)	1	NA	NA	NA	0.0%	< 0.3	NA	70%	130%	NA	70%	130%	NA	70%	130%
2,3,4,7,8-PeCDF (ppq)	1	NA	NA	NA	0.0%	< 0.3	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,7,8 HxCDF (ppq)	1	NA	NA	NA	0.0%	< 0.3	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,6,7,8 HxCDF (ppq)	1	NA	NA	NA	0.0%	< 0.3	NA	70%	130%	NA	70%	130%	NA	70%	130%
2,3,4,6,7,8-HxCDF (ppq)	1	NA	NA	NA	0.0%	< 0.8	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8,9 HxCDF (ppq)	1	NA	NA	NA	0.0%	< 1	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,6,7,8 HpCDF (ppq)	1	NA	NA	NA	0.0%	< 0.4	NA	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,7,8,9 HpCDF (ppq)	1	NA	NA	NA	0.0%	< 0.5	NA	70%	130%	NA	70%	130%	NA	70%	130%
OCDF (ppq)	1	NA	NA	NA	0.0%	< 1.5	NA	70%	130%	NA	70%	130%	NA	70%	130%

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Method Summary

CLIENT NAME: EXOVA

PROJECT: R14-034

SAMPLED BY:

AGAT WORK ORDER: 14M848982

ATTENTION TO: CHRISTIAN ST-PIERRE

SAMPLING SITE:

PARAMETER	DATE PREPARED	DATE ANALYZED	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Ultra Trace Analysis					
2,3,7,8-TCDD (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8 PeCDD (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8 HxCDD (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8 HxCDD (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9 HxCDD (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8 HpCDD (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
OCDD (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,7,8 TCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8 PeCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,7,8-PeCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8 HxCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8 HxCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,6,7,8-HxCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9 HxCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8 HpCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8,9 HpCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
OCDF (ppq)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Tetrachlorodibenzodioxins	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Pentachlorodibenzodioxins	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Hexachlorodibenzodioxins	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Heptachlorodibenzodioxins	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total PCDDs	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Tetrachlorodibenzofurans	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Pentachlorodibenzofurans	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Hexachlorodibenzofurans	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total Heptachlorodibenzofurans	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total PCDFs	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,7,8-Tetra CDD (TEF 1.0)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8-Penta CDD (TEF 0.5)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8-Hexa CDD (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8-Hexa CDD (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9-Hexa CDD (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8-Hepta CDD (TEF 0.01)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Octa CDD (TEF 0.001)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,7,8-Tetra CDF (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8-Penta CDF (TEF 0.05)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,7,8-Penta CDF (TEF 0.5)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8-Hexa CDF (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8-Hexa CDF (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,6,7,8-Hexa CDF (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9-Hexa CDF (TEF 0.1)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8-Hepta CDF (TEF 0.01)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8,9-Hepta CDF (TEF 0.01)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Octa CDF (TEF 0.001)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Total PCDDs & PCDFs (TEQ)	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-2378-TCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-12378-PeCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-23478-PeCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123478-HxCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS

AI-57



Method Summary

CLIENT NAME: EXOVA

PROJECT: R14-034

SAMPLED BY:

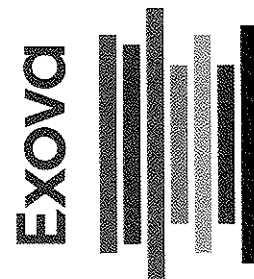
AGAT WORK ORDER: 14M848982

ATTENTION TO: CHRISTIAN ST-PIERRE

SAMPLING SITE:

PARAMETER	DATE PREPARED	DATE ANALYZED	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
13C-123678-HxCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-234678-HxCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123789-HxCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-1234678-HpCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-1234789-HpCDF	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-2378-TCDD	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-12378-PeCDD	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123478-HxCDD	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123678-HxCDD	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-1234678-HxCDD	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-OCDD	2014-06-13	2014-06-18	HR-151-5400	EPA 1613/EPA Method 23	HRMS

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Certificat d'analyses

Agnico-Eagle Mines Ltd, Meadowbank Division Baker Lake, Nunavut Stack sampling Project R14-034

Samples	Laboratory Number	Particle Matters (g)
---------	-------------------	----------------------

Detection limit	0.00004
-----------------	---------

Incinerator			
Test #1	Filter	14034-4128	0.07067
	Front wash	14034-4129	0.02686
Total			0.09753
Test #2	Filter	14034-4136	0.08538
	Front wash	14034-4137	0.03818
Total			0.12356
Test #3	Filter	14034-4144	0.05579
	Front wash	14034-4145	0.03158
Total			0.08737
Front wash blank (has not been subtracted from results)			0.00205

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Reception date : July 28th, 2014

Date of analysis : July 29th, 2014

Report date: July 30th, 2014

Reference method : A-01

File number: R14034-01 version 1



Christian St-Pierre, B. Sc. Chemist

Page 1 de 1

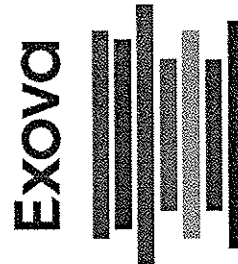
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T : +1 (418) 878-4927
F : +1 (418) 878-7185
E : ventes@exova.com
W : www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T : +1 (514) 697-3273
F : +1 (514) 697-2090
E : ventes@exova.com
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Certificate of Analysis

Request number: **14-611972**



Date Received: 2014-07-29

Date Certificate Issued: 2014-08-01

Certificate Version: 1

- ☒ Official Certificate of Analysis
☐ Preliminary Certificate of Analysis

Client

Exova

1390 rue Hocquart
St-Bruno, Québec, Canada
J3V 6E1
Telephone : (450) 441-5880
Fax : (450) 441-4316

P.O. Number	Your project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Comments

This certificate replaces and invalidates the preliminary version of the certificate (COA 609943).

This version replaces and cancels all earlier version.

NA : Information Not Available

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Certificate of Analysis No. 610223 - Revision 1 - Page 1 of 21



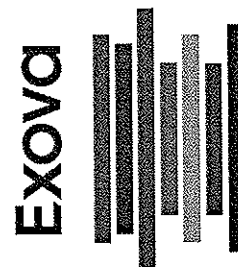
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Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635988	2635994	2636004	2636008
Your Reference	14034-4134 (15mL)+4135 (263mL)	14034-4142 (20mL)+4143 (281mL)	14034-4150 (12mL)+4151 (304mL)	14034-4156 (100mL)
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-11	2014-07-12	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Mercury (subcontract)

(Analysis done by sub-contracting)

Preparation	-	-	-	-
Analysis	-	-	-	-
Sequential No.	NA	NA	NA	NA
Mercury	<Annexe>	<Annexe>	<Annexe>	<Annexe>

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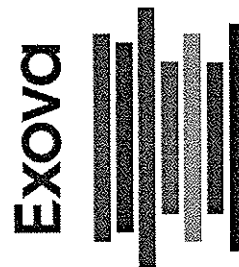
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635980	2635991	2635996	2636006
Your Reference	14034-4131 (278mL) #1	14034-4139 (321mL) #2	14034-4147 (326mL) #3	14034-4154 (128mL) Blanc
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-11	2014-07-12	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Chlorides (IC)

Anions by ion chromatography. (Non Accredited)
E-A-EN-EN-CHI-PC-MD028 (REF MA300-IONS 1.1 CEAEQ)

Chloride

Preparation	2014-07-30	2014-07-30	2014-07-30	2014-07-30
Analysis	2014-07-30	2014-07-30	2014-07-30	2014-07-30
Sequential No.	471987	471987	471987	471987
µg	79800	138000	96200	< 1280

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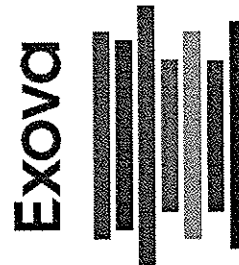
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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

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T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635985	2635986	2635992	2635993
Your Reference	14034-4132 (287mL)	14034-4133 (246mL)	14034-4140 (332mL)	14034-4141 (251mL)
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
	Imp 1-2	Imp 3-4	Imp 1-2	Imp 3-4
Date sampled	2014-07-11	2014-07-11	2014-07-12	2014-07-12
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Aluminum (Al)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&H1.2,CEAEQ)

Aluminum	µg	< 29	26	< 33	< 25
----------	----	------	----	------	------

Antimony (Sb)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&H1.2,CEAEQ)

Antimony	µg	< 3	< 2	< 3	< 3
----------	----	-----	-----	-----	-----

Arsenic (As)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&H1.2,CEAEQ)

Arsenic	µg	< 3	< 2	< 3	< 3
---------	----	-----	-----	-----	-----

Baryum (Ba)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&H1.2,CEAEQ)

Barium	µg	< 29	< 25	< 33	< 25
--------	----	------	------	------	------

Beryllium (Be)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&H1.2,CEAEQ)

Beryllium	µg	< 3	< 2	< 3	< 3
-----------	----	-----	-----	-----	-----

Bismuth (Bi)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&H1.2,CEAEQ)

Bismuth	µg	< 3	< 2	< 3	< 3
---------	----	-----	-----	-----	-----

Boron (B)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&H1.2,CEAEQ)

Boron	µg	< 57	< 49	< 66	< 50
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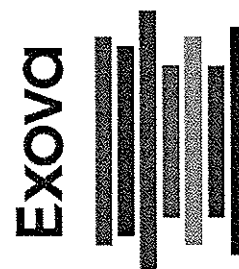
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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635985	2635986	2635992	2635993
Your Reference	14034-4132 (287mL)	14034-4133 (246mL)	14034-4140 (332mL)	14034-4141 (251mL)
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank <i>Imp 1-2</i>	Meadowbank <i>Imp 3-4</i>	Meadowbank <i>Imp 1-2</i>	Meadowbank <i>Imp 3-4</i>
Date sampled	2014-07-11	2014-07-11	2014-07-12	2014-07-12
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method

Reference

Cadmium (Cd)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Cadmium

µg

< 1.4

< 1.2

< 1.7

< 1.3

Calcium (Ca)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Calcium

µg

78

180

< 66

175

Chromium (Cr)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Chromium

µg

< 3

< 2

< 3

< 3

Cobalt (Co)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Cobalt

µg

< 3

< 2

< 3

< 3

Copper (Cu)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Copper

µg

< 3

< 2

< 3

< 3

Iron (Fe)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Iron

µg

< 144

< 123

< 166

< 126

Lead (Pb)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Lead

µg

< 3

< 2

< 3

< 3

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Certificate of Analysis No. 610223 - Revision 1 - Page 5 of 21

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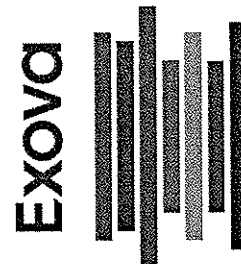
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Clair
Québec
Canada
H9R 1E6

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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635985	2635986	2635992	2635993
Your Reference	14034-4132 (287mL)	14034-4133 (246mL)	14034-4140 (332mL)	14034-4141 (251mL)
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-11	2014-07-11	2014-07-12	2014-07-12
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method				
Reference				
Lithium (Li)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Sequential No.	471911	471911	471911
Lithium	µg	< 3	< 2	< 3
Magnesium (Mg)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Sequential No.	471911	471911	471911
Magnesium	µg	6	39	5
Manganese (Mn)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Sequential No.	471911	471911	471911
Manganese	µg	< 3	211	< 3
Mercury (Hg)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Sequential No.	471911	471911	471911
Mercury	µg	< 0.3	< 0.2	< 0.3
Molybdenum (Mo)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Sequential No.	471911	471911	471911
Molybdenum	µg	< 3	< 2	< 3
Nickel (Ni)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Sequential No.	471911	471911	471911
Nickel	µg	< 3	< 2	< 3
Phosphorus (P)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Sequential No.	471911	471911	471911
Phosphorus	µg	< 287	< 246	< 332

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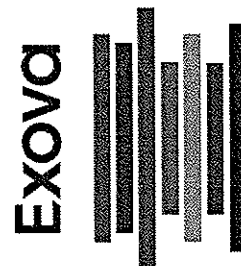
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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
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Québec
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635985	2635986	2635992	2635993
Your Reference	14034-4132 (287mL)	14034-4133 (246mL)	14034-4140 (332mL)	14034-4141 (251mL)
	#1		#2	
Matrix	Air		Air	
Sampled by	Exova St-Bruno		Exova St-Bruno	
Site sampled	Meadowbank		Meadowbank	
	Imp 1-2		Imp 1-2	
Date sampled	2014-07-11		2014-07-12	
Date received	2014-07-29		2014-07-29	

Parameter(s)

Method

Reference

Potassium (K)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Sequential No.	471911	471911	471911	471911
Potassium	µg	< 1440	< 1230	< 1660	< 1260
Selenium (Se)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Sequential No.	471911	471911	471911	471911
Selenium	µg	< 3	< 2	< 3	< 3
Silicon extractable (Si)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Sequential No.	471911	471911	471911	471911
Silicium	µg	< 144	< 123	< 166	< 126
Silver (Ag)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Sequential No.	471911	471911	471911	471911
Silver	µg	< 1.4	< 1.2	< 1.7	< 1.3
Sodium (Na)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Sequential No.	471911	471911	471911	471911
Sodium	µg	< 1440	< 1230	< 1660	< 1260
Strontium (Sr)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Sequential No.	471911	471911	471911	471911
Strontium	µg	< 3	< 2	< 3	< 3
Tellurium (Te)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Sequential No.	471911	471911	471911	471911
Tellurium	µg	< 3	< 2	< 3	< 3

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Certificate of Analysis No. 610223 - Revision 1 - Page 7 of 21

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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635985	2635986	2635992	2635993
Your Reference	14034-4132 (287mL)	14034-4133 (246mL)	14034-4140 (332mL)	14034-4141 (251mL)
Matrix	Air #1	Air	Air #2	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank Imp 1-2	Meadowbank Imp 3-4	Meadowbank Imp 1-2	Meadowbank Imp 3-4
Date sampled	2014-07-11	2014-07-11	2014-07-12	2014-07-12
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Thallium (Tl)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Thallium	µg	< 3	< 2	< 3	< 3
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Tin (Sn)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Tin	µg	< 3	21	< 3	24
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Titanium (Ti)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Titanium	µg	< 3	< 2	< 3	< 3
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Uranium (U)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Uranium	µg	< 3	< 2	< 3	< 3
---------	----	-----	-----	-----	-----

Vanadium (V)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Vanadium	µg	< 3	< 2	< 3	< 3
----------	----	-----	-----	-----	-----

Zinc (Zn)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Zinc	µg	< 20	< 17	< 23	< 18
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635997	2635998	2636007
Your Reference	14034-4148 (336mL)	14034-4149 (260mL)	14034-4155 (100mL)
	# 3		Blank
Matrix	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank
	Imp 1-2	Imp 3-4	
Date sampled	2014-07-13	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Aluminum (Al)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Aluminum

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 34	< 26	< 10

Antimony (Sb)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Antimony

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Arsenic (As)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Arsenic

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Baryum (Ba)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Barium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 34	< 26	< 10

Beryllium (Be)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Beryllium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Bismuth (Bi)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Bismuth

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Boron (B)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Boron

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 67	< 52	< 20

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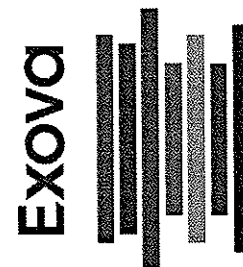
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova** Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635997	2635998	2636007
Your Reference	14034-4148 (336mL)	14034-4149 (260mL)	14034-4155 (100mL)
Matrix	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-13	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method

Reference

Cadmium (Cd)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Cadmium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 1.7	< 1.3	< 0.5

Calcium (Ca)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Calcium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 67	145	< 20

Chromium (Cr)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Chromium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Cobalt (Co)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Cobalt

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Copper (Cu)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Copper

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Iron (Fe)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Iron

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 168	< 130	< 50

Lead (Pb)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Lead

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

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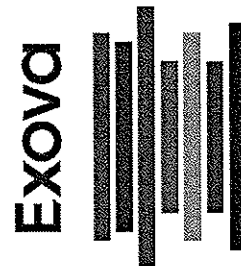
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635997	2635998	2636007
Your Reference	14034-4148 (336mL) <i># 3</i>	14034-4149 (260mL)	14034-4155 (100mL) <i>Blank</i>
Matrix	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank <i>Imp 1-2</i>	Meadowbank <i>Imp 3-4</i>	Meadowbank
Date sampled	2014-07-13	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Lithium (Li)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Lithium	µg	< 3	< 3	< 1
Magnesium (Mg)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Magnesium	µg	6	33	< 1
Manganese (Mn)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Manganese	µg	97	5	< 1
Mercury (Hg)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Mercury	µg	< 0.3	< 0.3	< 0.1
Molybdenum (Mo)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Molybdenum	µg	< 3	< 3	< 1
Nickel (Ni)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Nickel	µg	< 3	< 3	< 1
Phosphorus (P)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Phosphorus	µg	< 336	< 260	< 100

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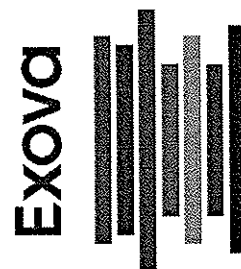
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635997	2635998	2636007
Your Reference	14034-4148 (336mL)	14034-4149 (260mL)	14034-4155 (100mL)
Matrix	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-13	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Potassium (K)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Potassium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 1680	< 1300	< 500

Selenium (Se)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Selenium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Silicon extractable (Si)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Silicium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 168	< 130	< 50

Silver (Ag)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Silver

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 1.7	< 1.3	< 0.5

Sodium (Na)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Sodium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 1680	< 1300	< 500

Strontium (Sr)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Strontium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

Tellurium (Te)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Tellurium

Preparation	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471911	471911	471911
µg	< 3	< 3	< 1

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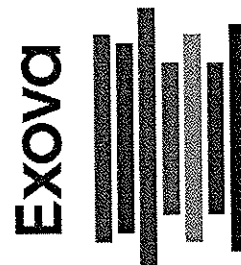
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635997	2635998	2636007
Your Reference	14034-4148 (336mL)	14034-4149 (260mL)	14034-4155 (100mL)
	#3		Blank
Matrix	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank
	Imp 1-2	Imp 3-4	
Date sampled	2014-07-13	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Thallium (Tl)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Thallium	µg	< 3	< 3	< 1
Tin (Sn)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Tin	µg	< 3	22	3
Titanium (Ti)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Titanium	µg	< 3	< 3	< 1
Uranium (U)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Uranium	µg	< 3	< 3	< 1
Vanadium (V)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Vanadium	µg	< 3	< 3	< 1
Zinc (Zn)	Preparation	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471911	471911	471911
Zinc	µg	< 24	< 18	< 7

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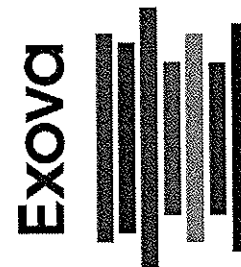
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635977	2635989	2635995	2636005
Your Reference	14034-4128+4129+4130	14034-4136+4137+4138	14034-4144+4145+4146	14034-4152+4153
	#1	#2	#3	Blank
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
	F+P	F+P	F+P	F+P
Date sampled	2014-07-11	2014-07-12	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Aluminum (Al)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Aluminum	µg	238	77	62	< 10
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Antimony (Sb)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Antimony	µg	22.9	12.3	15.3	< 0.5
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Arsenic (As)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Arsenic	µg	3.7	2.3	2.5	< 0.5
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Baryum (Ba)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Barium	µg	5.6	3.5	2.3	< 0.5
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Beryllium (Be)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Beryllium	µg	< 0.2	< 0.2	< 0.2	< 0.2
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Bismuth (Bi)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Bismuth	µg	< 5	5	< 5	< 5
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Boron (B)

Metals by ICP (not accredited)
E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)

Boron	µg	< 20	79	< 20	< 20
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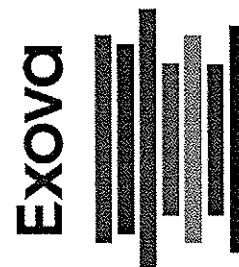
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635977	2635989	2635995	2636005
Your Reference	14034-4128+4129+4130	14034-4136+4137+4138	14034-4144+4145+4146	14034-4152+4153
Matrix	#1	#2	#3	Blank
Sampled by	Air	Air	Air	Air
Site sampled	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Date sampled	F+P	F+P	F+P	F+P
Date received	2014-07-11	2014-07-12	2014-07-13	2014-07-13
	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method

Reference

Cadmium (Cd)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)

Cadmium

Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471909	471909	471909	471909
µg	3.7	4.0	5.2	< 0.5

Calcium (Ca)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)

Calcium

Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471909	471909	471909	471909
µg	630	611	329	61

Chromium (Cr)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)

Chromium

Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471909	471909	471909	471909
µg	17.7	19.3	22.7	< 0.5

Cobalt (Co)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)

Cobalt

Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471909	471909	471909	471909
µg	17.0	5.7	1.9	0.6

Copper (Cu)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)

Copper

Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471909	471909	471909	471909
µg	57.2	67.7	52.8	< 0.5

Iron (Fe)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)

Iron

Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471909	471909	471909	471909
µg	190	138	113	3.6

Lead (Pb)

Metals by ICP (not accredited)

E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)

Lead

Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Sequential No.	471909	471909	471909	471909
µg	220	277	336	< 0.5

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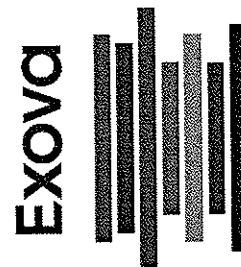
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635977	2635989	2635995	2636005
Your Reference	14034-4128+4129+4130	14034-4136+4137+4138	14034-4144+4145+4146	14034-4152+4153
Matrix	#1	#2	#3	Blank
Sampled by	Air	Air	Air	Air
Site sampled	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Date sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
Date received	F+P	F+P	F+P	F+P
	2014-07-11	2014-07-12	2014-07-13	2014-07-13
	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Lithium (Li)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Lithium	µg	9.7	11.7	9.3	< 0.5
Magnesium (Mg)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Magnesium	µg	157	68.9	65.6	4.1
Manganese (Mn)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Manganese	µg	5.2	6.5	4.6	0.4
Mercury (Hg)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Mercury	µg	< 0.1	< 0.1	< 0.1	< 0.1
Molybdenum (Mo)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Molybdenum	µg	4	5	4	< 1
Nickel (Ni)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Nickel	µg	2.7	2.6	2.0	< 0.5
Phosphorus (P)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Phosphorus	µg	< 100	< 100	< 100	< 100

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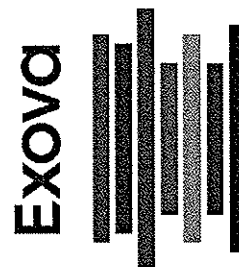
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635977	2635989	2635995	2636005
Your Reference	14034-4128+4129+4130	14034-4136+4137+4138	14034-4144+4145+4146	14034-4152+4153
	#1	#2	#3	Blank
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
	F+P	F+P	F+P	F+P
Date sampled	2014-07-11	2014-07-12	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Potassium (K)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Potassium	µg	21600	28900	23600	< 25
Selenium (Se)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Selenium	µg	0.9	1.2	1.5	< 0.5
Silicon (Si)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Silicon	µg	305	191	142	37
Silver (Ag)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Silver	µg	2.5	4.4	1.7	< 0.5
Sodium (Na)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Sodium	µg	11200	18900	13000	< 25
Strontium (Sr)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Strontium	µg	2.1	1.9	1.1	< 0.5
Tellurium (Te)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-M&t1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Tellurium	µg	< 1	< 1	< 1	< 1

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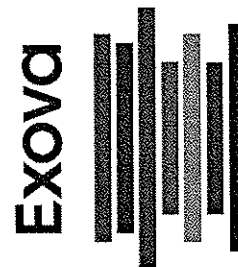
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
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Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635977	2635989	2635995	2636005
Your Reference	14034-4128+4129+4130 #1	14034-4136+4137+4138 #2	14034-4144+4145+4146 #3	14034-4152+4153 Blank
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank F+P	Meadowbank F+P	Meadowbank F+P	Meadowbank F+P
Date sampled	2014-07-11	2014-07-12	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

Thallium (Tl)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Thallium	µg	< 3	< 3	< 3	< 3
Tin (Sn)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Tin	µg	38.8	68.9	49.0	< 0.5
Titanium (Ti)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Titanium	µg	11.2	3.2	3.6	< 0.5
Uranium (U)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Uranium	µg	< 0.5	< 0.5	< 0.5	< 0.5
Vanadium (V)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Vanadium (V)	µg	0.5	0.3	0.5	< 0.1
Zinc (Zn)	Preparation	2014-07-29	2014-07-29	2014-07-29	2014-07-29
Metals by ICP (not accredited) E-A-EN-EN-CHI-PC-MD017 (REF:MA.200-Mét1.2,CEAEQ)	Analysis	2014-07-29	2014-07-29	2014-07-29	2014-07-29
	Sequential No.	471909	471909	471909	471909
Zinc	µg	540	513	532	0.8

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Certificate of Analysis No. 610223 - Revision 1 - Page 18 of 21

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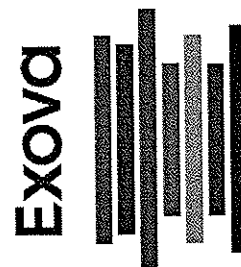
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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
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Certificate of Analysis

Client: **Exova** Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635980	2635985	2635986	2635991
Your Reference	14034-4131 (278mL)	14034-4132 (287mL)	14034-4133 (246mL)	14034-4139 (321mL)
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-11	2014-07-11	2014-07-11	2014-07-12
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method

Reference

Volume

Not applicable

Volume

Preparation	-	-	-	-
Analysis	-	-	-	-
Sequential No.	NA	NA	NA	NA
mL	278	287	246	321

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Certificate of Analysis No. 610223 - Revision 1 - Page 19 of 21



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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

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T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635992	2635993	2635996	2635997
Your Reference	14034-4140 (332mL)	14034-4141 (251mL)	14034-4147 (326mL)	14034-4148 (336mL)
Matrix	Air	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-12	2014-07-12	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method

Reference

Volume

Not applicable

Volume

Preparation	-	-	-	-
Analysis	-	-	-	-
Sequential No.	NA	NA	NA	NA
mL	332	251	321	336

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Certificate of Analysis No. 610223 - Revision 1 - Page 20 of 21



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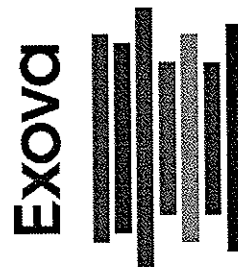
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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

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T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
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Certificate of Analysis

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Sample(s)

Lab. No.	2635998	2636006	2636007
Your Reference	14034-4149 (260mL)	14034-4154 (128mL)	14034-4155 (100mL)
Matrix	Air	Air	Air
Sampled by	Exova St-Bruno	Exova St-Bruno	Exova St-Bruno
Site sampled	Meadowbank	Meadowbank	Meadowbank
Date sampled	2014-07-13	2014-07-13	2014-07-13
Date received	2014-07-29	2014-07-29	2014-07-29

Parameter(s)

Method
Reference

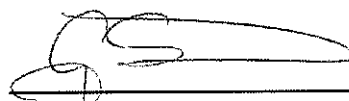
Volume


Not applicable

Volume

Preparation	-	-	-
Analysis	-	-	-
Sequential No.	NA	NA	NA
mL	260	128	100

Note 1: Results and comments, if any, relate only to samples submitted for analysis at the Pointe-Claire laboratory.


Genevieve Sevigny, chemist



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Certificate of Analysis No. 610223 - Revision 1 - Page 21 of 21

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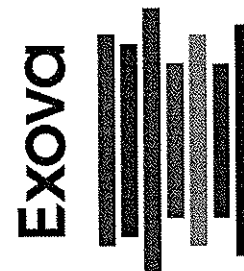
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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

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F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results (CQ)

Parameters (Sequential ID No.)	Units	RDL	Blank	Certified Control	
				Result	Expected Range
Chlorides (IC)					
Sequential ID No.: 471987					
Chloride	µg	< 100	< 100	479	446 - 604
Silver (Ag)					
Sequential ID No.: 471911					
Silver	µg	< 0.5	< 0.5	103	80 - 120
Silver (Ag)					
Sequential ID No.: 471909					
Silver	µg	< 0.5	< 0.5	NA	NA
Aluminum (Al)					
Sequential ID No.: 471911					
Aluminum	µg	< 10	< 10	101	80 - 120
Aluminum (Al)					
Sequential ID No.: 471909					
Aluminum	µg	< 10	< 10	NA	NA
Arsenic (As)					
Sequential ID No.: 471911					
Arsenic	µg	< 1	< 1	91	80 - 120
Arsenic (As)					
Sequential ID No.: 471909					
Arsenic	µg	< 0.5	< 0.5	NA	NA
Baryum (Ba)					
Sequential ID No.: 471911					
Barium	µg	< 10	< 10	105	80 - 120
Baryum (Ba)					
Sequential ID No.: 471909					
Barium	µg	< 0.5	< 0.5	NA	NA
Boron (B)					
Sequential ID No.: 471911					
Boron	µg	< 20	< 20	99	80 - 120
Beryllium (Be)					
Sequential ID No.: 471911					
Beryllium	µg	< 1	< 1	81	80 - 120
Beryllium (Be)					
Sequential ID No.: 471909					
Beryllium	µg	< 0.2	< 0.2	NA	NA

RDL : Reported Detection Limit

Appendix 1 of Certificate no.610223 - Page 1 of 6

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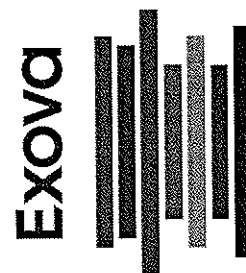
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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T : +1 (418) 878-4927
F : +1 (418) 878-7185
E : ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

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F : +1 (514) 697-2090
E : ventes@exova.com
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results (CQ)

Parameters (Sequential ID No.)	Units	RDL	Blank	Certified Control	
				Result	Expected Range
Boron (B)					
Sequential ID No.: 471909					
Boron	µg	< 20	< 20	NA	NA
Bismuth (Bi)					
Sequential ID No.: 471911					
Bismuth	µg	< 1	< 1	103	80 - 120
Bismuth (Bi)					
Sequential ID No.: 471909					
Bismuth	µg	< 5	< 5	NA	NA
Calcium (Ca)					
Sequential ID No.: 471911					
Calcium	µg	< 20	< 20	507	400 - 600
Calcium (Ca)					
Sequential ID No.: 471909					
Calcium	µg	< 1	< 1	NA	NA
Cadmium (Cd)					
Sequential ID No.: 471911					
Cadmium	µg	< 0.5	< 0.5	93.9	80 - 120
Cadmium (Cd)					
Sequential ID No.: 471909					
Cadmium	µg	< 0.5	< 0.5	NA	NA
Cobalt (Co)					
Sequential ID No.: 471911					
Cobalt	µg	< 1	< 1	91	80 - 120
Cobalt (Co)					
Sequential ID No.: 471909					
Cobalt	µg	< 0.5	< 0.5	NA	NA
Chromium (Cr)					
Sequential ID No.: 471911					
Chromium	µg	< 1	< 1	86	80 - 120
Chromium (Cr)					
Sequential ID No.: 471909					
Chromium	µg	< 0.5	< 0.5	NA	NA
Copper (Cu)					
Sequential ID No.: 471911					
Copper	µg	< 1	< 1	90	80 - 120

RDL : Reported Detection Limit

Appendix 1 of Certificate no.610223 - Page 2 of 6

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237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T : +1 (418) 878-4927
F : +1 (418) 878-7185
E : ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T : +1 (514) 697-3273
F : +1 (514) 697-2090
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results (CQ)

Parameters (Sequential ID No.)	Units	RDL	Blank	Certified Control	
				Result	Expected Range
Copper (Cu)					
Sequential ID No.: 471909					
Copper	µg	< 0.5	< 0.5	NA	NA
Iron (Fe)					
Sequential ID No.: 471911					
Iron	µg	< 50	< 50	98	80 - 120
Iron (Fe)					
Sequential ID No.: 471909					
Iron	µg	< 0.5	< 0.5	NA	NA
Mercury (Hg)					
Sequential ID No.: 471911					
Mercury	µg	< 0.1	< 0.1	4.8	4 - 6
Mercury (Hg)					
Sequential ID No.: 471909					
Mercury	µg	< 0.1	< 0.1	NA	NA
Potassium (K)					
Sequential ID No.: 471911					
Potassium	µg	< 500	< 500	491	400 - 600
Potassium (K)					
Sequential ID No.: 471909					
Potassium	µg	< 25	< 25	NA	NA
Lithium (Li)					
Sequential ID No.: 471911					
Lithium	µg	< 1	< 1	81	80 - 120
Lithium (Li)					
Sequential ID No.: 471909					
Lithium	µg	< 0.5	< 0.5	NA	NA
Magnesium (Mg)					
Sequential ID No.: 471911					
Magnesium	µg	< 1	< 1	506	400 - 600
Magnesium (Mg)					
Sequential ID No.: 471909					
Magnesium	µg	< 0.5	< 0.5	NA	NA
Manganese (Mn)					
Sequential ID No.: 471911					
Manganese	µg	< 1	< 1	85	80 - 120

RDL : Reported Detection Limit

Appendix 1 of Certificate no.610223 - Page 3 of 6

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Québec
Canada
G3A 2C8

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T : +1 (418) 878-4927
F : +1 (418) 878-7185
E : ventes@exova.com
W : www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T : +1 (514) 697-3273
F : +1 (514) 697-2090
E : ventes@exova.com
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results (CQ)

Parameters (Sequential ID No.)	Units	RDL	Blank	Certified Control	
				Result	Expected Range
Manganese (Mn)					
Sequential ID No.: 471909					
Manganese	µg	< 0.25	< 0.3	NA	NA
Molybdenum (Mo)					
Sequential ID No.: 471911					
Molybdenum	µg	< 1	< 1	98	80 - 120
Molybdenum (Mo)					
Sequential ID No.: 471909					
Molybdenum	µg	< 1	< 1	NA	NA
Sodium (Na)					
Sequential ID No.: 471911					
Sodium	µg	< 500	< 500	494	400 - 600
Sodium (Na)					
Sequential ID No.: 471909					
Sodium	µg	< 25	< 25	NA	NA
Nickel (Ni)					
Sequential ID No.: 471911					
Nickel	µg	< 1	< 1	88	80 - 120
Nickel (Ni)					
Sequential ID No.: 471909					
Nickel	µg	< 0.5	< 0.5	NA	NA
Phosphorus (P)					
Sequential ID No.: 471911					
Phosphorus	µg	< 100	< 100	98	80 - 120
Lead (Pb)					
Sequential ID No.: 471911					
Lead	µg	< 1	< 1	98	80 - 120
Lead (Pb)					
Sequential ID No.: 471909					
Lead	µg	< 0.5	< 0.5	NA	NA
Phosphorus (P)					
Sequential ID No.: 471909					
Phosphorus	µg	< 100	< 100	NA	NA
Antimony (Sb)					
Sequential ID No.: 471911					

RDL : Reported Detection Limit

Appendix 1 of Certificate no.610223 - Page 4 of 6

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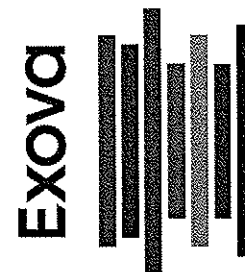
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Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
W: www.exova.com



Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results (CQ)

Parameters (Sequential ID No.)	Units	RDL	Blank	Certified Control	
				Result	Expected Range
Antimony	µg	< 1	< 1	95	80 - 120
Antimony (Sb)					
Sequential ID No.: 471909					
Antimony	µg	< 0.5	< 0.5	NA	NA
Selenium (Se)					
Sequential ID No.: 471911					
Selenium	µg	< 1	< 1	91	80 - 120
Selenium (Se)					
Sequential ID No.: 471909					
Selenium	µg	< 0.5	< 0.5	NA	NA
Silicon extractable (Si)					
Sequential ID No.: 471911					
Silicium	µg	< 50	< 50	486	400 - 600
Silicon (Si)					
Sequential ID No.: 471909					
Silicon	µg	< 1	< 1	NA	NA
Tin (Sn)					
Sequential ID No.: 471911					
Tin	µg	< 1	< 1	86	80 - 120
Tin (Sn)					
Sequential ID No.: 471909					
Tin	µg	< 0.5	< 0.5	NA	NA
Strontium (Sr)					
Sequential ID No.: 471911					
Strontium	µg	< 1	< 1	105	80 - 120
Strontium (Sr)					
Sequential ID No.: 471909					
Strontium	µg	< 0.5	< 0.5	NA	NA
Tellurium (Te)					
Sequential ID No.: 471911					
Tellurium	µg	< 1	< 1	85	80 - 120
Tellurium (Te)					
Sequential ID No.: 471909					
Tellurium	µg	< 1	< 1	NA	NA

RDL : Reported Detection Limit

Appendix 1 of Certificate no.610223 - Page 5 of 6

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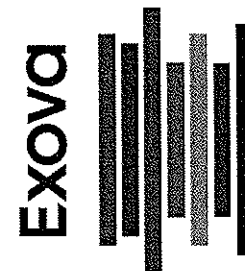
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

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F: +1 (514) 697-2090
E: ventes@exova.com
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results (CQ)

Parameters (Sequential ID No.)	Units	RDL	Blank	Certified Control	
				Result	Expected Range
Titanium (Ti)					
Sequential ID No.: 471911					
Titanium	µg	< 1	< 1	93	80 - 120
Titanium (Ti)					
Sequential ID No.: 471909					
Titanium	µg	< 0.5	< 0.5	NA	NA
Thallium (Tl)					
Sequential ID No.: 471911					
Thallium	µg	< 1	< 1	102	80 - 120
Thallium (Tl)					
Sequential ID No.: 471909					
Thallium	µg	< 2.5	< 3	NA	NA
Uranium (U)					
Sequential ID No.: 471911					
Uranium	µg	< 1	< 1	93	80 - 120
Uranium (U)					
Sequential ID No.: 471909					
Uranium	µg	< 0.5	< 0.5	NA	NA
Vanadium (V)					
Sequential ID No.: 471911					
Vanadium	µg	< 1	< 1	88	80 - 120
Vanadium (V)					
Sequential ID No.: 471909					
Vanadium (V)	µg	< 0.1	< 0.1	NA	NA
Zinc (Zn)					
Sequential ID No.: 471911					
Zinc	µg	< 7	< 7	91	80 - 120
Zinc (Zn)					
Sequential ID No.: 471909					
Zinc	µg	< 0.5	< 0.5	NA	NA

Comments

RDL : Reported Detection Limit

Appendix 1 of Certificate no.610223 - Page 6 of 6

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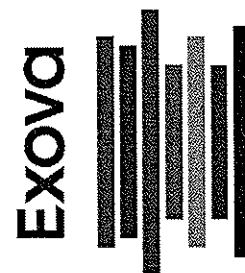
AI-86

Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
F: +1 (418) 878-7185
E: ventes@exova.com
W: www.exova.com

Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results - Part 2

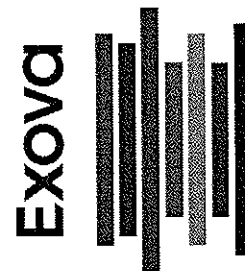
Parameters (Sequential ID No.)	Units	Duplicate		Difference (%)
		Value 1	Value 2	
Aluminum (Al)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Aluminum	µg	< 29	< 29	-
Antimony (Sb)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Antimony	µg	< 3	< 3	-
Arsenic (As)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Arsenic	µg	< 3	< 3	-
Barium (Ba)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Barium	µg	< 29	< 29	-
Beryllium (Be)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Beryllium	µg	< 3	< 3	-
Bismuth (Bi)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Bismuth	µg	< 3	< 3	-
Boron (B)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Boron	µg	< 57	< 57	-
Cadmium (Cd)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Cadmium	µg	< 1.4	< 1.4	-
Calcium (Ca)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Calcium	µg	78	76	2.6
Chlorides (Cl)				
Sequential ID No: 471987	(Sample no)		(2635980)	
Chloride	µg	79800	82300	3.1
Chromium (Cr)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Chromium	µg	< 3	< 3	-

Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

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Exova
121 Boulevard Hymus
Pointe-Claire
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H9R 1E6

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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results - Part 2

Parameters (Sequential ID No.)	Units	Duplicate		Difference (%)
		Value 1	Value 2	
Cobalt (Co)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Cobalt	µg	< 3	< 3	-
Copper (Cu)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Copper	µg	< 3	< 3	-
Iron (Fe)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Iron	µg	< 144	< 144	-
Lead (Pb)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Lead	µg	< 3	< 3	-
Lithium (Li)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Lithium	µg	< 3	< 3	-
Magnesium (Mg)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Magnesium	µg	6	5	18.2
Manganese (Mn)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Manganese	µg	< 3	< 3	-
Mercury (Hg)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Mercury	µg	< 0.3	< 0.3	-
Molybdenum (Mo)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Molybdenum	µg	< 3	< 3	-
Nickel (Ni)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Nickel	µg	< 3	< 3	-
Phosphorus (P)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Phosphorus	µg	< 287	< 287	-

Appendix 2 of certificate no.610223 - Page 2 of 4

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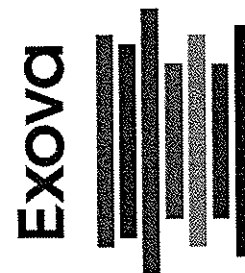
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
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Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
F: +1 (514) 697-2090
E: ventes@exova.com
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results - Part 2

Parameters (Sequential ID No.)	Units	Duplicate		Difference (%)
		Value 1	Value 2	
Potassium (K)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Potassium	µg	< 1440	< 1440	-
Selenium (Se)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Selenium	µg	< 3	< 3	-
Silicon extractable (Si)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Silicium	µg	< 144	< 144	-
Silver (Ag)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Silver	µg	< 1.4	< 1.4	-
Sodium (Na)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Sodium	µg	< 1440	< 1440	-
Strontium (Sr)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Strontium	µg	< 3	< 3	-
Tellurium (Te)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Tellurium	µg	< 3	< 3	-
Thallium (Tl)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Thallium	µg	< 3	< 3	-
Tin (Sn)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Tin	µg	< 3	< 3	-
Titanium (Ti)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Titanium	µg	< 3	< 3	-
Uranium (U)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Uranium	µg	< 3	< 3	-

Appendix 2 of certificate no.610223 - Page 3 of 4

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Results pertain only to the samples submitted for analysis.

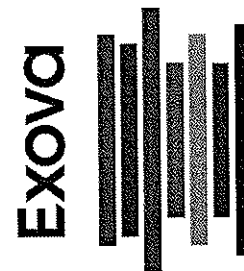
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Exova
237 rue de Liverpool
Saint-Augustin-de-Desmaures
Québec
Canada
G3A 2C8

Sans Frais: +1 (866) 365-2310
T: +1 (418) 878-4927
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Exova
121 Boulevard Hymus
Pointe-Claire
Québec
Canada
H9R 1E6

T: +1 (514) 697-3273
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Certificat d'analyses

Client: **Exova**

Request Number: **14-611972**

P.O. Number	Your Project ID.	Project Manager
NA	R14-034	M. Christian St-Pierre

Quality Control Results - Part 2

Parameters (Sequential ID No.)	Units	Duplicate		
		Value 1	Value 2	Difference (%)
Vanadium (V)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Vanadium	µg	< 3	< 3	-
Zinc (Zn)				
Sequential ID No: 471911	(Sample no)		(2635985)	
Zinc	µg	< 20	< 20	-

**SMⁱ**LABORATOIRES
D'ANALYSES
S.M. INC.

2350, Chemin du Lac
Longueuil, Québec J4N 1G8
Tél. (514) 332-6001 Téléc. (514) 332-5066

740, Galt Ouest, 2e étage
Sherbrooke, Québec J1H 1Z3
Tél. (819) 566-8855 Téléc. (819) 566-0224

3705, boul. Industriel
Sherbrooke, Québec J1L 1X8
Tél. (819) 566-8855 Téléc. (819) 566-0224

Annexe au certificat d'analyses

M902978 version 1

Description	Unités	Limite de détection	Blanc	Matériaux de référence		Récupération		Duplicata	
				% obtenu	limites (%)	% obtenu	limites (%)	% écart	limites (%)

Méthode d'analyse: Vapeur froide et AA / MA.203-Hg 1.0 / ILCE-032

Date d'analyse: 2014-07-30

No séquence: CS435719

		Blanc							
Mercuré (Hg)	mg/L	0.0002	<0.0002	106	80 - 120	-	-	-	-

A1-91

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D'ANALYSES
S.M. INC.2350, Chemin du Lac
Longueuil, Québec J4N 1G8
Tél. (514) 332-6001 Téléc. (514) 332-5066740, Galt Ouest, 2e étage
Sherbrooke, Québec J1H 1Z3
Tél. (819) 566-8855 Téléc. (819) 566-02243705, boul. Industriel
Sherbrooke, Québec J1L 1X8
Tél. (819) 566-8855 Téléc. (819) 566-0224**Certificat d'analyse**

No M902978, version 1

Émis le: 2014-07-31

Client: **EXOVA (Pte-Claire)**
Mme Geneviève Séigny
121, boul. Hymus
Pointe-Claire, Québec
H9R 1E6No client: 10596
Tél.: 514-697-3273
Téléc.:
No projet: 16404
Bon de commande: CT-046116
No dossier MDDEFP:Projet: Analyse d'extrait pour le mercure
Sous-projet: Analyse pour le mercure

Nature de l'échantillon: Air

No éch.	Description	Résultat	Unité	Norme	Analysé le
2323335	2635988				
	Prélevé le: 2014-07-11 Par: Client Reçu le: 2014-07-30				
	Mercure (Hg)	0.1440	mg/L	40,03 µg	2014-07-30
Remarques:	Les résultats sont exprimés en ug total. 278 mL				
2323336	2635994				
	Prélevé le: 2014-07-11 Par: Client Reçu le: 2014-07-30				
	Mercure (Hg)	0.8317	mg/L	250.34 µg	2014-07-30
Remarques:	Les résultats sont exprimés en ug total. 301 mL				
2323339	2636004				
	Prélevé le: 2014-07-11 Par: Client Reçu le: 2014-07-30				
	Mercure (Hg)	0.0978	mg/L	30.90 µg	2014-07-30
Remarques:	Les résultats sont exprimés en ug total. 316 mL				
2323342	2636008				
	Prélevé le: 2014-07-11 Par: Client Reçu le: 2014-07-30				
	Mercure (Hg)	<0.02	mg/L	< 2.00 µg	2014-07-30
Remarques:	Les résultats sont exprimés en ug total. 100 mL				

Méthode d'analyse	Description	Référence externe	Procédure interne
Mercure	Vapeur froide et AA	MA.203-Hg 1.0	ILCE-032





SM

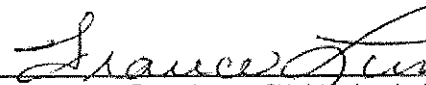

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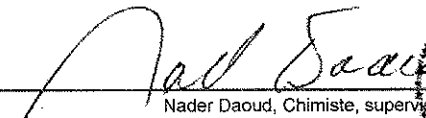

Certificat d'analyse (suite)

No M902978, version 1

Émis le: 2014-07-31


Denise Arbic, Chimiste, Chef de service
89-094



France Luneau, Chimiste, chargée de projet
1993-133



Nader Daoud, Chimiste, superviseur
89-106


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- (PNA) indique un Paramètre Non Accrédité.

NOM DU CLIENT: EXOVA
1390 RUE HOCQUART
ST-BRUNO DE DE MONTARVILLE, QC J3V6E1
(450) 441-5880

À L'ATTENTION DE: Claude Bélanger

N° DE PROJET: R14-034

N° BON DE TRAVAIL: 14M865864

HAUTE RÉOLUTION VÉRIFIÉ PAR: Marc-André Desjardins, chimiste

DATE DU RAPPORT: 2014-08-01

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**

A1-94

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.



AGAT Laboratoires

Certificat d'analyse

N° BON DE TRAVAIL: 14M865864

N° DE PROJET: R14-034

9770 ROUTE TRANSCANADIENNE
ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
FAX (514)333-3046
http://www.agatlabs.com

NOM DU CLIENT: EXOVA

PRÉLEVÉ PAR:

À L'ATTENTION DE: Claude Bélanger

LIEU DE PRÉLÈVEMENT:

Dioxines et furanes - Air (train d'échantillonnage - OTAN 1988)

DATE DE RÉCEPTION: 2014-07-17

DATE DU RAPPORT: 2014-08-01

Paramètre		Unités		C / N		LDR		DATE D'ÉCHANTILLONNAGE: 2014-07-16		MATRICE: Eau		LDR		2014-07-16		5595877		2014-07-16		5595923		2014-07-16		5595924	
IDENTIFICATION DE L'ÉCHANTILLON:		009		Eau		015		Eau		021		Eau		027		Eau		027		Eau		027		Eau	
14034-		4004+4005+400		6+4007+4008+4		14034-		4010+4011+401		2+4013+4014+4		14034-		4016+4017+401		8+4019+4020+4		14034-		4022+4023+402		4+4025+4026+4		14034-	
2,3,7,8-TCDD (pg total)		pg		2		4		1		7		2		7		0.8		7		0.8		0.8		7	
1,2,3,7,8-PeCDD (pg total)		pg		3		8		1		13		1		16		0.6		12.5		0.5		0.6		16	
1,2,3,4,7,8-HxCDD (pg total)		pg		0.8		5.8		1		9		0.9		12.5		0.5		36		0.5		0.5		36	
1,2,3,6,7,8-HxCDD (pg total)		pg		0.8		12.8		1		19		1		36		0.6		36		0.6		0.6		36	
1,2,3,7,8,9-HxCDD (pg total)		pg		0.8		20.6		1		16		1		36		0.6		36		0.6		0.6		36	
1,2,3,4,6,7,8-HpCDD (pg total)		pg		1		65		0.8		87.8		2		184		1		184		2		2		184	
OCDD (pg total)		pg		1		61		1		108		1		196		0.9		196		0.9		3.5		196	
2,3,7,8-TCDF (pg total)		pg		0.5		25.1		0.4		37.9		0.5		36.1		0.6		36.1		0.6		0.6		36.1	
1,2,3,7,8-PeCDF (pg total)		pg		2		18		1		28		2		31		0.4		31		0.4		0.4		31	
1,2,3,4,7,8-PeCDF (pg total)		pg		3		37		0.9		68.7		2		79		0.3		79		0.3		0.3		79	
1,2,3,4,7,8-HxCDF (pg total)		pg		2		63		0.6		118		0.9		176		0.5		176		0.5		0.5		176	
1,2,3,6,7,8-HxCDF (pg total)		pg		1		26		0.6		46.1		0.8		59.8		0.5		59.8		0.5		0.5		59.8	
1,2,3,4,6,7,8-HxCDF (pg total)		pg		2		45		0.6		71.9		0.9		103		0.6		103		0.6		0.6		103	
1,2,3,7,8,9-HxCDF (pg total)		pg		2		5		0.8		4.1		1		6		1		6		1		<1		6	
1,2,3,4,6,7,8-HpCDF (pg total)		pg		0.6		86.6		0.7		176		1		302		0.6		302		0.6		0.6		302	
1,2,3,4,7,8,9-HpCDF (pg total)		pg		0.8		14.7		0.9		20.9		1		28		0.9		28		0.9		<0.9		28	
OCDF (pg total)		pg		1		38		1		62		1		79		1		79		1		5		79	
Somme des Tétrachlorodibenzodioxines		pg		2		161		1		182		2		204		0.8		204		0.8		5.1		204	
Somme des Pentachlorodibenzodioxines		pg		3		188		1		202		1		392		0.6		392		0.6		4.1		392	
Somme des Hexachlorodibenzodioxines		pg		0.8		222		1		262		1		494		0.6		494		0.6		4.9		494	
Somme des Heptachlorodibenzodioxines		pg		1		154		0.8		214		2		452		1		452		1		2		452	
Somme des PCDDs		pg		3		786		1		968		2		1740		1		1740		1		19		1740	

AI-95



Certifié par:

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ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
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Certificat d'analyse

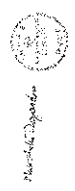
N° BON DE TRAVAIL: 14M865864
N° DE PROJET: R14-034



NOM DU CLIENT: EXOVA
PRÉLEVÉ PAR:

À L'ATTENTION DE: Claude Bélanger
LIEU DE PRÉLÈVEMENT:

Dioxines et furanes - Air (train d'échantillonnage - OTAN 1988)									
DATE DE RÉCEPTION: 2014-07-17					DATE DU RAPPORT: 2014-08-01				
Paramètre	Unités	C/N	LDR	DATE D'ÉCHANTILLONNAGE: 2014-07-16	14034- 4004+4005+400 6+4007+4008+4 009	14034- 4010+4011+401 2+4013+4014+4 015	14034- 4016+4017+401 8+4019+4020+4 021	14034- 4022+4023+402 4+4025+4026+4 027	14034- 2014-07-16 5595924
IDENTIFICATION DE L'ÉCHANTILLON: MATRICE: Eau									
DATE D'ÉCHANTILLONNAGE: 2014-07-16									
Paramètre	Unités	C/N	LDR	DATE D'ÉCHANTILLONNAGE: 2014-07-16	5595856	5595877	5595923	5595924	
Sommation des Tétrachlorodibenzofuranes	pg		0.5	599	0.4	1090	928	0.6	0.9
Sommation des Pentachlorodibenzofuranes	pg		3	361	1	625	756	0.4	<0.4
Sommation des Hexachlorodibenzofuranes	pg		2	272	0.8	459	675	1	<1
Sommation des Heptachlorodibenzofuranes	pg		0.8	151	0.9	272	443	0.9	<0.9
Sommation des PCDFs	pg		3	1420	1	2510	2880	1	6
1,2,3,7,8-Tetra CDD (TEF 1.0)	TEQ			3.94		7.22	6.74		0
1,2,3,7,8-Penta CDD (TEF 0.5)	TEQ			4.03		6.47	7.85		0
1,2,3,4,7,8-Hexa CDD (TEF 0.1)	TEQ			0.582		0.924	1.25		0
1,2,3,6,7,8-Hexa CDD (TEF 0.1)	TEQ			1.28		1.87	3.59		0
1,2,3,7,8,9-Hexa CDD (TEF 0.1)	TEQ			2.06		1.62	3.59		0
1,2,3,4,6,7,8-Hepta CDD (TEF 0.01)	TEQ			0.653		0.878	1.84		0.0146
Octa CDD (TEF 0.001)	TEQ			0.0615		0.108	0.196		0.00346
1,2,3,7,8-Tetra CDF (TEF 0.1)	TEQ			2.51		3.79	3.61		0
1,2,3,7,8-Penta CDF (TEF 0.05)	TEQ			0.905		1.41	1.55		0
1,2,3,4,7,8-Penta CDF (TEF 0.5)	TEQ			18.5		34.4	39.4		0
1,2,3,4,7,8-Hexa CDF (TEF 0.1)	TEQ			6.27		11.8	17.6		0
1,2,3,6,7,8-Hexa CDF (TEF 0.1)	TEQ			2.63		4.61	5.98		0
1,2,3,4,6,7,8-Hexa CDF (TEF 0.1)	TEQ			4.52		7.19	10.3		0
1,2,3,7,8,9-Hexa CDF (TEF 0.1)	TEQ			0.524		0.412	0.626		0
1,2,3,4,6,7,8-Hepta CDF (TEF 0.01)	TEQ			0.866		1.76	3.02		0
1,2,3,4,7,8,9-Hepta CDF (TEF 0.01)	TEQ			0.147		0.209	0.276		0
Octa CDF (TEF 0.001)	TEQ			0.0376		0.0623	0.0785		0.00460



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.

9770 ROUTE TRANSCANADIENNE
ST. LAURENT, QUEBEC
CANADA H4S 1V9
TEL (514)337-1000
FAX (514)333-3046
http://www.agatlab.com

Certificat d'analyse
N° BON DE TRAVAIL: 14M865864
N° DE PROJET: R14-034

AGAT Laboratoires

NOM DU CLIENT: EXOVA
PRÉLEVÉ PAR:

À L'ATTENTION DE: Claude Bélanger
LIEU DE PRÉLÈVEMENT:

Dioxines et furanes - Air (train d'échantillonnage - OTAN 1988)				DATE DU RAPPORT: 2014-08-01	
DATE DE RÉCEPTION: 2014-07-17		14034-		14034-	
Paramètre		4004+4005+4006+4007+4008+4		4016+4017+4018+4019+4020+4	
Unités		009		021	
C/N		Eau		Eau	
LDR		2014-07-16		2014-07-16	
Somme des PCDDs et PCDFs (TEQ)		5595856		5595923	
Étalon de recouvrement		49.5		107	
Unités		84.7		LDR	
Limites		2014-07-16		2014-07-16	
LDR		5595877		5595924	
Somme des PCDDs et PCDFs (TEQ)		84.7		0.0227	
Unités		85		89	
Limites		30-140		30-140	
LDR		85		89	
Unités		91		92	
Limites		30-140		30-140	
LDR		95		102	
Unités		71		71	
Limites		30-140		30-140	
LDR		88		76	
Unités		74		70	
Limites		30-140		30-140	
LDR		76		70	
Unités		69		74	
Limites		30-140		30-140	
LDR		76		70	
Unités		83		86	
Limites		30-140		30-140	
LDR		98		109	
Unités		87		81	
Limites		30-140		30-140	
LDR		85		86	
Unités		77		76	
Limites		30-140		30-140	
LDR		69		63	
Unités		85		89	
Limites		30-140		30-140	
LDR		85		89	
Unités		91		92	
Limites		30-140		30-140	
LDR		95		102	
Unités		71		71	
Limites		30-140		30-140	
LDR		88		76	
Unités		74		70	
Limites		30-140		30-140	
LDR		76		70	
Unités		69		74	
Limites		30-140		30-140	
LDR		76		70	
Unités		83		86	
Limites		30-140		30-140	
LDR		98		109	
Unités		87		81	
Limites		30-140		30-140	
LDR		85		86	
Unités		77		76	
Limites		30-140		30-140	
LDR		69		63	

Commentaires: LDR - Limite de détection rapportée; C/N - Critères Normes

5595856-5595924 Le blanc a été soustrait de l'échantillon.
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.

AGAT CERTIFICAT D'ANALYSE

Cette version remplace et annule toute version, le cas échéant. Ce document ne doit pas être reproduit, sinon en entier, sans l'autorisation écrite du laboratoire. Les résultats ne se rapportent qu'aux échantillons soumis pour analyse.

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Contrôle de qualité

NOM DU CLIENT: EXOVA

N° DE PROJET: R14-034

PRÉLEVÉ PAR:

N° BON DE TRAVAIL: 14M865864

À L'ATTENTION DE: Claude Bélanger

LIEU DE PRÉLÈVEMENT:

Analyse haute résolution

Date du rapport: 2014-08-01			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 - OTAN 1988)															
2,3,7,8-TCDD (pg total)	1	NA	NA	NA	0.0	< 1	130%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8 PeCDD (pg total)	1	NA	NA	NA	0.0	< 1	111%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,7,8 HxCDD (pg total)	1	NA	NA	NA	0.0	< 0.9	109%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,6,7,8 HxCDD (pg total)	1	NA	NA	NA	0.0	< 0.9	110%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8,9 HxCDD (pg total)	1	NA	NA	NA	0.0	< 0.9	106%	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	110%	70%	130%	NA	70%	130%	NA	70%	130%
OCDD (pg total)	1	NA	NA	NA	0.0	< 2	106%	70%	130%	NA	70%	130%	NA	70%	130%
2,3,7,8 TCDF (pg total)	1	NA	NA	NA	0.0	< 0.8	118%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8 PeCDF (pg total)	1	NA	NA	NA	0.0	< 0.6	111%	70%	130%	NA	70%	130%	NA	70%	130%
2,3,4,7,8-PeCDF (pg total)	1	NA	NA	NA	0.0	< 0.6	111%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,7,8 HxCDF (pg total)	1	NA	NA	NA	0.0	< 0.4	122%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,6,7,8 HxCDF (pg total)	1	NA	NA	NA	0.0	< 0.3	108%	70%	130%	NA	70%	130%	NA	70%	130%
2,3,4,6,7,8-HxCDF (pg total)	1	NA	NA	NA	0.0	< 0.4	121%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,7,8,9 HxCDF (pg total)	1	NA	NA	NA	0.0	< 0.6	127%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,6,7,8 HpCDF (pg total)	1	NA	NA	NA	0.0	< 1	122%	70%	130%	NA	70%	130%	NA	70%	130%
1,2,3,4,7,8,9 HpCDF (pg total)	1	NA	NA	NA	0.0	< 1	127%	70%	130%	NA	70%	130%	NA	70%	130%
OCDF (pg total)	1	NA	NA	NA	0.0	< 2	112%	70%	130%	NA	70%	130%	NA	70%	130%

Certifié par:

Parishia Legendre


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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: EXOVA

N° DE PROJET: R14-034

PRÉLEVÉ PAR:

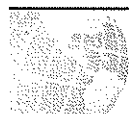
N° BON DE TRAVAIL: 14M865864

À L'ATTENTION DE: Claude Bélanger

LIEU DE PRÉLÈVEMENT:

PARAMÈTRE	PRÉPARÉ LE	ANALYSÉ LE	AGAT P.O.N.	RÉFÉRENCE DE LITTÉRATURE	TECHNIQUE ANALYTIQUE
Analyse haute résolution					
2,3,7,8-TCDD (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8 PeCDD (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8 HxCDD (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8 HxCDD (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9 HxCDD (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8 HpCDD (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
OCDD (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,7,8 TCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8 PeCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,7,8-PeCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8 HxCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8 HxCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,6,7,8-HxCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9 HxCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8 HpCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8,9 HpCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
OCDF (pg total)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Tétrachlorodibenzodioxines	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Pentachlorodibenzodioxines	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Hexachlorodibenzodioxines	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Heptachlorodibenzodioxines	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des PCDDs	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Tétrachlorodibenzofuranes	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Pentachlorodibenzofuranes	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Hexachlorodibenzofuranes	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des Heptachlorodibenzofuranes	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommation des PCDFs	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,7,8-Tetra CDD (TEF 1.0)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8-Penta CDD (TEF 0.5)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8-Hexa CDD (TEF 0.1)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8-Hexa CDD (TEF 0.1)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9-Hexa CDD (TEF 0.1)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8-Hepta CDD (TEF 0.01)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Octa CDD (TEF 0.001)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,7,8-Tetra CDF (TEF 0.1)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8-Penta CDF (TEF 0.05)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,7,8-Penta CDF (TEF 0.5)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8-Hexa CDF (TEF 0.1)	2014-07-28	2014-07-31	HR_151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,6,7,8-Hexa CDF (TEF 0.1)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
2,3,4,6,7,8-Hexa CDF (TEF 0.1)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,7,8,9-Hexa CDF (TEF 0.1)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,6,7,8-Hepta CDF (TEF 0.01)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
1,2,3,4,7,8,9-Hepta CDF (TEF 0.01)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS

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Sommaire de méthode

NOM DU CLIENT: EXOVA

N° DE PROJET: R14-034

PRÉLEVÉ PAR:

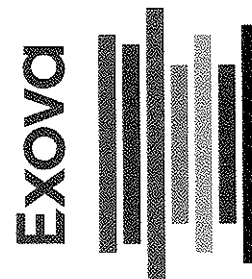
N° BON DE TRAVAIL: 14M865864

À L'ATTENTION DE: Claude Bélanger

LIEU DE PRÉLÈVEMENT:

PARAMÈTRE	PRÉPARÉ LE	ANALYSÉ LE	AGAT P.O.N.	RÉFÉRENCE DE LITTÉRATURE	TECHNIQUE ANALYTIQUE
Octa CDF (TEF 0.001)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
Sommaton des PCDDs et PCDFs (TEQ)	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-2378-TCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-12378-PeCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-23478-PeCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123478-HxCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123678-HxCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-234678-HxCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123789-HxCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-1234678-HpCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-1234789-HpCDF	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-2378-TCDD	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-12378-PeCDD	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123478-HxCDD	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-123678-HxCDD	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-1234678-HxCDD	2014-07-28	2014-07-31	HR-151-5400	EPA 1613/EPA Method 23	HRMS
13C-OCDD	2014-07-28	2014-07-31	HR-151-5400	CEAEQ MA.400 - DF 1.0	HRMS

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Certificat d'analyses

Agnico-Eagle Mines Ltd, Meadowbank Division **Baker Lake, Nunavut** **Stack sampling** **Project R14-034**

Samples	Laboratory Number	NOx (µg)
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Detection limit	4
-----------------	---

Incinerator			
Test #1	Flask G-11	14034-4185	< 4
Test #1	Flask G-12	14034-4186	4
Test #2	Flask G-11	14034-4187	12
Test #2	Flask G-12	14034-4188	14

Note : This report should not be reproduced, totally or partially, without written laboratory authorization.

Reception date : July 29th, 2014

Date of analysis : July 31th, 2014

Report date: August 01st, 2014

Reference method : non accredited

File number: 14034-02 version 1



Christian St-Pierre, B. Sc. Chemist
Page 1 de 1

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