

## **Appendix 39**

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# **Meadowbank and Whale Tail 2018 Air Quality and Dustfall Monitoring Report**

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MEADOWBANK GOLD PROJECT

**2018 Air Quality and Dustfall  
Monitoring Report**

In Accordance with NIRB Project Certificates No.004 and No.008

Prepared by:  
Agnico Eagle Mines Limited – Meadowbank Division

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## EXECUTIVE SUMMARY

The 2018 air quality and dustfall monitoring program at Meadowbank was conducted according to the Air Quality and Dustfall Monitoring Plan - Version 3 (May, 2018).

The objective of this program is to measure dustfall, NO<sub>2</sub>, and/or suspended particulates (TSP, PM<sub>10</sub>, PM<sub>2.5</sub>) at various monitoring locations around the Meadowbank and Whale Tail sites, Meadowbank All-Weather Access Road (AWAR), and Whale Tail Haul Road (WTHR). Meadowbank locations were established in 2011 in consultation with Environment Canada, AWAR locations were established between 2012 and 2016, and Whale Tail locations were established in 2018.

Results obtained for the measured parameters were compared to Government of Nunavut (GN) Environmental Guidelines for Ambient Air Quality (October, 2011) for TSP, PM<sub>2.5</sub> and NO<sub>2</sub>; BC Air Quality Objectives (August, 2013) for PM<sub>10</sub>; and Alberta Ambient Air Quality Guidelines (August, 2013) for dustfall. The Canadian Ambient Air Quality Standards for PM<sub>2.5</sub> (2015) are also referenced. AWAR transects are sampled to determine effectiveness of dust suppressants, and track changes in generation of road dust. WTHR transects are sampled to verify predictions made in the Environmental Impact Statement for that project (Golder, 2016).

In total, 3 of 75 TSP samples on the Meadowbank site exceeded the relevant 24-h GN standard of 120 µg/m<sup>3</sup>. The annual average TSP value did not exceed the GN guideline of 60 µg/m<sup>3</sup>. No PM<sub>10</sub> samples exceeded the BC Air Quality Objective of 50 µg/m<sup>3</sup> for the 24-h average. No PM<sub>2.5</sub> samples exceeded the GN guideline of 30 µg/m<sup>3</sup> or the Canadian Ambient Air Quality Standard of 28 µg/m<sup>3</sup> for the 24-h average.

The Alberta recreational area guideline for dustfall (0.53 mg/cm<sup>2</sup>/30 days) was exceeded in 2 of 44 samples on the Meadowbank site. While the applicability of these guidelines is not well defined, there are no recreational or residential users within vicinity of the minesite and exceedance of two samples is not expected to result in significant aesthetic or nuisance concerns. The industrial area guideline (1.58 mg/cm<sup>2</sup>/30 d) was not exceeded in any sample.

Dustfall rates along the Meadowbank AWAR continue to lie well within the range of historical values. For samples collected at and beyond the 100 m distance (smallest assumed zone of influence in the FEIS), three of 84 samples collected in 2018 exceeded the Alberta Environment recreational area guideline. Since this guideline is based on aesthetic concerns, it is unlikely that impacts to habitat caused by road dust are occurring beyond FEIS predictions. This conclusion is supported by results of the most recent contaminants monitoring program (Wildlife Screening Level Risk Assessment; Agnico Eagle, 2017) which indicated no incremental risk of the project on wildlife based on road-side soil and vegetation samples.

All samples for dustfall collected along the WTHR were within FEIS predictions with the exception of one 25-m sample at km 37. Given the high variability observed in dustfall samples, particularly in locations close to the road (see Section 4.4), this isolated event is not expected to result in impacts greater than predicted overall. However, data will continue to be reviewed in subsequent years to determine whether a trend towards elevated dustfall rates is occurring. The more general FEIS prediction that the Alberta Environment guideline for recreational areas would not be exceeded beyond 300 m of the road was met in all cases.

The GN annual average standard for NO<sub>2</sub> of 32 ppb was not exceeded at either monitoring location on the Meadowbank site.

Historical comparisons indicate no trends towards increasing concentrations of any measured air quality parameter.

Estimated greenhouse gas emissions for the Meadowbank site as reported to Environment Canada's Greenhouse Gas Emissions Reporting Program in 2018 were 186,122 tonnes CO<sub>2</sub> equivalent, which is similar to the value obtained in 2015, 2016 and 2017 (187,280, 184,223 and 194 440 tonnes CO<sub>2</sub> equivalent).

A summary of incinerator stack testing results is provided. The measured concentrations of mercury were below the GN standard of 20 µg/Rm<sup>3</sup> in all three tests. Measured concentrations of total dioxins and furans were also below the GN standard (80 pg TEQ / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>) in all three tests.

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

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## **SECTION 1 • INTRODUCTION**

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### **1.1 BACKGROUND AND OBJECTIVES**

Since November, 2011, Agnico Eagle Mines Ltd. (Agnico) has conducted outdoor dust and air quality monitoring at the Meadowbank site, near Baker Lake, Nunavut, as required under NIRB Project Certificate No. 004. In 2018, Agnico was issued NIRB Project Certificate No. 008 for development of the Whale Tail site, a satellite deposit at the Meadowbank Mine.

In accordance with conditions of these Project Certificates, air quality and dustfall monitoring in 2018 followed the Air Quality and Dustfall Monitoring Plan - Version 3 (May, 2018). The objective of this program is to monitor ambient air quality around the Meadowbank site and Whale Tail site. Dustfall is also monitored along the Meadowbank All-Weather Access Road (AWAR) and Whale Tail Haul Road (WTHR) as a component of this plan.

Parameters measured at various locations include suspended particulates (TSP, PM<sub>10</sub>, PM<sub>2.5</sub>), NO<sub>2</sub> and dustfall. Onsite dustfall and NO<sub>2</sub> are measured over one-month periods throughout the year, and suspended particulates are measured over 24 hours on a six day cycle throughout the year. Road-side dustfall is measured in transects over two one-month periods during the summer season, when traffic rates peak.

This report provides results of current year air quality monitoring (Section 4), as well as a comparison of historical trends (Section 5), weather data as collected through the onsite weather station (Section 6), greenhouse gas emissions data as required by Environment Canada's Greenhouse Gas Emissions Reporting Program (GHGRP) (Section 7), and a summary of incinerator stack testing as conducted under Meadowbank's Incinerator Waste Management Plan (Agnico, 2018) (Section 8).

### **1.2 MONITORING LOCATIONS**

For all locations, UTM coordinates are provided in Table 1, and locations are shown in relation to minesite features in Figure 1.

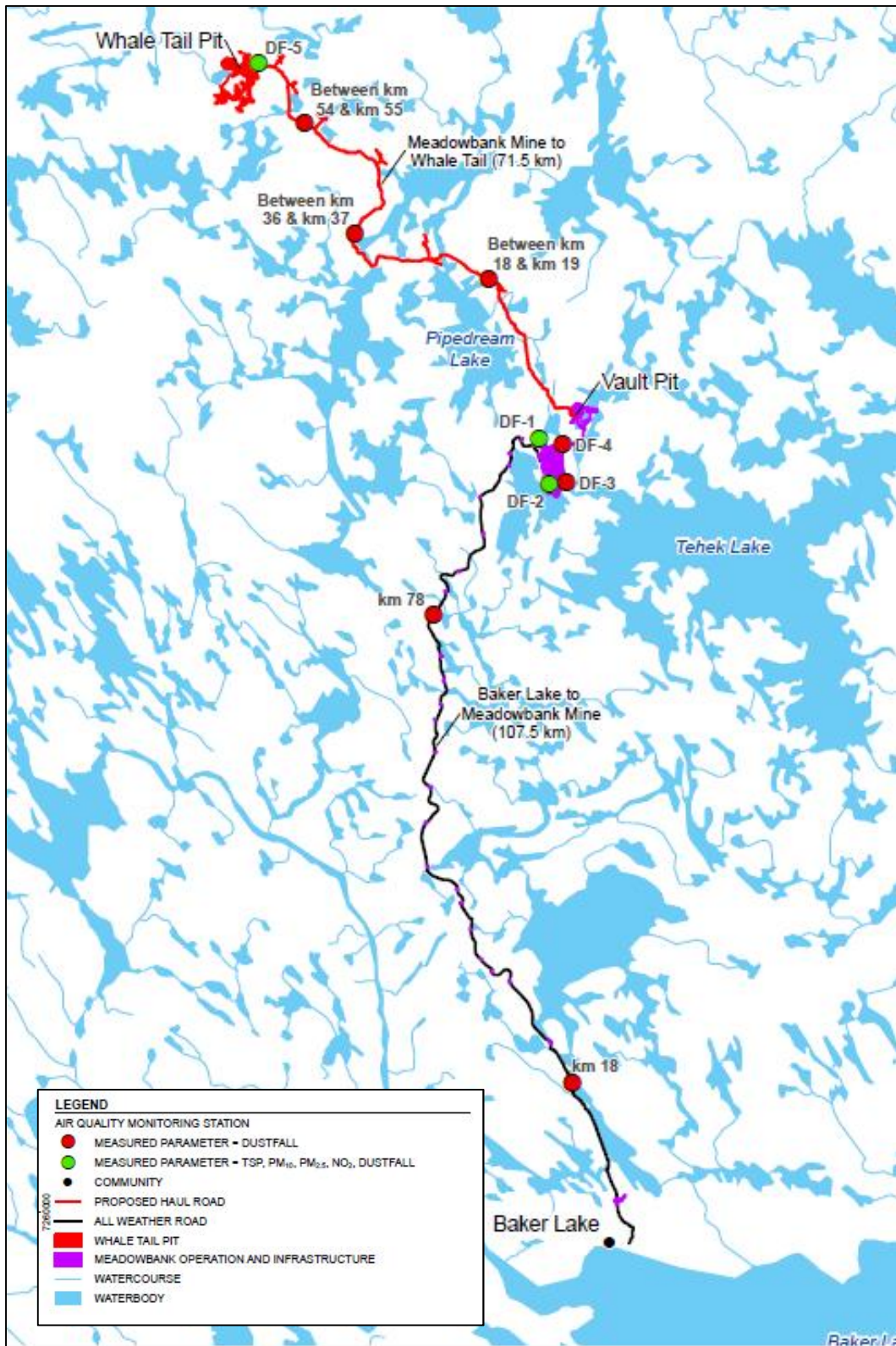


Figure 1. Air quality and dustfall monitoring stations for the Meadowbank and Whale Tail sites.

**Table 1. UTM coordinates and dates of measurement for the Meadowbank air quality and dustfall monitoring locations (all zone 14W). \* Temporary stations – see description in Section 1.2.3.**

<b>Monitoring Location</b>	<b>Measured Parameters</b>	<b>Easting</b>	<b>Northing</b>
DF-1	TSP, PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>2</sub> , dustfall	636850	7217663
DF-2	TSP, PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>2</sub> , dustfall	637895	7213049
DF-3	Dustfall	639599	7213198
DF-4	Dustfall	639233	7217074
DF-5	TSP, PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>2</sub> , dustfall	608301	7255973
AWAR km 18	Dustfall	640208	7152082
AWAR km 78	Dustfall	626155	7199739
AWAR km 11*	Dustfall	643278	7164040
AWAR km 25*	Dustfall	636725	7157526
AWAR km 50*	Dustfall	625424	7175033
AWAR km 69*	Dustfall	627418	7192523
AWAR km 80*	Dustfall	628101	7203786
WTHR km 18	Dustfall	630941	7234375
WTHR km 36	Dustfall	618132	7238621
WTHR km 54	Dustfall	613782	7249508

### 1.2.1 Meadowbank Onsite Locations DF-1 – DF-4

These monitoring locations on the Meadowbank site 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).

Station DF-1 is located next to the explosive storage area (emulsion plant), and approximately 500 m north of the all-weather access road. PM<sub>10</sub> and PM<sub>2.5</sub>, NO<sub>2</sub> and dustfall are monitored at this location year-round.

Station DF-2 is located at the northern corner of South Camp Island, near the TCG contractor area. All parameters (TSP, PM<sub>10</sub> and PM<sub>2.5</sub>, NO<sub>2</sub> and dustfall) are monitored at this location year-round.

Station DF-3 is approximately 1,800 m east of the East Dike. According to the Plan, dustfall only is monitored at this location year-round.

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

### **1.2.2 Whale Tail Onsite Location DF-5**

Station DF-5 (Figure 1) is sited with the communications tower on the eastern boundary of the Whale Tail Pit in an area predicted to receive elevated concentrations of particulate matter (TSP, PM<sub>10</sub> and PM<sub>2.5</sub>) and NO<sub>2</sub> relative to concentrations predicted further from the project footprint. Monitoring at DF-5 will include TSP, PM<sub>10</sub>, PM<sub>2.5</sub>, passive NO<sub>2</sub>, and dustfall year-round. Monitoring at this station will begin in 2019.

### **1.2.3 Meadowbank AWAR Dustfall Transects**

Dustfall transects were established in 2012 at kilometers 18 and 78 along the Baker Lake to Meadowbank Mine AWAR. Dustfall samples are collected twice during the summer season over one-month averaging periods. According to the Plan, monitoring at these transects includes stations at 25 m, 100 m, 300 m and 1000 m from the road on both sides (east/downwind and west/upwind). These distances were chosen to bracket the smallest predicted zone of influence (ZOI) of 100 m. The zone of maximum dustfall has previously been reported to be within 300 m of roads under heavier use than the Meadowbank AWAR (Auerbach et al. 1997). Samples at the 1000 m mark on the upwind side are considered reference locations.

In recent years (from 2017), transects have also been monitored in five locations where dust suppressant is applied (km 11, 25, 50, 69, 80). The purpose of these temporary monitoring stations is to evaluate dust mitigation measures in comparison to the reference sites at km 18 and 78.

### **1.2.4 Whale Tail Haul Road Dustfall Transects**

Dustfall transects are established between kilometers 18 & 19, 36 & 37, and 54 & 55 along the Whale Tail Haul Road (WTHR). Dustfall samples are collected twice during the summer season over one-month averaging periods. Each transect includes stations at 25 m, 100 m, 300 m and 1000 m upwind, (east/north) and downwind (west/south) of the haul road.

## SECTION 2 • DATA ANALYSIS

### 2.1 MEADOWBANK AND WHALE TAIL ONSITE LOCATIONS

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

**Table 2. Government of Nunavut Environmental Guidelines for Ambient Air Quality (October, 2011) for the parameters of concern at Meadowbank. All values are for data normalized to standard conditions of 25°C and 101.3 kPa. \*See text below for description of standards used from other jurisdictions.**

Parameter	Time Frame	GN Guideline		Other Standard*
		µg/m <sup>3</sup>	ppb	
Total Suspended Particulate (TSP)	24-h average	120		
	Annual geometric mean	60		
Coarse Particulate Matter (PM <sub>10</sub> )	24-h average			50 µg/m <sup>3</sup>
	24-h average	30		28 µg/m <sup>3</sup>
Fine Particulate Matter (PM <sub>2.5</sub> )	Annual geometric mean			10 µg/m <sup>3</sup>
	Annual arithmetic mean	60	32	
Dustfall	30 day- average			0.53/1.58 mg/cm <sup>2</sup>

In 2015, the Canadian Council of Ministers of the Environment adopted new Canadian Ambient Air Quality Standards for PM<sub>2.5</sub>. Although these have not yet been incorporated into Nunavut's guidelines, the published 24-h value for PM<sub>2.5</sub> of 28 µg/m<sup>3</sup> and annual average of 10 µg/m<sup>3</sup> are addressed here for reference. These values represent voluntary objectives.

No GN standard is available for coarse particulate matter (PM<sub>10</sub>) so results were compared to the BC Air Quality Objective (August, 2013) of 50 µg/m<sup>3</sup>.

Likewise, no standards for dustfall are available for Nunavut. Results of the dustfall analysis were compared to the Alberta Environment Department recreational area guideline for total dustfall (August, 2013) of 0.53 mg/cm<sup>2</sup>/30d and commercial/industrial guideline of 1.58 mg/cm<sup>2</sup>/30d, to provide context. It should be noted that these guidelines are typically assumed to apply to specific sources of dust, i.e. over and above background dustfall rates.

For the Whale Tail site location, maximum modeled values plus background concentrations of some criteria contaminants are expected to exceed air quality standards. Measured values at DF-5 will therefore also compared to these values to ensure modeling adequately captured the worst-case scenario. Maximum predicted values for the Whale Tail pit site are shown in Table 3. Dustfall rates were predicted for the haul road (see Section 2.3) but not for the Whale Tail site.

**Table 3. Maximum predicted plus background concentrations of measured criteria air contaminants for the Whale Tail site (Golder, 2016).**

Parameter	Time Frame	Maximum Predicted plus Background Concentration
Total Suspended Particulate (TSP)	24-h average	174 µg/m <sup>3</sup>
	Annual geometric mean	16.9 µg/m <sup>3</sup>
Coarse Particulate Matter (PM10)	24-h average	52.4 µg/m <sup>3</sup>
Fine Particulate Matter (PM2.5)	24-h average	20.1 µg/m <sup>3</sup>
	Annual geometric mean	4.3 µg/m <sup>3</sup>
Nitrogen Dioxide (NO <sub>2</sub> )	Annual arithmetic mean	4.4 ppb

## 2.2 MEADOWBANK AWAR DUSTFALL TRANSECTS

The primary goal of AWAR dustfall monitoring is to verify that a reduction in dustfall is occurring for segments of the road where dust suppression is applied.

No regulatory standards for dustfall are available for the territory of Nunavut, and those available elsewhere are based on aesthetic or nuisance concerns. On this basis, Alberta Environment has published a guideline for total dustfall in recreational/residential areas of 0.53 mg/cm<sup>2</sup>/30d, and a guideline for commercial/industrial areas of 1.58 mg/cm<sup>2</sup>/30d. Total dustfall results for AWAR transects are compared to these guidelines to provide context.

Results are also compared to the range of background dustfall rates (samples collected at the Inuggugayualik Lake reference site in 2014, proposed Amaruq road location in 2015, and 1000 m upwind samples in 2016 - 2018).

Trends over time (year-over-year, and July vs. August sampling) are identified. Fixed (non-combustible) dustfall was primarily considered in these comparisons, since it was determined to be more representative of road material than total dustfall, which includes organic components (e.g. pollen, plants, animal particles).

## 2.3 WHALE TAIL HAUL ROAD DUSTFALL TRANSECTS

The primary goal of Whale Tail Haul Road dustfall monitoring is to verify predictions made during the FEIS process. Comparison to FEIS predictions is considered more pertinent than Alberta Environment guidelines for dustfall, since guidelines are based on aesthetic concerns whereas predicted dust deposition rates were used to quantitatively assess impacts across various metrics for environmental health.

Table 4 shows FEIS-predicted maximum monthly dust deposition from haul-road generated dust as a function of distance from the road. Results of the Whale Tail Haul Road monitoring program (total dustfall) are compared to these values plus background concentrations of total dustfall to ensure predictions are not being exceeded. A background dustfall value of 0.27 mg/cm<sup>2</sup>/30d is assumed, based on the maximum dustfall rate measured in this area (km 37) during baseline studies for this area in 2015.

In general, the FEIS predicted that atmospheric deposition of nuisance dust may exceed monthly recreational/residential guidelines within 300 m of the haul road, but are not expected to exceed monthly industrial/commercial guideline at distances greater than approximately 100 m from the haul road.

**Table 4. Predicted maximum monthly dust deposition rate as a function of distance from the Whale Tail Haul Road (Golder, 2016).**

Distance (m)	Predicted Dust Deposition (mg/cm <sup>2</sup> /30d)	Measured Background Dust Deposition (mg/cm <sup>2</sup> /30d)	Predicted + Background Dust Deposition (mg/cm <sup>2</sup> /30d)
25	1.19	0.27	1.46
100	0.56	0.27	0.83
300	0.26	0.27	0.53
1000	0.11	0.27	0.38

## SECTION 3 • MONITORING METHODS

### 3.1 TSP, PM<sub>10</sub>, PM<sub>2.5</sub>

In 2018, Agnico Eagle field staff sampled suspended particulates (TSP, PM<sub>10</sub>, PM<sub>2.5</sub>) at the three 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<sub>2.5</sub> and PM<sub>coarse</sub>). 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, PM<sub>10</sub> and PM<sub>2.5</sub> were performed according to the Partisol operating manual, as follows.

TSP is calculated as:

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

Where: TSP = mass concentration of particulates (µg/m<sup>3</sup>)

M<sub>TSP</sub> = final mass of TSP filter – initial mass of filter (µg/filter)

V = volume of air drawn in during the sampling period (~24 m<sup>3</sup>)

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

PM<sub>2.5</sub> is calculated as:

$$PM_{2.5} = M_{2.5}/V_{2.5}$$

Where: PM<sub>2.5</sub> = mass concentration of particulates (µg/m<sup>3</sup>)

M<sub>2.5</sub> = final mass of PM<sub>2.5</sub> filter – initial mass of filter (µg/filter)

V<sub>2.5</sub> = volume of air drawn through the PM<sub>2.5</sub> filter during the sampling period (~21.7 m<sup>3</sup>)

And  $PM_{\text{coarse}}$  is calculated as:

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

Where:  $PM_{\text{coarse}}$  = mass concentration of particulates ( $\mu\text{g}/\text{m}^3$ )

$M_{\text{coarse}}$  = final mass of  $PM_{\text{coarse}}$  filter – initial mass of filter ( $\mu\text{g}/\text{filter}$ )

$V_{\text{total}}$  = total volume of air drawn into unit during sampling ( $\sim 24\text{m}^3$ )

$V_{\text{coarse}}$  = volume of air drawn through the  $PM_{\text{coarse}}$  filter during the sampling period ( $\sim 2.4\text{m}^3$ )

Concentration of  $PM_{10}$  is then calculated as  $PM_{\text{coarse}} + PM_{2.5}$ .

For comparison to Government of Nunavut Ambient Air Quality Guidelines (2011), concentrations of particulates need to be calculated using air volumes normalized to  $25^\circ\text{C}$  and  $101.3\text{kPa}$  (standard temperature and pressure; STP). Standardized volumes were calculated from average temperature and pressure recorded by the Partisol unit during the sampling period, whenever possible. These values were not available for the dichotomous unit at DF-1, but were recorded for all dates sampled with the TSP unit at that site. At DF-2, standardized volumes were available for all sampling dates for the TSP unit, and all dates except February 19, 25, March 3, April 14, May 5, and September 23 for the dichotomous unit. Actual sampled volumes were used in calculations for those dates. Estimates of suspended particulate concentrations using non-standardized volumes are expected to be slightly conservative (higher than actual), since air temperatures are almost always colder than  $25^\circ\text{C}$ .

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

In accordance with ASTM methods for dustfall measurement (ASTM, 2004), dustfall samples were collected in open vessels containing a purified liquid matrix provided by an accredited laboratory (Maxxam Analytics). Particles are deposited and retained in the liquid, which is then filtered to remove large particles (e.g. leaves, twigs) and analyzed by the accredited laboratory for total and fixed (non-combustible) dustfall. Sampling containers are deployed in the field over approximately one-month periods, and calculated dustfall rates are normalized to 30 days ( $\text{mg}/\text{cm}^2/30$  days per ASTM 1739-98). This sampling method is widely used in air quality studies in Nunavut and elsewhere for dustfall monitoring (e.g. Baffinland, 2014; Sabina, 2012; Pretium, 2013; Taseko, 2011).

ASTM methods suggest collection of the dustfall sample at 2-3 m height on a utility pole to prevent re-entrainment of particulates from the ground, and to reduce vandalism and potential for wildlife interaction. For locations DF-1 – DF-5, samples were collected in this manner. However, due to the difficulty of constructing and deploying stands to hold the large number of sample containers used for road-side dustfall sampling, and the remote locations, the 2012 study compared dustfall at ground level and at 2 m height to inform future sampling method decisions. Based on those results and the assumption that any re-entrainment would result in conservatively high estimates of dustfall, all road-side sampling canisters have been deployed at ground level in since 2013. A supplemental study will be conducted in 2019 to confirm that dustfall rates measured at ground level continue to align with those measured on stands.



Difficulty with maintaining canisters upright in 2013 during strong winds resulted in the use of heavy plastic pipe pieces to surround and support canisters starting in 2014. These supports were maintained at a height lower than the canister opening so that dust deposition was not impeded. These supports have proven very effective, maintaining canisters upright even during high wind events.

### 3.3 NO<sub>2</sub>

Concentrations of NO<sub>2</sub> 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; Golder, 2016).

The annual average NO<sub>2</sub> concentration by volume was calculated from the monthly data for comparison against the relevant standard.

## SECTION 4 • 2018 MONITORING RESULTS

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

### 4.1 TSP, PM<sub>10</sub>, PM<sub>2.5</sub>

Sampling dates and 24-h average concentrations of TSP, PM<sub>10</sub> and PM<sub>2.5</sub> are shown in Figures 2 – 4.

Samples at DF-1 were not available after April 14, due to malfunction of both Partisol units. The DF-1 TSP unit was replaced in November, 2017, and ran until April, 2018. After a lengthy troubleshooting process with the manufacturer and service provider, the issue was identified and parts were ordered in September 2018. The new parts were received in December, 2018, and have now been installed.

The DF-1 dichotomous unit also began malfunctioning in April 2018. After a recurring filter exchange error, the unit was brought at the office for maintenance and troubleshooting. Remote troubleshooting with the manufacturer and service provider could not identify the problem. After looking for spare parts and possible repair options, it was decided that the unit would be sent back for complete overhaul at a specialized dealer in September 2018.

Two new replacement units were also ordered in 2018 to ensure better results in 2019.

For DF-2, PM<sub>2.5</sub> and PM<sub>10</sub> samples were available for most dates from January – October (Table 5). TSP results for this station were available for all except two dates.

**Table 5. Dates for which suspended particulate samples were not collected from Partisol machines in 2018.**

Location	Dates	Reason
DF-1 PM <sub>2.5</sub> /PM <sub>10</sub>	Feb 7, Mar 21	Unit malfunction
	Apr 14 – Dec 28	Unit malfunction, sent for repair
DF-1 TSP	Apr 14 – Dec 28	Unit malfunction, sent for repair
DF-2 PM <sub>2.5</sub> /PM <sub>10</sub>	Feb 1, 7	Unit malfunction, likely due to cold
	Mar 15 - Apr 2	Unit malfunction
	Nov 10 – Dec 28	Unit malfunction, sent for repair
DF-2 TSP	Mar 21 – Apr 4	Unit malfunction

As in previous years, TSP concentrations were low, with three out of 75 samples exceeding the GN 24-h standard of 120 µg/m<sup>3</sup> on March 9, 15 and April 8 at DF-2 (378, 252, 148 µg/m<sup>3</sup>, respectively). These maximums continue to be within the historically recorded high value of 459 µg/m<sup>3</sup>.

The annual geometric mean concentrations of TSP at DF-1 and DF-2 were 4.9 and 9.8 µg/m<sup>3</sup>, respectively. These estimates are well below the annual GN guideline of 60 µg/m<sup>3</sup>, and are similar to values observed in previous years (8 and 12 µg/m<sup>3</sup> in 2012, 4.6 and 14.0 µg/m<sup>3</sup> in 2013, and 6.5 and 12.8 µg/m<sup>3</sup> in 2014, 5.1 and 9.8 µg/m<sup>3</sup> in 2015, 3.8 and 6.4 µg/m<sup>3</sup> in 2016, 2.1 and 10.5 in µg/m<sup>3</sup> 2017).

As in previous years, the highest PM<sub>10</sub> concentrations were generally observed between May and November. No samples exceeded the BC Air Quality Objective of 50 µg/m<sup>3</sup> for 24-h average PM<sub>10</sub>.

No samples exceeded the GN guideline of 30 µg/m<sup>3</sup> for 24-h average PM<sub>2.5</sub>, or the Canadian Ambient Air Quality Standard of 28 µg/m<sup>3</sup>. Annual average concentrations of PM<sub>2.5</sub> were 0.2 (n = 15) and 1.3 µg/m<sup>3</sup> (n = 45) at DF-1 and DF-2, respectively, which are well below the Canadian Ambient Air Quality Standard for annual average PM<sub>2.5</sub> of 10 µg/m<sup>3</sup>.

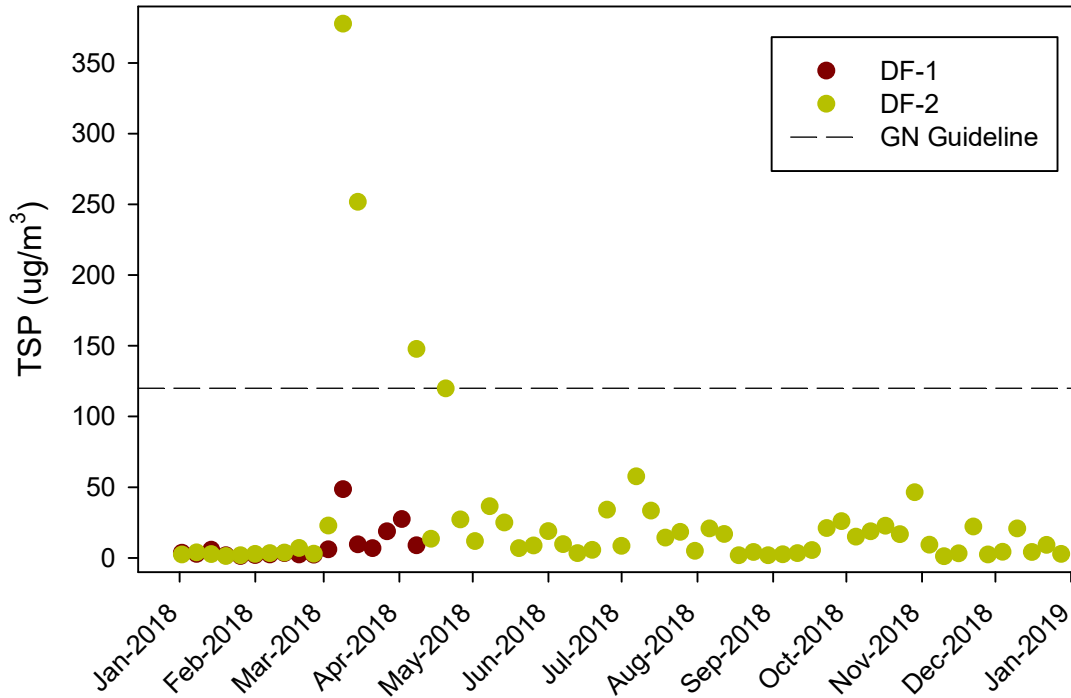


Figure 2. 24-h average concentrations of total suspended particulates (TSP) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN guideline for ambient air quality.

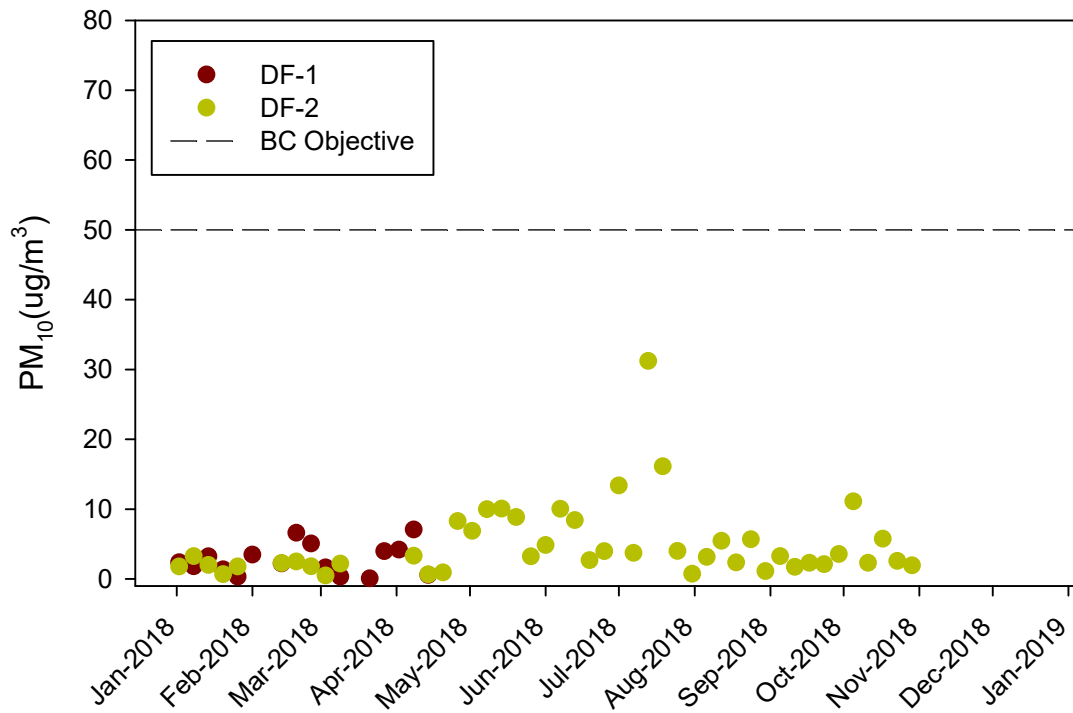


Figure 3. 24-h average concentration of airborne particulate matter less than 10 microns (PM<sub>10</sub>) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the BC Air Quality Objective for this parameter.

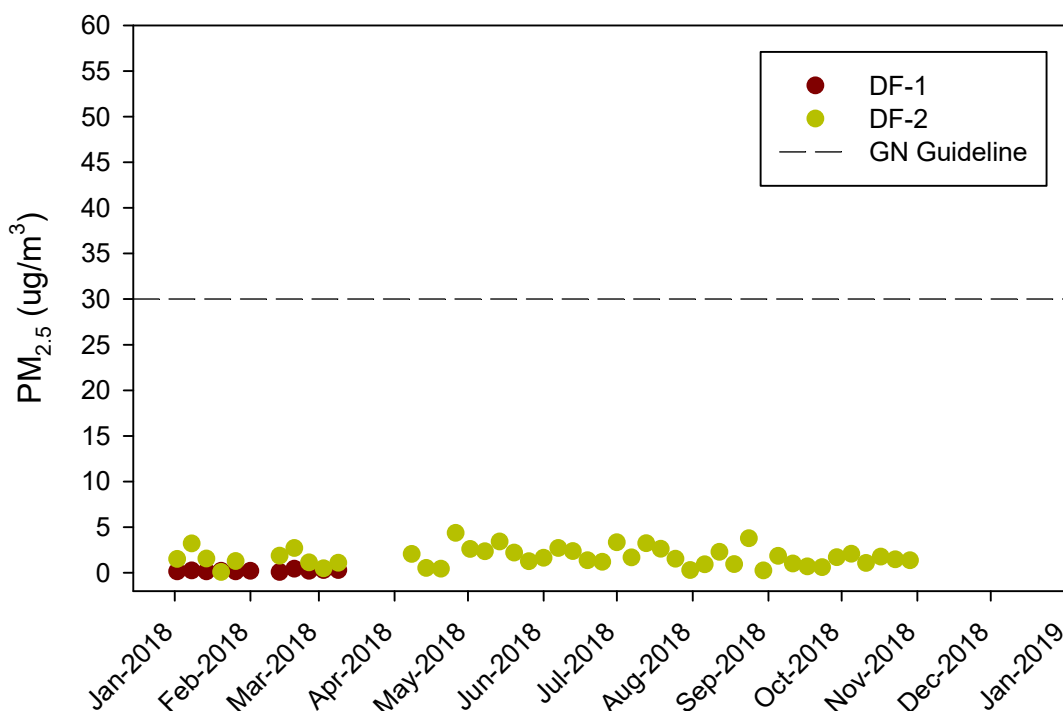


Figure 4. 24-h average concentration of airborne particulate matter less than 2.5 microns (PM<sub>2.5</sub>) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN guideline for ambient air quality.

## 4.2 DUSTFALL

### 4.2.1 Meadowbank Onsite Locations DF-1 – DF-4

Results of the 2018 dustfall sampling program (30-day normalized rates of total and fixed dustfall) are provided in Figure 5 and 6. Samples are plotted by the collection start date. Fixed dustfall accounted for nearly all of total dustfall in most samples (average 80%). To provide context, the Alberta Environment Department’s recreational/residential and industrial/commercial area dustfall guidelines of 0.53 mg/cm<sup>2</sup>/30 days and 1.58 mg/cm<sup>2</sup>/30 days are indicated for total dustfall. These guidelines are based on aesthetic or nuisance concerns, and are to be used for airshed planning and management, as a general performance indicator, and to assess local concerns.

The recreational/residential area guideline was exceeded in 2 out of 44 samples, which is similar to previous years (3 exceedances in 2017, 1 in 2015 & 2016, 5 in 2014, 11 in 2013, 10 in 2012; see Figure 18). The industrial/commercial area guideline, which is most applicable to these minesite locations, was not exceeded. While the use of these guidelines is not well defined, there are no recreational or residential users within vicinity of the minesite and exceedance of three samples is not expected to result in significant aesthetic or nuisance concerns.

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

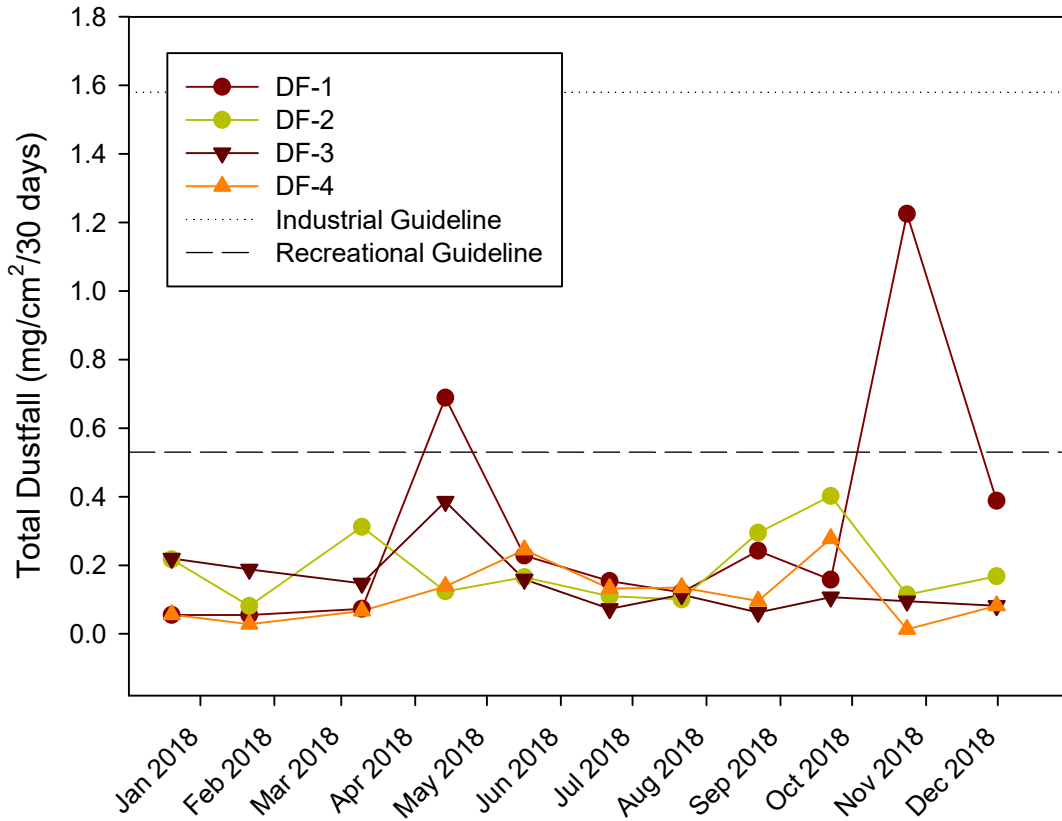


Figure 5. Total 30-day-normalized dustfall at DF-1 – 4 at the Meadowbank site. Points represent start date of sample collection. Dashed line indicates the Alberta Environment Department's recreational area guideline of 0.53 mg/cm<sup>2</sup>/30d, and the dotted line indicates the industrial area guideline of 1.58 mg/cm<sup>2</sup>/30d.

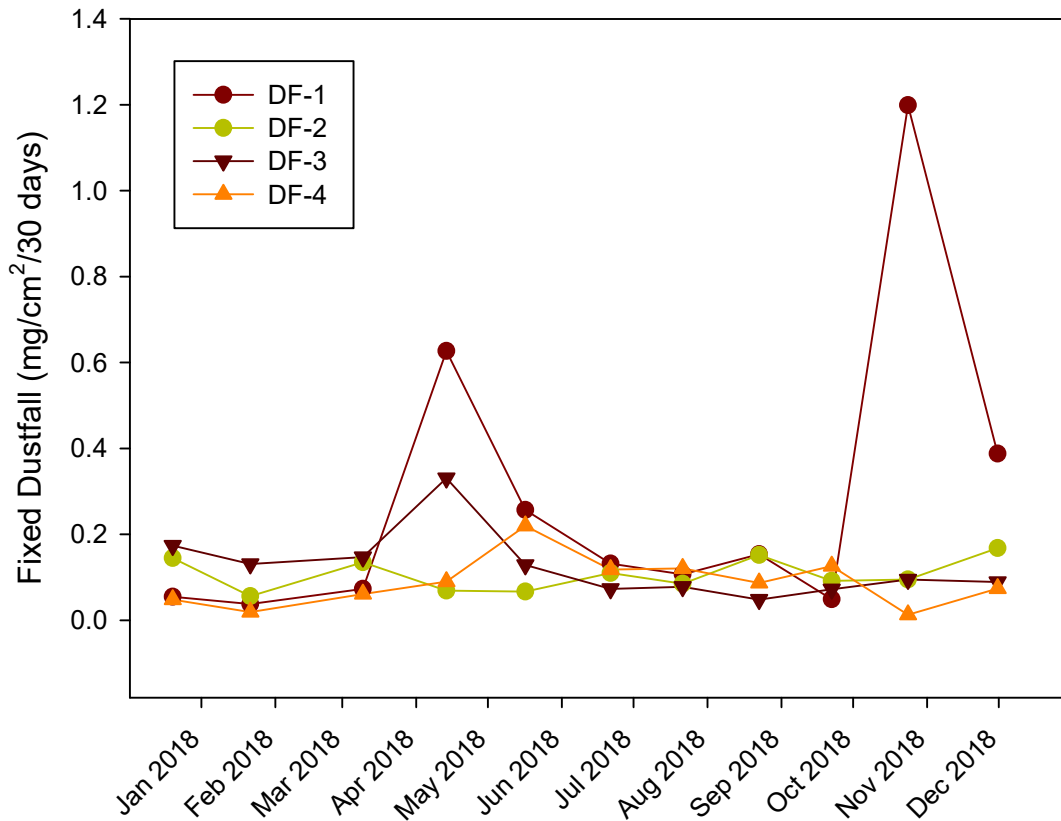


Figure 6. Fixed (non-combustible) 30-day-normalized dustfall at DF-1 – 4 at the Meadowbank site. Points represent start date of sample collection.

#### 4.2.2 Whale Tail Onsite Location DF-5

Dustfall sampling at DF-5 will begin in 2019.

#### 4.2.3 Meadowbank AWAR Dustfall Transects

Results for all samples collected in 2018 are provided in Appendix C.

##### 4.2.3.1 Effectiveness of Dust Suppression

On July 9, dust suppressant (Tetraflake) was applied to five sections of the AWAR, as well as two locations in the hamlet of Baker Lake, and one area onsite. Locations are described in Table 6, and were the same as 2017.

**Table 6. Dust suppressant locations in 2018.**

<b>Location Type</b>	<b>Dust Suppression Location</b>	<b>Rationale</b>
Hamlet	Agnico Eagle spud barge area	High traffic area near hamlet
Hamlet	Agnico Eagle tank farm to Arctic Fuel site	High traffic area near hamlet
AWAR	km 10 - 12	High traffic area near hamlet & area of concern to HTO – proximity to lake
AWAR	km 24 - 26	Area of concern to HTO – proximity to lake
AWAR	km 48 - 50	Area of concern to HTO – water crossing
AWAR	km 68 - 70	Location identified by Agnico Eagle – water crossing
AWAR	km 80 - 84	Location identified by Agnico Eagle – proximity to water & crossing
Onsite	Emulsion plant turn off to Meadowbank site (km 103 – 110)	High traffic area onsite

For each transect, results of the dustfall sampling are compared to the maximum observed reference site value (Figure 7 and 8), to confirm reductions in dustfall occurred as a result of dust suppressant application. Fixed dustfall rates are compared, since these are determined to be more representative of road material than total dustfall, which includes organic components (e.g. pollen, plants, animal particles). With the exception of one apparent outlier sample at the 25 m distance during Round 2 (km 25), results indicate that dust suppressant is effectively reducing rates of dustfall compared to reference locations.

One sample at the 1000 m distance was elevated compared to other locations and historically observed background rates during Round 1. However, given the decline observed from 25m to 100 m to 300 m at this location, it is unlikely this result is related to increased rates of road dust, and more likely was due to animal interference or a localized event. The unusually high proportion of combustible material in this sample (>50%) supports this conclusion. However, dustfall rates in this location will be assessed in subsequent sampling years to confirm there is no trend towards increased dust generation.



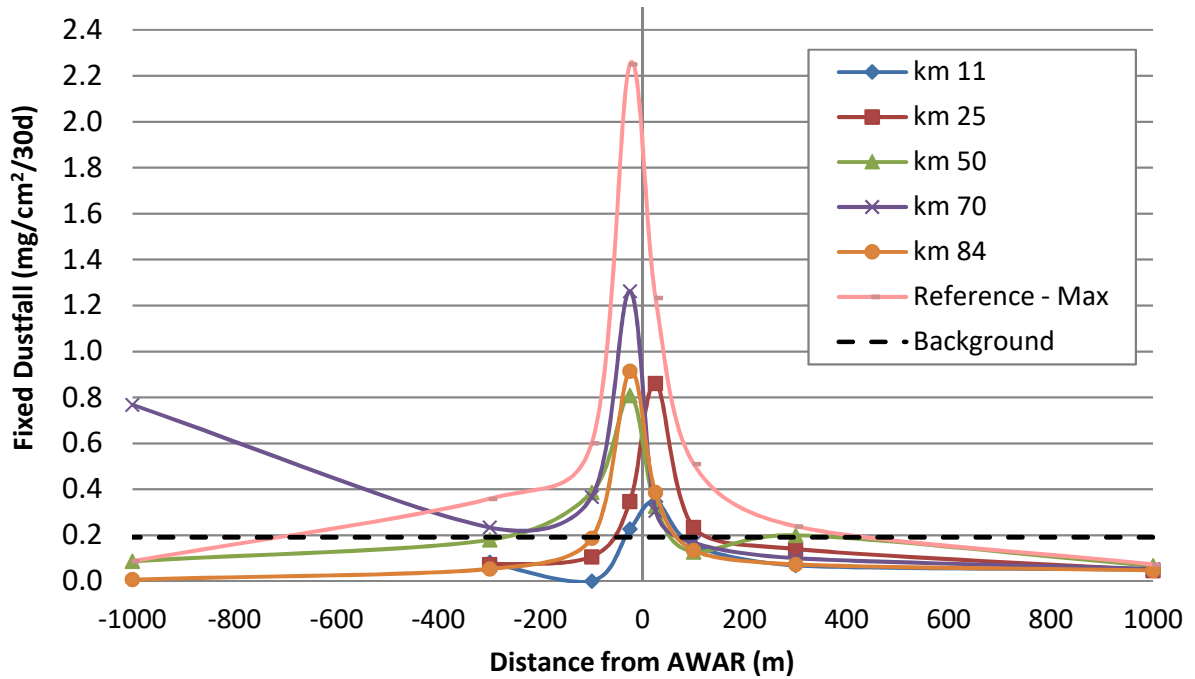


Figure 7. Monitoring Round 1 (July 1 – August 5) - Measured rates of fixed dustfall at 25, 100, 300, and 1000 m on both upwind (positive) and downwind (negative) sides of the Meadowbank AWAR in reference locations (max. measured values) and areas of dust suppression. Dashed line represents the highest recorded background dustfall rate (1000 m upwind, km 18, 2016). No regulatory guidelines are available for fixed dustfall.

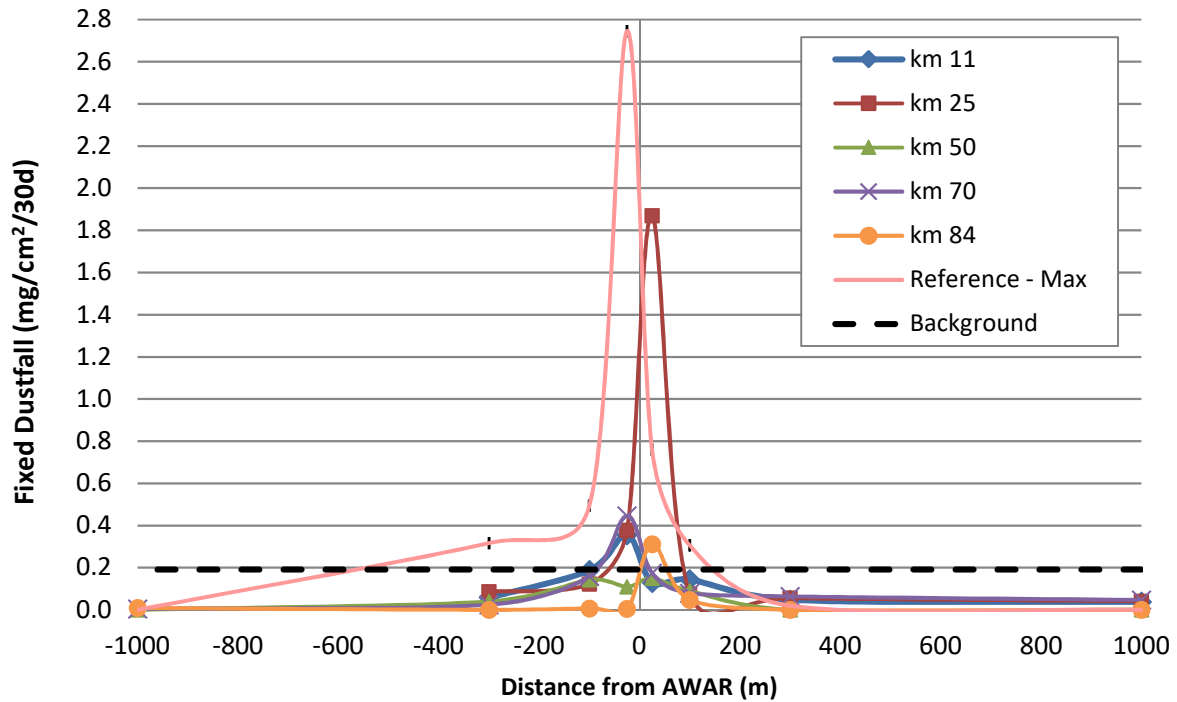


Figure 8. Monitoring Round 2 (August 5 – September 15) - Measured rates of fixed dustfall collected at 25, 100, 300, and 1000 m on both upwind (positive) and downwind (negative) sides of the Meadowbank AWAR in references locations (max. measured value) and areas of dust suppression. Dashed line represents the highest recorded background dustfall rate (1000 m upwind, km 18, 2016). No regulatory guidelines are available for fixed dustfall.

#### 4.2.3.2 Comparison to Guideline Values

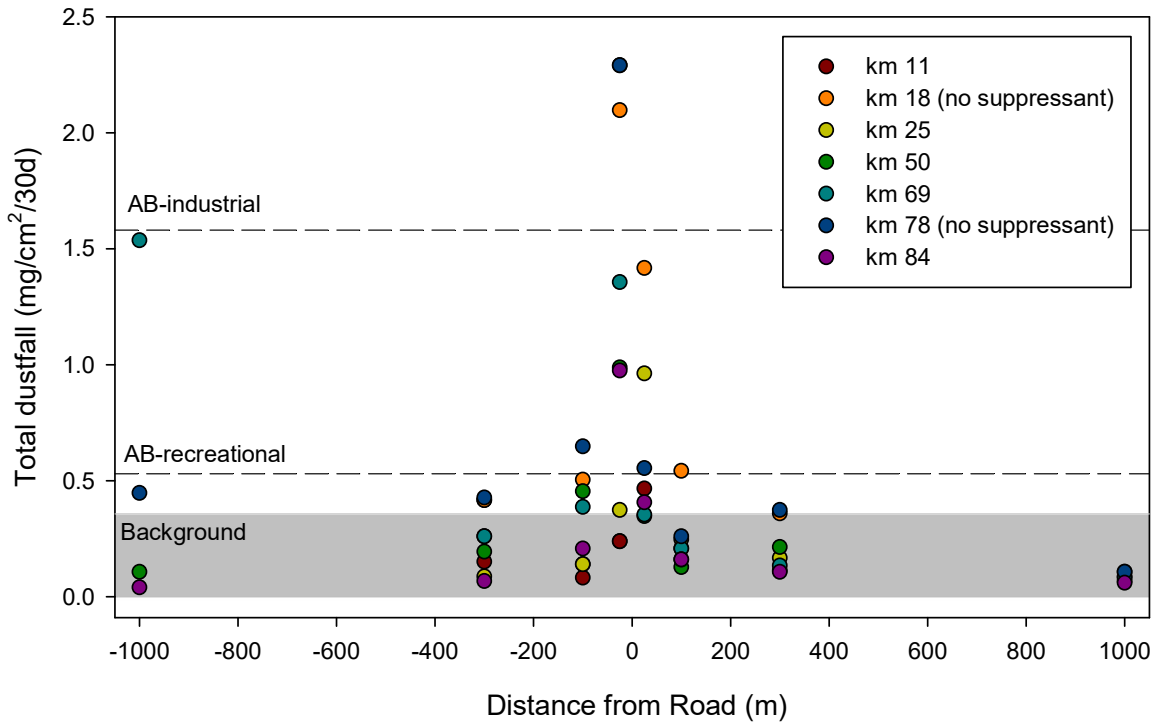
Total dustfall values for all AWAR stations sampled in 2018 are presented in Figures 9 and 10 in relation to Alberta Environment guidelines for total dustfall and the range of background values observed to date. The range of background dustfall rates (grey bar) was determined from a total of 31 samples (2 samples collected at an established external reference site near Inuggugayualik Lake in 2014, 22 samples collected along the proposed Amaruq AWAR route in 2015, 5 samples collected at 1000 m upwind of the road at km 18 and 78 in 2016, one sample collected at 1000 m upwind of the road at km 78 in 2017 and 2018).

In the Final Environmental Impact Statement for the Project (Cumberland, 2005), all habitat within 100 m from the AWAR was assumed lost due to impacts of the roadway. Thus in order to understand whether FEIS predictions are being exceeded, results of dustfall sampling at and beyond 100 m are compared to the Alberta Environment guideline for recreational areas. However, it should be noted that this guideline is based on nuisance and aesthetic concerns, and not necessarily impacts to vegetation. It is also generally considered to apply to a specific dust source, over and above background values. Therefore, this is considered a conservative, screening-level comparison, and any significant exceedances will be further investigated.

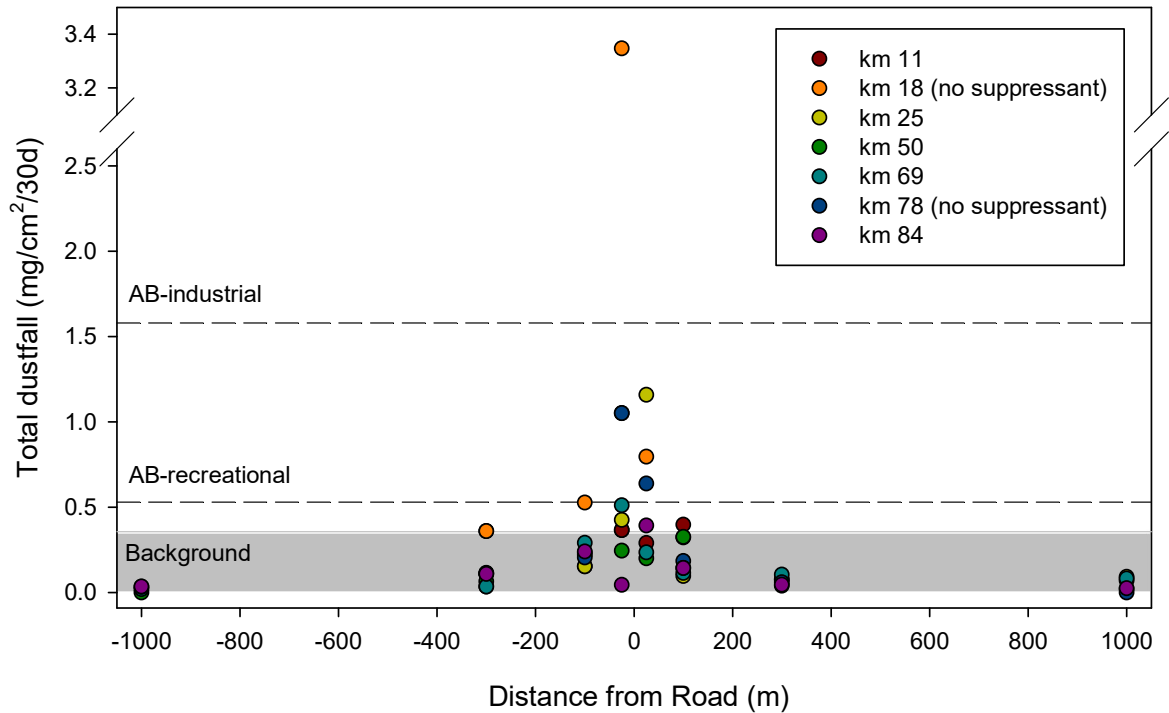
For samples collected at and beyond 100 m from the AWAR in areas with dust suppression, no samples exceeded the guideline except the sample collected at 1000 m from the road at km 69. It is considered

unlikely that this result is due to generation of road dust, as discussed in Section 4.2.3.1 above, but results of the 2019 monitoring event will be reviewed to ensure no trend is beginning.

For locations without dust suppression (km 18 and 78), two samples marginally exceeded the guideline in Round 1 (0.54, 0.65 mg/cm<sup>2</sup>/30d), and none exceeded the guideline in Round 2. These results suggest that even without dust suppression, it is unlikely that impacts on habitat due to dust are exceeding those predicted in the FEIS. This conclusion is supported by results of the most recent contaminants monitoring program (Wildlife Screening Level Risk Assessment; Agnico Eagle, 2017) which indicated no incremental risk of the project on wildlife based on road-side soil and vegetation samples.



**Figure 9. Monitoring Round 1 (July 1 – August 5) - Measured rates of total dustfall at 25, 100, 300, and 1000 m on both upwind (positive) and downwind (negative) sides of the Meadowbank AWAR in areas with and without dust suppression. Dashed lines represent the Alberta Environment guideline for industrial and recreational areas. Grey bar represents the range of background values observed to date.**



**Figure 10. Monitoring Round 2 (August 5 – September 15) - Measured rates of total dustfall at 25, 100, 300, and 1000 m on both upwind (positive) and downwind (negative) sides of the Meadowbank AWAR in areas with and without dust suppression. Dashed lines represent the Alberta Environment guideline for industrial and recreational areas. Grey bar represents the range of background values observed to date.**

#### 4.2.4 Whale Tail Haul Road Dustfall Transects

Results for all samples collected in 2018 for monitoring rounds 1 and 2 are provided in Appendix C and are compared to FEIS predicted values in Figures 11 and 12. All samples were within FEIS predictions with the exception of one 25-m sample at km 37. Given the high variability observed in dustfall samples, particularly in locations close to the road (see Section 4.4), this isolated event is not expected to result in impacts greater than predicted overall. However, trends in this location will continue to be monitored.

The more general FEIS prediction that the Alberta Environment guideline for recreational areas (0.53 mg/cm²/30d) would not be exceeded beyond 300 m of the road was met in all cases.

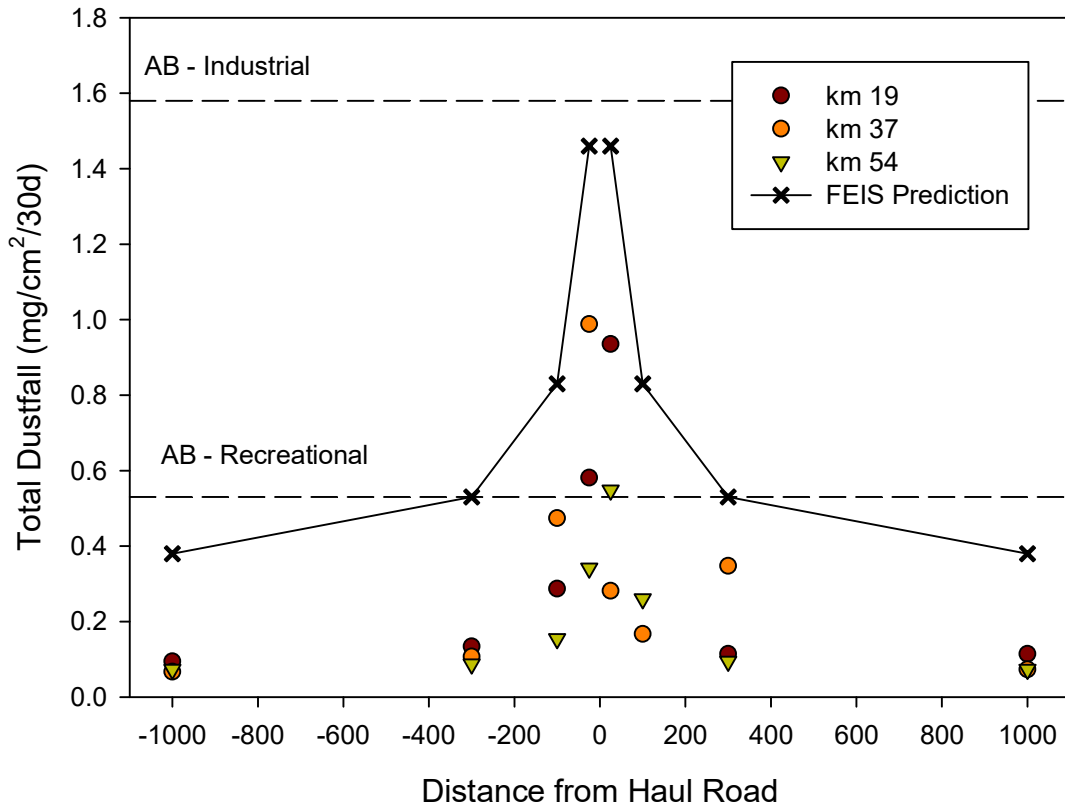


Figure 11. Monitoring Round 1 - Measured values of total dustfall for transects at km 19, 37 and 54 along the Whale Tail Haul Road, maximum predicted dustfall rates + background concentrations for 25, 100, 300, and 1000 m from the road, and Alberta Environment's guidelines for recreational and industrial areas. Negative values denote locates on the east side of the road, while positive values denote locations on the west side of the road.

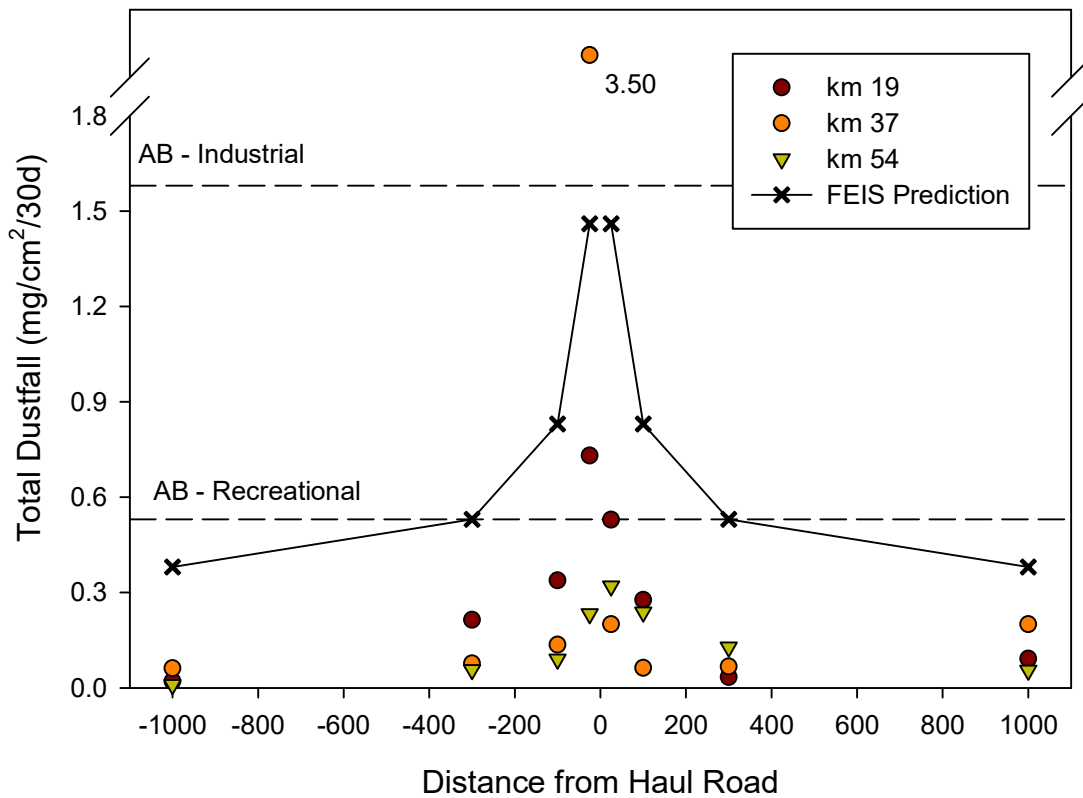
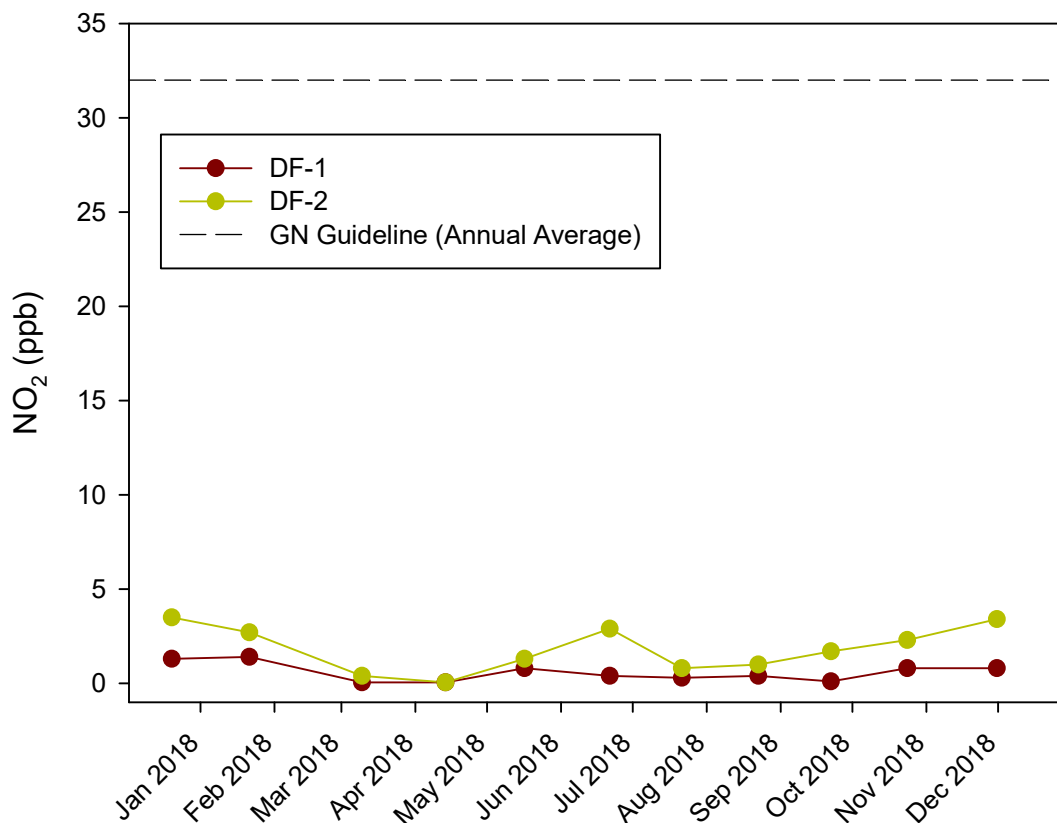


Figure 12. Monitoring Round 2 - Measured values of total dustfall for transects at km 19, 37 and 54 along the Whale Tail Haul Road, maximum predicted dustfall rates + background concentrations for 25, 100, 300, and 1000 m from the road, and Alberta Environment's guidelines for recreational and industrial areas. Negative values denote locates on the east side of the road, while positive values denote locations on the west side of the road.

### 4.3 NO<sub>2</sub>

Monthly-average NO<sub>2</sub> trends in 2018 are provided in Figure 13. Samples are referred to by the collection start date. Concentrations of NO<sub>2</sub> vary between non-detect (<0.1) and 3.5 ppb. This maximum is similar to those observed previously (3.2, 2.4, 3.3, 3.3, 5.3, and 6.8 ppb observed in 2017, 2016, 2015, 2014, 2013 and 2012, respectively). At most time points, concentrations continue to be slightly lower at DF-1 than DF-2. This is likely because DF-1 is further from the main camp area and there is generally less vehicular activity in the vicinity. No clear trends towards increasing or decreasing concentrations over time are evident.

Annual arithmetic mean concentrations were calculated for each station from the monthly-average values. The annual mean concentrations of NO<sub>2</sub> were 0.57 and 1.81 ppb for DF-1 and DF-2, respectively (December 20, 2017 – December 29, 2018). These are both well below the Government of Nunavut Ambient Air Quality Standard of 32 ppb for the annual average.



**Figure 13. Monthly average concentration of NO<sub>2</sub> 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 2018 included the use of an accredited lab for sample preparation and analysis, sample collection by appropriate personnel (trained by a professional air quality specialist), use of travel blanks for suspended particulate and NO<sub>2</sub> samples, and use of field duplicates for road-side dustfall samples.

Travel blanks were used as part of 6 of 7 suspended particulate sample submissions. Contamination of travel blanks between 3 and 11 µg/filter (MDL = 3 µg/filter) occurred. Detections in travel blanks are relatively common, with 8, 2, 3, and 6 contaminated blanks occurring in 2017, 2016, 2015 and 2014, respectively, up to 14 ug/filter. In the majority of cases, blanks marginally exceeded the detection limit (e.g. 4 or 5 ug/filter) and never exceeded 5x the MDL. Since there were few exceedances of regulatory guidelines, interpretation of field results was not modified based on this analysis.

Travel blanks were also analyzed for each NO<sub>2</sub> sampling event. Unopened canisters were shipped to Meadowbank site by the laboratory, stored in the field office, and shipped back to the laboratory with each monthly NO<sub>2</sub> analysis. Detections occurred in all samples, from 0.1 to 0.9 ppb. Since NO<sub>2</sub> concentrations are well below regulatory guidelines, interpretation of field results was not modified based on this analysis.

Field duplicate canisters are collected in the immediate vicinity of regular samples. The relative percent difference (RPD) values calculated for fixed dustfall for duplicate canisters are shown in Table 7. Relative to other media, RPDs in dustfall samples have tended to be very high, which is understandable given the potential for debris to be entrained by passing vehicles and land in adjacent dustfall canisters. This variability should be taken into consideration when interpreting the results of the dustfall studies.

**Table 7. RPD values for duplicate dustfall canisters.**

Location	Round 1			Round 2		
	Sample (mg/cm <sup>2</sup> /30d)	Duplicate (mg/cm <sup>2</sup> /30d)	RPD (%)	Sample (mg/cm <sup>2</sup> /30d)	Duplicate (mg/cm <sup>2</sup> /30d)	RPD (%)
DF-11E-25	0.227	0.302	-28.4	0.355	0.29	20.2
DF-18W-300	0.359	0.208	53.3	0.317	0.175	57.7
DF-25E-100	0.107	0.134	-22.4	0.123	0.082	40.0
DF-70E-300	0.234	0.147	45.7	0.025	0.047	-61.1
DF-78E-25	2.251	3.386	-40.3	0.894	1.238	-32.3
DF-84W-100	0.134	0.160	-17.7	0.048	0.067	-33.0



## SECTION 5 • HISTORICAL COMPARISON

### 5.1 TSP, PM<sub>10</sub>, PM<sub>2.5</sub>

In order to understand trends of suspended particulate concentrations at the Meadowbank site over time, measured values of TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> at DF-1 and DF-2 were plotted since monitoring began in 2012 (Figures 14, 15, 16). These results indicate that concentrations of suspended particulates are relatively stable and have not been increasing over time.

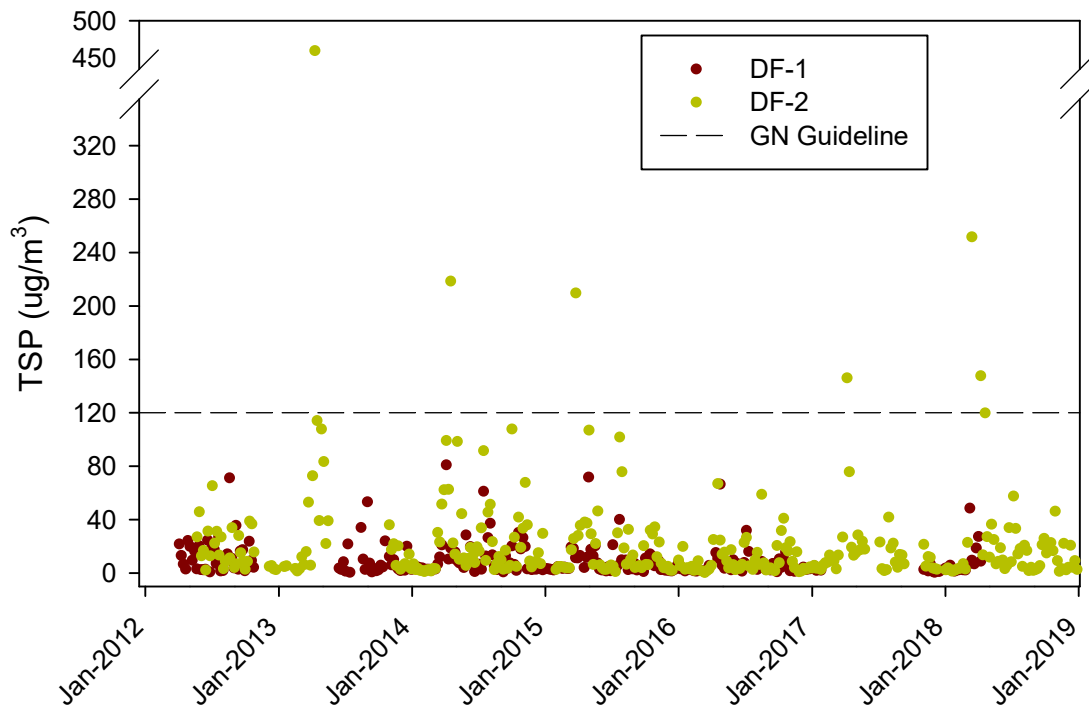


Figure 14. 24-h average concentrations of total suspended particulates (TSP) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN guideline for ambient air quality.

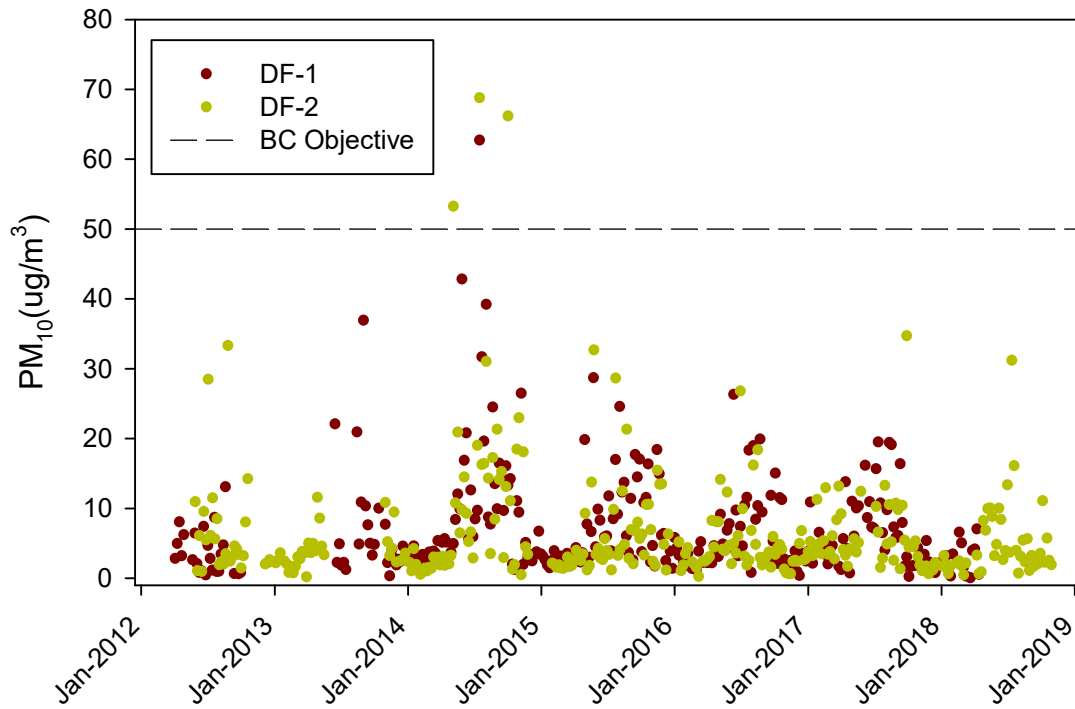
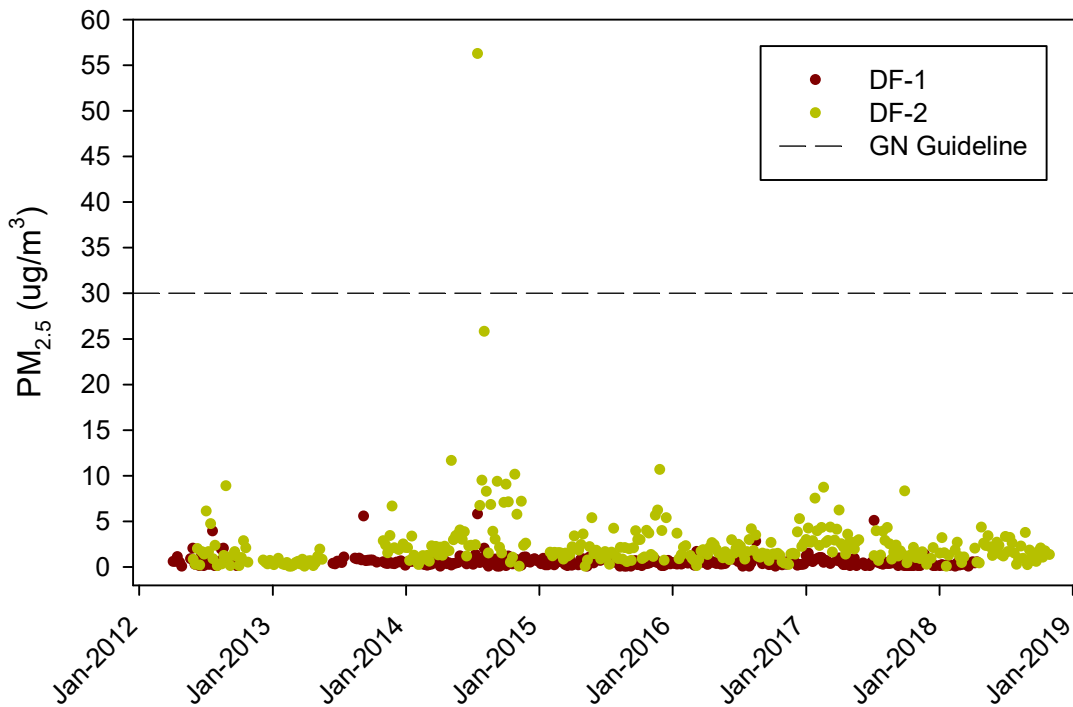


Figure 15. 24-h average concentration of airborne particulate matter less than 10 microns ( $PM_{10}$ ) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the BC Air Quality Objective for this parameter.

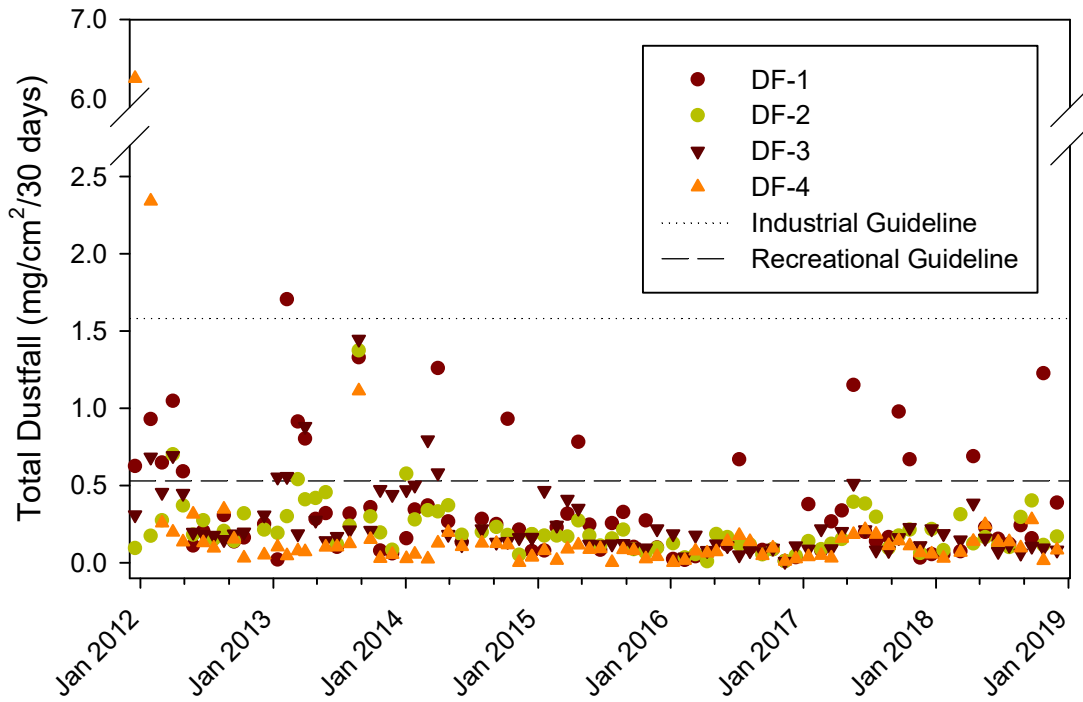


**Figure 16. 24-h average concentration of airborne particulate matter less than 2.5 microns (PM<sub>2.5</sub>) at Meadowbank stations DF-1 and DF-2. Dashed line indicates the 24-hr average GN guideline for ambient air quality.**

## 5.2 DUSTFALL

### 5.2.1 Meadowbank Onsite Locations DF-1 – DF-4

In order to understand trends in generation of deposited particulate matter at the Meadowbank site over time, measured values of dustfall at DF-1, DF-2, DF-3, and DF-4 were plotted since monitoring began in 2012 (Figures 17 and 18). These results indicate that rates of dustfall have not been increasing over time.



**Figure 17. 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/cm<sup>2</sup>/30d, and the dotted line indicates the industrial area guideline of 1.58 mg/cm<sup>2</sup>/30d.**

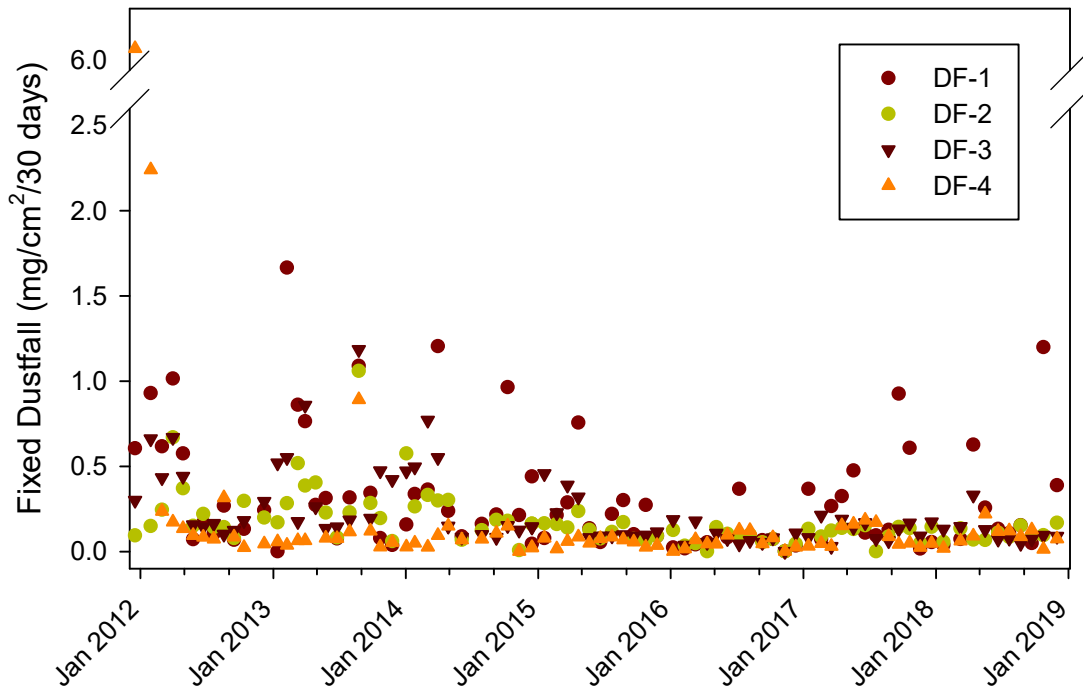
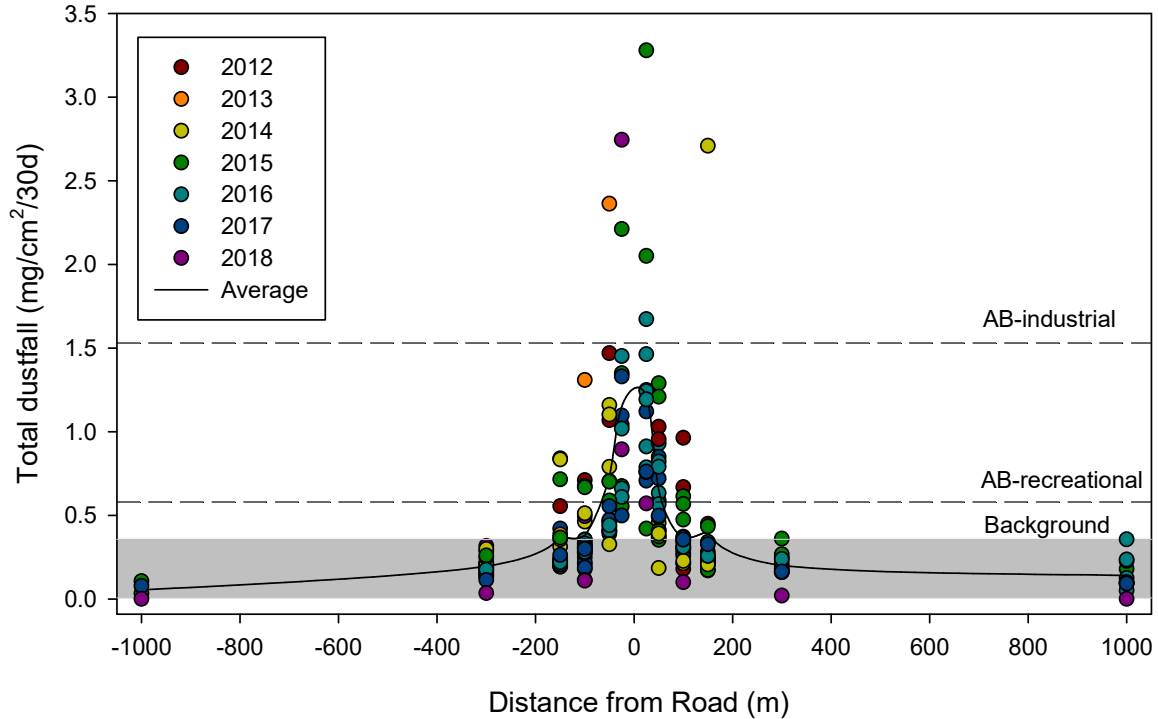


Figure 18. Fixed (non-combustible) 30-day-normalized dustfall at DF-1 – 4 at the Meadowbank site. Points represent start date of sample collection.

### 5.2.2 Meadowbank AWAR Dustfall Transects

All results collected along the Meadowbank AWAR to date (since 2012) in locations without dust suppression are presented in Figure 19 in relation to Alberta Environment guidelines for total dustfall and the range of background values observed to date. Results are compared here only for samples collected mainly in August, since historically sampling was only performed during this month, when the highest traffic rates and driest weather occurs.

The range of background concentrations (grey bar) was determined from a total of 31 samples (2 samples collected at an established external reference site near Inuggugayualik Lake in 2014, 22 samples collected along the proposed Amaruq AWAR route in 2015, 5 samples collected at 1000 m upwind of the road at km 18 and 78 in 2016, one sample collected at 1000 m upwind of the road at km 78 in 2017 and 2018).



**Figure 19. Total dustfall rates ( $\text{mg}/\text{cm}^2/30\text{d}$ ) for all samples collected since 2012 (August sampling events) along the Meadowbank AWAR in areas without dust suppression. Negative distances represent the downwind (east) side of the road, and positive distances represent the upwind (west) side. Solid line represents the average total dustfall rate. The grey bar represents the range of background samples.**

Dustfall rates measured in 2018 continue to lie well within the range of historical values. To date (2012 – 2018), 7 samples have exceeded the Alberta Environment total dustfall guideline for industrial areas of  $1.58 \text{ mg}/\text{cm}^2/30\text{d}$ , with 6 out of 7 occurrences at the 25 or 50 m distance (i.e. within the zone where all habitat was assumed lost in the FEIS).

In 2018, all samples at or beyond 100 m (smallest assumed ZOI) were below the Alberta Environment total dustfall guideline for recreational areas of  $0.53 \text{ mg}/\text{cm}^2/30\text{d}$  during the August sampling event. Average total dustfall to date at 100 m for samples collected during this time period continues to lie below the guideline for recreational areas, at  $0.37 \text{ mg}/\text{cm}^2/30\text{d}$  ( $n = 47$ ).

All samples collected at the 300 or 1000 m distance are within the range of background values measured to date ( $0.007 - 0.357 \text{ mg}/\text{cm}^2/30\text{d}$ ).

### 5.2.3 Whale Tail Haul Road Dustfall Transects

As 2018 was the first year of sampling for the Whale Tail Haul Road dustfall transects, no historical comparison was conducted.

### 5.3 NO<sub>2</sub>

In order to understand trends in concentrations of gaseous pollutants at the Meadowbank site over time, measured values of NO<sub>2</sub> at DF-1 and DF-2 were plotted since monitoring began in 2012 (Figure 20). These results indicate that concentrations of NO<sub>2</sub> in the area have remained very low, and are not increasing over time.

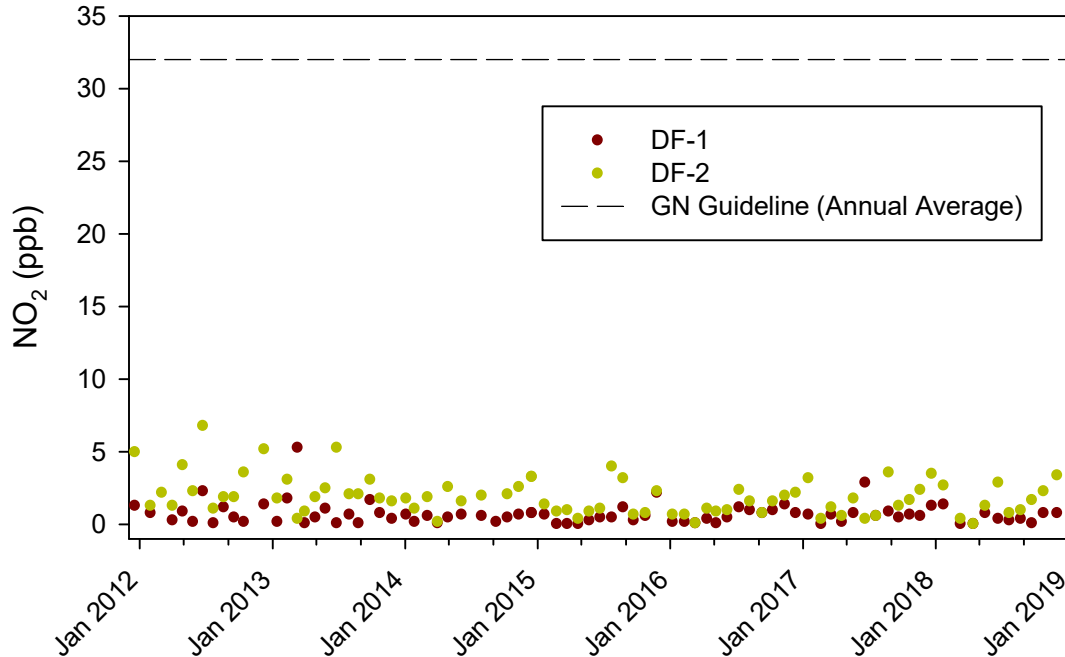


Figure 20. Monthly average concentration of NO<sub>2</sub> at DF-1 and DF-2. Points represent start date of sample collection. Dashed line indicates GN standard for the annual average.

## SECTION 6 • WEATHER DATA

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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 7 • GREENHOUSE GAS EMISSIONS**

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

Estimated greenhouse gas emissions for the Meadowbank site as reported to Environment Canada's Greenhouse Gas Emissions Reporting Program in 2018 were 186,122 tonnes CO<sub>2</sub> equivalent. This is similar to the value observed in past years with 194,440 tonnes in 2017, 184,223 tonnes in 2016, 187,280 tonnes in 2015, 179,889 tonnes in 2014, 195,686 tonnes in 2013, and 202,201 tonnes CO<sub>2</sub> equivalent in 2012.



## SECTION 8 • INCINERATOR STACK TESTING

Incinerator stack testing is conducted under Agnico Eagle’s Incinerator Waste Management Plan (AEM, 2018), and results are summarized here. As determined in consultation with Environment and Climate Change Canada, incinerator stack testing is undertaken every two years, and annually for five years following an exceedance of ECCC/GN criteria. In 2014, stack testing was conducted from July 11<sup>th</sup> to July 13<sup>th</sup> by Exova Canada Inc. Results indicated that the average (of 3 tests) measured mercury level (64.09 µg / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>) exceeded the GN standard (20 µg / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>). Laboratory re-analysis confirmed these results. An investigation with Meadowbank’s Site Services Department was performed to determine the potential sources. Although Meadowbank has an alkaline battery recycling program, the investigation revealed that there could still be a significant volume of batteries disposed of with regular solid waste destined for the onsite incinerator. This would seem to be the most likely source. In addition, the incinerator may have been overloaded on the day of testing which would result in some incomplete combustion but this would not be considered as a major contributing factor. The dioxin and furans results in 2014 (53.6 pg TEQ / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>) were well below the GN standard (80 pg TEQ / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>).

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

Results of annual stack testing are provided in Table 8. Since 2015, concentrations of mercury have been below the GN standard of 20 µg/ Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>, suggesting that efforts to reduce improper disposal of batteries were effective. Concentrations of dioxins and furans have also continued to meet the GN standard (80 pg TEQ / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>).

**Table 8. Historical stack testing results for mercury and dioxins and furans at the Meadowbank site. \*The GN standard is for the average of three tests, as reported here.**

Year	Mercury (µg/Rm <sup>3</sup> @ 11% v/v O <sub>2</sub> )		Dioxins and Furans (pg/Rm <sup>3</sup> @ 11% v/v O <sub>2</sub> )	
	GN Standard	Stack Testing Results (Average*)	GN Standard	Stack Testing Results (Average*)
2014	20	64.09	80	53.6
2015		<0.22		21.0
2016		<0.46		33
2017		3.8		22
2018		<0.19		10

## **SECTION 9 • CURRENT YEAR MONITORING SUMMARY**

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### **9.1 SUSPENDED PARTICULATES (TSP, PM<sub>10</sub>, PM<sub>2.5</sub>)**

For TSP, 3 of 75 samples exceeded the GN 24-h guideline of 120 µg/m<sup>3</sup>, but the annual guideline was not exceeded.

All results of PM<sub>2.5</sub> and PM<sub>10</sub> analyses were below the relevant air quality criteria for 24-h and annual averaging times.

### **9.2 DUSTFALL**

No dustfall samples collected on the Meadowbank site exceeded the most relevant Alberta Environment guideline (industrial areas).

Along the Meadowbank AWAR, 3 of 84 samples collected at or beyond the 100 m distance (smallest assumed ZOI) exceeded the Alberta Environment recreational area guideline.

As predicted in the FEIS (Golder, 2016), no samples at or beyond 300 m from the WTHR exceeded the Alberta Environment recreational area guideline.

### **9.3 NO<sub>2</sub>**

Annual average NO<sub>2</sub> did not exceed the GN guideline of 32 ppb at either station on the Meadowbank site.

### **9.4 INCINERATOR EMISSIONS**

Results from stack testing in 2018 indicated that all measured mercury concentrations were below the GN standard (20 µg / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>), and all measured total dioxin and furans concentrations were below the GN standard (80 pg TEQ / Rm<sup>3</sup> @ 11 % v/v O<sub>2</sub>).

### **9.5 CONCLUSION**

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

## **SECTION 10 • ACTIONS**

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The following actions were identified for 2018, and Agnico's response to each is indicated:

- After being made aware of parts availability and services for units at the Meadowbank site, Agnico has started a replacement program to ensure consistency with the air sampling program. One unit was replaced in 2017, and 1 unit will be replaced, even if still in working order, yearly until all units have been replaced in 2020. This should ensure unnecessary gaps in sampling related to equipment issues are reduced to a minimum by having old units available for parts if needed and ensure sampling units meet rigorous standards.
  - The dichotomous unit at DF-1 was sent for a complete re-build in September, 2018. In addition, two new Partisol units were ordered and will be installed in 2019.

Actions identified for 2019 are:

- Sampling for dustfall, NO<sub>2</sub>, and suspended particulates will commence at Whale Tail site DF-5.
- Replacement of two Partisol units, as described above.
- A supplemental study will be conducted in 2019 to confirm that dustfall rates measured at ground level continue to align with those measured on stands.

## **SECTION 11 • REFERENCES**

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Agnico Eagle Mines Ltd. (AEM), 2018. Meadowbank Gold Project – 2017 Wildlife Screening Level Risk Assessment. March, 2018. Prepared for Nunavut Impact Review Board.

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Golder Associates Ltd. (Golder) 2016. Environmental Impact Statement for the Whale Tail Pit and Haul Road Project – Volume 4: Atmospheric Environment. June, 2016.

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**

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**Table A- 1. Daily temperature, wind speed and wind direction in 2018 at the Meadowbank site.**

<b>Date</b>	<b>Average Temperature (°C)</b>	<b>Minimum Temperature (°C)</b>	<b>Maximum Temperature (°C)</b>	<b>Average Wind Speed (m/s)</b>	<b>Average Wind Direction (deg.)</b>
1/01/18	-30.4	-27.2	-32.2	2.37	245
1/02/18	-29.8	-25.9	-33.7	3.52	324
1/03/18	-32.0	-29.7	-34.3	6.48	315
1/04/18	-30.8	-27.8	-33.7	4.86	310
1/05/18	-34.1	-31.0	-35.6	1.99	311
1/06/18	-33.5	-31.4	-35.5	2.98	116
1/07/18	-28.6	-25.8	-31.6	4.53	99
1/08/18	-22.7	-20.2	-26.0	2.71	147
1/09/18	-23.0	-20.7	-27.5	3.93	298
1/10/18	-33.9	-27.2	-37.3	9.21	310
1/11/18	-34.7	-31.6	-37.1	8.20	302
1/12/18	-30.2	-27.4	-31.6	9.12	310
1/13/18	-24.2	-21.3	-27.5	10.51	305
1/14/18	-27.1	-23.6	-32.9	5.79	285
1/15/18	-32.2	-27.4	-35.0	5.09	302
1/16/18	-22.4	-17.9	-29.3	5.42	198
1/17/18	-18.6	-16.4	-24.0	4.06	86
1/18/18	-23.8	-19.3	-29.5	2.27	323
1/19/18	-31.4	-26.1	-35.6	1.64	330
1/20/18	-26.3	-23.6	-33.2	1.55	94
1/21/18	-37.5	-32.4	-39.7	0.07	71
1/22/18	-38.0	-36.0	-39.1	0.00	0
1/23/18	-37.8	-33.9	-39.2	0.00	0
1/24/18	-36.2	-31.8	-39.4	0.00	0
1/25/18	-29.9	-23.9	-33.1	0.00	0
1/26/18	-23.8	-22.4	-29.5	0.00	0
1/27/18	-25.9	-20.3	-30.2	0.00	0
1/28/18	-21.3	-19.7	-22.7	0.00	299
1/29/18	-24.5	-21.7	-28.0	0.00	0
1/30/18	-29.3	-26.4	-32.1	0.00	0
1/31/18	-30.6	-27.4	-36.3	0.00	0
2/01/18	-35.8	-34.0	-37.0	0.00	0
2/02/18	-36.2	-34.9	-37.3	0.00	0
2/03/18	-35.6	-33.6	-37.3	0.00	0
2/04/18	-31.5	-25.7	-37.1	0.00	0
2/05/18	-38.3	-27.2	-41.3	3.88	318
2/06/18	-32.7	-31.0	-38.3	4.98	296

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Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Average Wind Speed (m/s)	Average Wind Direction (deg.)
2/07/18	-39.5	-33.7	-41.9	5.67	318
2/08/18	-39.5	-37.7	-41.7	6.07	297
2/09/18	-27.2	-19.4	-37.8	5.81	284
2/10/18	-34.6	-24.7	-39.1	8.28	328
2/11/18	-37.9	-34.8	-39.7	4.87	322
2/12/18	-34.2	-31.7	-36.2	1.25	218
2/13/18	-31.1	-29.4	-34.4	1.52	169
2/14/18	-35.9	-34.2	-40.6	2.72	14
2/15/18	-38.3	-35.4	-42.2	6.81	277
2/16/18	-40.8	-38.2	-43.4	4.21	312
2/17/18	-42.4	-39.9	-44.0	1.93	358
2/18/18	-44.1	-41.3	-46.6	4.85	322
2/19/18	-40.9	-39.4	-42.8	7.83	325
2/20/18	-38.3	-35.9	-40.6	6.50	312
2/21/18	-36.0	-30.7	-39.1	2.67	50
2/22/18	-38.9	-36.4	-41.3	3.39	109
2/23/18	-35.6	-30.4	-39.4	3.93	35
2/24/18	-32.2	-23.0	-38.5	4.76	168
2/25/18	-24.5	-21.2	-29.1	3.02	242
2/26/18	-28.7	-24.7	-33.3	2.26	164
2/27/18	-28.6	-25.1	-32.2	2.24	153
2/28/18	-22.6	-15.9	-28.6	6.63	107
3/01/18	-16.9	-13.5	-19.6	9.34	115
3/02/18	-14.7	-13.2	-19.8	4.71	113
3/03/18	-22.8	-18.3	-28.2	1.11	29
3/04/18	-24.4	-18.8	-30.4	2.68	116
3/05/18	-17.7	-15.9	-19.3	7.52	167
3/06/18	-20.4	-18.2	-23.5	3.57	147
3/07/18	-16.4	-12.5	-20.7	5.51	144
3/08/18	-15.7	-13.5	-18.2	6.58	140
3/09/18	-14.9	-12.4	-19.3	3.01	95
3/10/18	-20.7	-16.4	-29.8	2.83	285
3/11/18	-27.8	-24.0	-32.9	2.02	103
3/13/18	-28.0	-23.9	-30.9	3.51	313
3/14/18	-27.7	-24.3	-33.7	6.49	23
3/15/18	-29.9	-23.3	-35.6	4.13	144
3/16/18	-28.4	-21.6	-37.5	8.17	327
3/17/18	-33.6	-28.0	-38.7	3.93	50

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Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Average Wind Speed (m/s)	Average Wind Direction (deg.)
3/18/18	-27.7	-23.0	-29.9	2.12	133
3/19/18	-26.7	-22.0	-30.6	2.47	169
3/20/18	-17.3	-14.1	-22.1	3.48	133
3/21/18	-25.5	-17.7	-32.9	7.34	358
3/22/18	-32.3	-28.04	-35.62	6.171	319.6
3/23/18	-29.54	-23.99	-34.95	3.722	252.5
3/24/18	-23.61	-18.57	-28.65	3.979	168.1
3/25/18	-19.17	-16.76	-21.08	5.668	43.18
3/26/18	-20.7	-15.21	-28.18	7.433	347.7
3/27/18	-30.0	-27.4	-32.7	8.51	284
3/28/18	-30.1	-25.2	-33.8	3.09	64
3/29/18	-26.9	-25.5	-28.5	15.43	343
3/30/18	-28.5	-26.0	-32.0	14.09	327
3/31/18	-25.0	-21.4	-28.6	10.90	331
4/01/18	-25.5	-22.4	-28.9	6.38	18
4/02/18	-25.9	-21.7	-31.9	6.50	324
4/03/18	-24.9	-22.8	-27.4	5.87	322
4/04/18	-15.5	-5.9	-23.4	11.07	39
4/05/18	-19.7	-16.3	-24.8	6.45	21
4/06/18	-19.1	-14.5	-26.6	10.76	340
4/07/18	-26.3	-23.3	-29.0	9.10	330
4/08/18	-20.7	-16.2	-26.8	5.48	312
4/09/18	-23.5	-21.6	-25.4	4.69	296
4/10/18	-25.3	-22.1	-28.2	3.61	297
4/11/18	-28.0	-23.7	-32.2	4.24	305
4/12/18	-28.5	-24.6	-32.6	6.78	336
4/13/18	-24.9	-19.1	-30.4	4.68	339
4/14/18	-20.83	-15.35	-27.23	4.128	221.4
4/15/18	-15.53	-10.83	-20.88	4.528	159.9
4/16/18	-10.35	-6.709	-16.56	5.134	148.8
4/17/18	-14.56	-8.59	-19.93	7.431	342.8
4/18/18	-16.81	-11.7	-22.5	2.775	75.94
4/19/18	-6.722	-1.116	-12.71	10.88	138.9
4/20/18	-10.67	-0.913	-16.29	6.857	227.3
4/21/18	-5.322	-0.51	-15.08	7.708	126.4
4/22/18	-10.2	-1.0	-20.9	7.63	311
4/23/18	-19.4	-15.1	-24.1	3.16	301
4/24/18	-17.3	-12.7	-22.6	3.36	253



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<b>Date</b>	<b>Average Temperature (°C)</b>	<b>Minimum Temperature (°C)</b>	<b>Maximum Temperature (°C)</b>	<b>Average Wind Speed (m/s)</b>	<b>Average Wind Direction (deg.)</b>
4/25/18	-17.9	-12.6	-21.8	3.39	298
4/26/18	-19.1	-13.5	-24.8	5.41	310
4/27/18	-18.9	-15.7	-22.7	3.83	312
4/28/18	-17.2	-12.7	-20.5	4.04	254
4/29/18	-12.8	-5.8	-19.6	4.44	201
4/30/18	-18.6	-16.0	-21.6	7.48	303
5/01/18	-18.3	-14.9	-21.7	8.25	287
5/02/18	-17.4	-13.7	-21.7	3.59	242
5/03/18	-10.1	-5.2	-18.2	8.04	180
5/04/18	-12.8	-5.1	-18.5	5.92	326
5/05/18	-18.7	-14.7	-22.9	4.11	312
5/06/18	-16.4	-11.7	-22.6	2.72	181
5/07/18	-7.8	1.0	-14.3	8.50	220
5/08/18	-15.1	-13.7	-16.6	11.38	312
5/09/18	-13.8	-11.2	-16.6	6.52	301
5/10/18	-11.5	-9.5	-14.8	5.76	317
5/11/18	-8.0	-4.3	-13.6	6.67	291
5/12/18	-11.2	-7.2	-15.3	8.09	314
5/13/18	-12.2	-9.5	-17.6	3.72	217
5/14/18	-11.6	-9.1	-14.3	5.41	294
5/15/18	-13.9	-10.2	-17.1	8.44	317
5/16/18	-12.1	-9.1	-16.6	6.01	332
5/17/18	-10.5	-8.6	-12.8	9.95	314
5/18/18	-10.2	-8.5	-12.8	8.57	313
5/19/18	-8.3	-1.9	-14.3	4.10	258
5/20/18	-6.5	-0.4	-11.0	8.17	303
5/21/18	-9.5	-6.7	-11.7	8.11	302
5/22/18	-7.1	-4.4	-10.3	4.15	305
5/23/18	-6.1	-5.0	-7.4	3.40	197
5/24/18	-3.6	-0.8	-6.3	6.91	116
5/25/18	-3.9	-0.8	-10.0	5.34	9
5/26/18	-8.2	-3.5	-13.2	4.71	88
5/27/18	-2.1	-0.2	-4.3	7.26	132
5/28/18	-2.1	-0.4	-6.8	6.58	354
5/29/18	-6.7	-2.5	-10.0	4.08	257
5/30/18	-2.6	-1.6	-3.3	3.98	107
5/31/18	-4.4	-2.4	-6.1	9.78	300
6/01/18	-6.1	-4.2	-8.7	9.78	303

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Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Average Wind Speed (m/s)	Average Wind Direction (deg.)
6/02/18	-4.7	-2.1	-7.6	3.68	328
6/03/18	-5.9	-0.6	-10.4	3.61	74
6/04/18	-3.9	0.3	-8.2	3.62	91
6/05/18	-2.1	0.8	-5.8	1.71	108
6/06/18	-0.1	3.1	-3.2	2.61	86
6/07/18	-1.6	2.2	-5.6	3.59	82
6/08/18	1.7	6.4	-4.1	2.68	313
6/09/18	3.5	7.5	0.2	2.59	169
6/10/18	3.3	7.3	0.2	5.00	103
6/11/18	5.5	10.7	0.4	4.54	95
6/12/18	4.8	7.6	1.6	8.44	100
6/13/18	3.9	7.2	1.4	9.96	115
6/14/18	6.6	12.4	0.8	5.82	134
6/15/18	8.9	15.0	1.4	3.07	124
6/16/18	9.7	15.1	4.0	3.76	128
6/17/18	7.5	11.0	5.3	2.01	150
6/18/18	10.2	19.3	3.2	4.16	270
6/19/18	5.0	8.4	2.7	6.14	326
6/20/18	8.1	15.6	1.5	3.75	267
6/21/18	9.6	17.8	3.6	5.93	270
6/22/18	4.2	7.2	2.2	9.09	313
6/23/18	5.3	10.0	0.9	5.04	329
6/24/18	6.9	14.1	1.8	2.47	269
6/25/18	8.2	12.6	3.8	5.40	148
6/26/18	5.9	8.4	2.7	8.76	354
6/27/18	5.9	11.0	1.4	4.32	322
6/28/18	10.0	14.4	1.1	2.51	26
6/29/18	8.3	12.0	4.0	5.24	2
6/30/18	8.7	13.7	3.8	2.62	342
7/01/18	12.0	18.7	4.6	2.76	175
7/02/18	11.4	17.5	6.2	5.03	178
7/03/18	8.3	12.1	4.9	6.09	345
7/04/18	9.2	14.6	3.4	4.81	321
7/05/18	12.0	16.6	5.1	1.37	271
7/06/18	11.1	15.5	7.0	3.81	231
7/07/18	12.4	19.9	5.5	3.32	158
7/08/18	9.2	14.5	4.8	6.74	14
7/09/18	7.0	10.7	3.2	5.55	298

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Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Average Wind Speed (m/s)	Average Wind Direction (deg.)
7/10/18	12.0	20.2	5.0	3.98	259
7/11/18	19.1	27.6	10.7	3.22	219
7/12/18	20.7	28.8	13.5	3.68	169
7/13/18	18.0	24.6	12.0	5.19	247
7/14/18	13.2	18.0	9.4	9.63	1
7/15/18	10.5	14.6	6.5	7.59	1
7/16/18	13.0	18.4	6.7	4.79	349
7/17/18	15.3	20.8	8.1	2.57	313
7/18/18	17.5	22.0	12.1	5.28	133
7/19/18	14.1	18.3	11.0	5.84	119
7/20/18	15.2	20.6	9.6	5.27	331
7/21/18	13.9	20.3	8.3	4.89	279
7/22/18	14.1	19.0	10.4	3.56	345
7/23/18	13.7	16.2	9.0	4.71	354
7/24/18	11.3	17.8	6.2	3.93	301
7/25/18	17.1	24.3	9.6	5.07	236
7/26/18	16.1	19.6	12.7	5.13	311
7/27/18	13.2	17.9	8.3	3.92	323
7/28/18	17.2	23.4	11.3	4.59	245
7/29/18	10.5	16.1	7.3	7.33	322
7/30/18	7.6	11.3	3.9	7.29	328
7/31/18	7.4	10.0	5.3	7.05	317
8/01/18	10.8	16.9	4.7	5.67	260
8/02/18	10.6	14.6	5.9	8.38	263
8/03/18	7.8	11.7	4.3	6.35	323
8/04/18	8.4	10.0	7.1	6.21	133
8/05/18	7.3	9.0	5.9	10.43	342
8/06/18	9.6	14.3	6.1	8.38	294
8/07/18	11.5	15.3	6.6	2.35	161
8/08/18	12.0	14.7	9.8	3.82	345
8/09/18	10.6	14.4	7.5	5.80	335
8/10/18	8.8	10.5	7.0	3.40	60
8/11/18	9.1	12.4	5.5	3.69	3
8/12/18	10.6	13.1	7.3	8.19	221
8/13/18	6.7	9.2	5.1	11.52	311
8/14/18	9.5	13.7	4.2	4.37	248
8/15/18	11.0	13.5	8.9	5.88	152
8/16/18	8.2	12.1	4.6	8.57	321

2018 Air Quality and Dustfall Monitoring Report  
Agnico Eagle - Meadowbank Mine

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Average Wind Speed (m/s)	Average Wind Direction (deg.)
8/17/18	8.0	12.7	3.5	6.69	264
8/18/18	13.1	17.6	9.2	5.12	238
8/19/18	9.9	17.5	4.4	5.70	261
8/20/18	5.2	7.7	2.8	8.39	304
8/21/18	5.5	7.4	3.4	4.85	278
8/22/18	4.4	6.7	1.7	6.19	316
8/23/18	3.7	6.5	0.9	6.88	343
8/24/18	3.5	5.0	1.5	10.50	324
8/28/18	7.2	12.0	2.6	1.47	199
8/29/18	9.5	15.1	6.3	3.55	168
8/30/18	8.7	11.7	7.3	3.55	203
8/31/18	8.3	12.7	4.2	2.40	341
9/01/18	8.8	12.7	4.9	2.47	94
9/02/18	8.3	11.5	4.2	4.66	172
9/03/18	8.9	12.3	6.5	7.35	167
9/04/18	8.3	11.7	6.2	5.76	166
9/05/18	4.2	9.1	0.9	5.52	326
9/06/18	4.8	8.4	1.8	5.31	196
9/07/18	2.8	4.0	1.9	8.86	330
9/08/18	5.3	11.2	0.4	4.65	217
9/09/18	3.4	6.7	1.1	5.54	302
9/10/18	2.4	6.8	0.7	7.73	274
9/11/18	2.7	6.1	0.6	6.80	229
9/12/18	0.1	2.6	-1.5	5.97	281
9/13/18	-0.4	1.5	-2.0	6.28	264
9/14/18	0.1	1.9	-1.5	5.97	250
9/15/18	0.3	1.9	-0.7	4.52	243
9/16/18	-0.6	1.2	-1.9	4.92	294
9/17/18	-0.9	0.3	-2.9	7.44	280
9/18/18	1.3	4.1	-1.1	7.93	213
9/19/18	-2.6	3.2	-4.7	6.47	286
9/20/18	-4.0	-2.7	-5.4	5.48	240
9/21/18	-4.2	-2.7	-5.9	3.47	133
9/22/18	-4.1	-1.5	-7.3	6.35	353
9/23/18	-2.4	-0.6	-4.2	6.71	293
9/24/18	0.9	4.1	-1.9	7.28	201
9/25/18	-0.2	2.4	-2.0	4.96	267
9/26/18	-2.2	-0.9	-3.2	4.88	293

2018 Air Quality and Dustfall Monitoring Report  
Agnico Eagle - Meadowbank Mine

<b>Date</b>	<b>Average Temperature (°C)</b>	<b>Minimum Temperature (°C)</b>	<b>Maximum Temperature (°C)</b>	<b>Average Wind Speed (m/s)</b>	<b>Average Wind Direction (deg.)</b>
9/27/18	-2.1	0.2	-3.8	5.99	245
9/28/18	-4.2	-1.1	-7.1	8.67	287
9/29/18	-3.1	-1.9	-4.4	4.44	267
9/30/18	-5.1	-3.6	-7.2	5.34	354
10/01/18	-5.4	-3.9	-6.6	5.11	287
10/02/18	-5.6	-3.9	-7.5	4.49	294
10/03/18	-7.0	-4.8	-11.6	3.96	79
10/04/18	-8.6	-6.6	-11.3	5.52	2
10/05/18	-6.4	-4.0	-10.5	7.73	346
10/06/18	-4.4	-3.6	-5.8	8.06	347
10/07/18	-6.4	-4.4	-7.7	10.27	321
10/08/18	-4.4	-2.5	-6.5	11.85	305
10/09/18	-4.8	-3.6	-6.5	10.13	316
10/10/18	-5.6	-4.6	-6.6	8.24	314
10/11/18	-4.7	-0.9	-7.3	5.05	254
10/12/18	-5.6	-2.5	-8.0	3.35	157
10/13/18	-7.7	-4.4	-10.2	3.14	25
10/14/18	-8.6	-6.9	-10.9	6.06	315
10/15/18	-12.0	-8.9	-14.3	2.55	319
10/16/18	-13.7	-11.7	-15.8	2.95	46
10/17/18	-11.7	-9.5	-15.6	6.67	305
10/18/18	-10.8	-8.5	-14.8	5.46	267
10/19/18	-11.2	-5.6	-17.0	4.91	112
10/20/18	-10.9	-5.8	-15.2	8.13	357
10/21/18	-13.2	-10.2	-15.5	5.04	185
10/22/18	-9.1	-7.1	-12.8	7.41	105
10/23/18	-11.6	-7.5	-17.9	3.50	343
10/24/18	-19.3	-15.9	-21.4	1.30	26
10/25/18	-21.8	-17.4	-23.9	0.59	327
10/26/18	-19.5	-13.1	-23.4	3.69	104
10/27/18	-7.7	-5.4	-13.6	10.81	138
10/28/18	-3.8	-2.3	-6.1	3.71	132
10/29/18	-4.3	-2.5	-8.9	2.72	10
10/30/18	-2.2	-1.0	-3.8	4.48	47
10/31/18	-3.6	-1.9	-5.9	5.93	39
11/01/18	-6.8	-4.0	-11.6	5.91	43
11/02/18	-10.7	-8.1	-14.1	3.90	19
11/03/18	-15.0	-11.9	-17.5	2.49	328

2018 Air Quality and Dustfall Monitoring Report  
Agnico Eagle - Meadowbank Mine

Date	Average Temperature (°C)	Minimum Temperature (°C)	Maximum Temperature (°C)	Average Wind Speed (m/s)	Average Wind Direction (deg.)
11/04/18	-14.9	-11.8	-17.5	2.20	103
11/05/18	-9.6	-7.5	-12.7	8.04	89
11/06/18	-9.7	-8.1	-14.3	7.11	45
11/07/18	-16.4	-14.1	-17.5	8.59	339
11/08/18	-15.5	-13.9	-17.2	10.66	321
11/09/18	-17.8	-16.1	-19.3	10.16	318
11/10/18	-21.9	-18.6	-24.1	3.92	298
11/11/18	-19.9	-18.3	-21.0	1.65	340
11/12/18	-20.3	-18.1	-22.5	1.76	313
11/13/18	-22.4	-19.4	-24.5	1.58	307
11/14/18	-22.9	-19.7	-25.1	3.43	323
11/15/18	-27.5	-19.7	-29.8	3.60	319
11/16/18	-29.9	-28.1	-31.0	2.90	298
11/17/18	-29.5	-26.3	-31.0	0.95	242
11/18/18	-28.8	-26.8	-30.4	3.60	325
11/19/18	-30.8	-29.4	-32.3	4.05	305
11/20/18	-32.4	-29.2	-33.9	3.23	341
11/21/18	-32.9	-31.5	-33.9	4.81	317
11/22/18	-31.8	-26.8	-33.9	2.62	202
11/23/18	-23.4	-20.5	-29.4	7.70	82
11/24/18	-30.3	-23.5	-32.9	5.35	329
11/25/18	-30.9	-27.2	-32.9	3.08	335
11/26/18	-30.3	-28.3	-31.6	1.87	67
11/27/18	-30.0	-28.2	-31.8	0.73	108
11/28/18	-27.4	-24.8	-29.7	1.74	112
11/29/18	-22.4	-17.1	-26.6	1.04	119
11/30/18	-15.6	-12.9	-17.8	0.38	144
12/01/18	-12.6	-11.0	-14.8	0.19	196
12/02/18	-20.2	-14.7	-23.7	0.11	306
12/03/18	-19.2	-14.3	-24.1	0.08	208
12/04/18	-17.0	-11.7	-28.1	6.08	282
12/05/18	-32.1	-28.0	-33.9	8.29	325
12/06/18	-31.0	-28.2	-33.7	6.47	305
12/07/18	-28.9	-25.1	-32.5	1.14	153
12/08/18	-24.9	-22.2	-28.0	3.24	144
12/09/18	-26.7	-21.6	-30.6	3.45	51
12/10/18	-22.8	-16.3	-30.8	7.42	120
12/11/18	-15.2	-13.9	-16.6	10.13	142

2018 Air Quality and Dustfall Monitoring Report  
Agnico Eagle - Meadowbank Mine

<b>Date</b>	<b>Average Temperature (°C)</b>	<b>Minimum Temperature (°C)</b>	<b>Maximum Temperature (°C)</b>	<b>Average Wind Speed (m/s)</b>	<b>Average Wind Direction (deg.)</b>
12/12/18	-11.9	-8.1	-16.0	4.03	175
12/13/18	-12.6	-10.1	-18.0	4.07	123
12/14/18	-9.8	-8.5	-12.1	6.05	128
12/15/18	-11.5	-9.8	-17.0	2.50	206
12/16/18	-18.7	-16.4	-21.6	6.87	295
12/17/18	-22.6	-17.6	-27.4	8.83	322
12/18/18	-28.1	-24.6	-30.1	3.92	318
12/19/18	-23.7	-21.7	-26.0	1.17	68
12/20/18	-28.6	-25.1	-31.2	2.21	320
12/21/18	-31.9	-29.4	-33.7	0.72	100
12/22/18	-31.7	-30.1	-33.2	1.45	102
12/23/18	-30.6	-27.8	-32.4	1.73	104
12/24/18	-24.1	-20.3	-28.3	3.15	149
12/25/18	-21.4	-19.1	-23.7	4.11	252
12/26/18	-28.3	-21.6	-33.9	9.59	333
12/27/18	-34.6	-32.7	-36.3	6.44	307
12/28/18	-34.4	-33.0	-35.2	3.46	297
12/29/18	-34.9	-33.6	-35.7	5.53	326
12/30/18	-34.4	-32.9	-35.1	5.16	323
12/31/18	-33.4	-31.7	-34.8	5.77	316

## **Appendix B**

### **2018 Laboratory Certificates**

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Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UD3840	UD3842	UD3843		UD3898		UD3844		
Sampling Date		2018/07/14	2018/07/14	2018/07/14		2018/07/14		2018/07/14		
	UNITS	DF-18E-25	DF-18E-100	DF-18E-300	QC Batch	DF-18E-1000	QC Batch	DF-18W-25	RDL	QC Batch

Dustfall Determination										
Total Dustfall	mg	52	26	12	9120424	8	9123219	84	1	9120424
Total Dustfall (30 day)	mg/cm2/30day	0.581	0.287	0.134	9120428	0.094	9123220	0.935	0.001	9120428
Total Fixed Dustfall	mg	47	21	6	9120424	6	9123219	76	1	9120424
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.528	0.234	0.067	9120428	0.067	9123220	0.848	0.001	9120428

Physical Properties										
Exposure	days	33	33	33	9120431	33	9123222	33	1	9120431

RDL = Reportable Detection Limit

Maxxam ID		UD3845	UD3846		UD3908		UD3848			
Sampling Date		2018/07/14	2018/07/14		2018/07/14		2018/07/14			
	UNITS	DF-18W-100	DF-18W-300	QC Batch	DF-18W-1000	QC Batch	DF-36E-25	RDL	QC Batch	

Dustfall Determination										
Total Dustfall	mg	MISSING	10	9120424	10	9123219	89	1	9120424	
Total Dustfall (30 day)	mg/cm2/30day	MISSING	0.114	9120428	0.114	9123220	0.988	0.001	9120428	
Total Fixed Dustfall	mg	MISSING	5	9120424	8	9123219	84	1	9120424	
Total Fixed Dustfall (30 day)	mg/cm2/30day	MISSING	0.060	9120428	0.087	9123220	0.935	0.001	9120428	

Physical Properties										
Exposure	days	MISSING	33	9120431	33	9123222	33	1	9120431	

RDL = Reportable Detection Limit

Maxxam ID		UD3849		UD3850		UD3910		UD3851		
Sampling Date		2018/07/14		2018/07/14		2018/07/14		2018/07/14		
	UNITS	DF-36E-100	QC Batch	DF-36E-300	QC Batch	DF-36E-800	QC Batch	DF-36W-25	RDL	QC Batch

Dustfall Determination										
Total Dustfall	mg	43	9120424	10	9130265	6	9123219	25	1	9130265
Total Dustfall (30 day)	mg/cm2/30day	0.474	9120428	0.107	9130266	0.067	9123220	0.281	0.001	9130266
Total Fixed Dustfall	mg	23	9120424	7	9130265	4	9123219	25	1	9130265
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.260	9120428	0.080	9130266	0.047	9123220	0.281	0.001	9130266

Physical Properties										
Exposure	days	33	9120431	33	9130268	33	9123222	33	1	9130268

RDL = Reportable Detection Limit

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UD3852	UD3853	UD3854		UD3856	UD3857		
Sampling Date		2018/07/14	2018/07/14	2018/07/14		2018/07/14	2018/07/14		
	UNITS	DF-36W-100	DF-36W-300	DF-36W-1000	QC Batch	DF-54E-25	DF-54E-100	RDL	QC Batch

<b>Dustfall Determination</b>									
Total Dustfall	mg	15	31	7	9130265	31	14	1	9123219
Total Dustfall (30 day)	mg/cm2/30day	0.167	0.347	0.073	9130266	0.341	0.154	0.001	9123220
Total Fixed Dustfall	mg	14	10	4	9130265	25	11	1	9123219
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.160	0.114	0.040	9130266	0.281	0.127	0.001	9123220
<b>Physical Properties</b>									
Exposure	days	33	33	33	9130268	33	33	1	9123222
RDL = Reportable Detection Limit									

Maxxam ID		UD3858	UD3859	UD3860	UD3861	UD3862	UD3863		
Sampling Date		2018/07/14	2018/07/14	2018/07/14	2018/07/14	2018/07/14	2018/07/14		
	UNITS	DF-54E-300	DF-54E-1000	DF-54W-25	DF-54W-100	DF-54W-300	DF-54W-1000	RDL	QC Batch

<b>Dustfall Determination</b>									
Total Dustfall	mg	8	7	49	23	8	7	1	9123219
Total Dustfall (30 day)	mg/cm2/30day	0.087	0.073	0.548	0.260	0.094	0.073	0.001	9123220
Total Fixed Dustfall	mg	7	3	46	19	7	4	1	9123219
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.080	0.033	0.508	0.214	0.073	0.040	0.001	9123220
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	33	33	1	9123222
RDL = Reportable Detection Limit									

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample UD3845 [DF-18W-100] : Sample label indicates 'sample not opened'

**Results relate only to the items tested.**

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120424	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9123219	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9130265	YL6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	

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

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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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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. #: 670839  
Your Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/09/05**  
Report #: R2614208  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B871316**  
**Received: 2018/08/23, 10:41**

Sample Matrix: Air  
# Samples Received: 24

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	8	2018/08/28	2018/08/29	PTC SOP-00180	AMD 32020
Determination of Dustfall	1	2018/08/28	2018/09/05	PTC SOP-00180	AMD 32020
Determination of Dustfall	11	2018/08/30	2018/08/30	PTC SOP-00180	AMD 32020
Determination of Dustfall	4	2018/09/05	2018/09/05	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	8	2018/08/28	2018/08/29	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	11	2018/08/30	2018/08/30	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	5	2018/09/05	2018/09/05	PTC SOP-00180	AMD 32020
Exposure (Number of days)	8	2018/08/28	2018/08/29	PTC SOP-00154 PTC SOP-00180	
Exposure (Number of days)	1	2018/08/28	2018/09/05	PTC SOP-00154 PTC SOP-00180	
Exposure (Number of days)	11	2018/08/30	2018/08/30	PTC SOP-00154 PTC SOP-00180	
Exposure (Number of days)	4	2018/09/05	2018/09/05	PTC SOP-00154 PTC SOP-00180	

This report shall not be reproduced except in full, without the written approval of the laboratory.  
Results relate only to the items tested.

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

**Encryption Key**

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

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

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

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UD3840	UD3842	UD3843		UD3898		UD3844		
Sampling Date		2018/07/14	2018/07/14	2018/07/14		2018/07/14		2018/07/14		
	UNITS	DF-18E-25	DF-18E-100	DF-18E-300	QC Batch	DF-18E-1000	QC Batch	DF-18W-25	RDL	QC Batch

Dustfall Determination										
Total Dustfall	mg	52	26	12	9120424	8	9123219	84	1	9120424
Total Dustfall (30 day)	mg/cm2/30day	0.581	0.287	0.134	9120428	0.094	9123220	0.935	0.001	9120428
Total Fixed Dustfall	mg	47	21	6	9120424	6	9123219	76	1	9120424
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.528	0.234	0.067	9120428	0.067	9123220	0.848	0.001	9120428

Physical Properties										
Exposure	days	33	33	33	9120431	33	9123222	33	1	9120431

RDL = Reportable Detection Limit

Maxxam ID		UD3845	UD3846		UD3908		UD3848			
Sampling Date		2018/07/14	2018/07/14		2018/07/14		2018/07/14			
	UNITS	DF-18W-100	DF-18W-300	QC Batch	DF-18W-1000	QC Batch	DF-36E-25	RDL	QC Batch	

Dustfall Determination										
Total Dustfall	mg	MISSING	10	9120424	10	9123219	89	1	9120424	
Total Dustfall (30 day)	mg/cm2/30day	MISSING	0.114	9120428	0.114	9123220	0.988	0.001	9120428	
Total Fixed Dustfall	mg	MISSING	5	9120424	8	9123219	84	1	9120424	
Total Fixed Dustfall (30 day)	mg/cm2/30day	MISSING	0.060	9120428	0.087	9123220	0.935	0.001	9120428	

Physical Properties										
Exposure	days	MISSING	33	9120431	33	9123222	33	1	9120431	

RDL = Reportable Detection Limit

Maxxam ID		UD3849		UD3850		UD3910		UD3851		
Sampling Date		2018/07/14		2018/07/14		2018/07/14		2018/07/14		
	UNITS	DF-36E-100	QC Batch	DF-36E-300	QC Batch	DF-36E-800	QC Batch	DF-36W-25	RDL	QC Batch

Dustfall Determination										
Total Dustfall	mg	43	9120424	10	9130265	6	9123219	25	1	9130265
Total Dustfall (30 day)	mg/cm2/30day	0.474	9120428	0.107	9130266	0.067	9123220	0.281	0.001	9130266
Total Fixed Dustfall	mg	23	9120424	7	9130265	4	9123219	25	1	9130265
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.260	9120428	0.080	9130266	0.047	9123220	0.281	0.001	9130266

Physical Properties										
Exposure	days	33	9120431	33	9130268	33	9123222	33	1	9130268

RDL = Reportable Detection Limit

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UD3852	UD3853	UD3854		UD3856	UD3857		
Sampling Date		2018/07/14	2018/07/14	2018/07/14		2018/07/14	2018/07/14		
	UNITS	DF-36W-100	DF-36W-300	DF-36W-1000	QC Batch	DF-54E-25	DF-54E-100	RDL	QC Batch

<b>Dustfall Determination</b>									
Total Dustfall	mg	15	31	7	9130265	31	14	1	9123219
Total Dustfall (30 day)	mg/cm2/30day	0.167	0.347	0.073	9130266	0.341	0.154	0.001	9123220
Total Fixed Dustfall	mg	14	10	4	9130265	25	11	1	9123219
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.160	0.114	0.040	9130266	0.281	0.127	0.001	9123220
<b>Physical Properties</b>									
Exposure	days	33	33	33	9130268	33	33	1	9123222
RDL = Reportable Detection Limit									

Maxxam ID		UD3858	UD3859	UD3860	UD3861	UD3862	UD3863		
Sampling Date		2018/07/14	2018/07/14	2018/07/14	2018/07/14	2018/07/14	2018/07/14		
	UNITS	DF-54E-300	DF-54E-1000	DF-54W-25	DF-54W-100	DF-54W-300	DF-54W-1000	RDL	QC Batch

<b>Dustfall Determination</b>									
Total Dustfall	mg	8	7	49	23	8	7	1	9123219
Total Dustfall (30 day)	mg/cm2/30day	0.087	0.073	0.548	0.260	0.094	0.073	0.001	9123220
Total Fixed Dustfall	mg	7	3	46	19	7	4	1	9123219
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.080	0.033	0.508	0.214	0.073	0.040	0.001	9123220
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	33	33	1	9123222
RDL = Reportable Detection Limit									



Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample UD3845 [DF-18W-100] : Sample label indicates 'sample not opened'

**Results relate only to the items tested.**

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9120424	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9123219	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9130265	YL6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	

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

Maxxam Job #: B871316  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/14 - 2018/08/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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. #: 670839  
 Your Project #: 2018/08/16 - 2018/09/28  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/10/29**  
 Report #: R2641705  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B889664**

**Received: 2018/10/15, 10:42**

Sample Matrix: Air  
 # Samples Received: 24

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	17	2018/10/25	2018/10/25	PTC SOP-00180	AMD 32020
Determination of Dustfall	7	2018/10/29	2018/10/29	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	17	2018/10/25	2018/10/25	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	7	2018/10/29	2018/10/29	PTC SOP-00180	AMD 32020
Exposure (Number of days)	17	2018/10/25	2018/10/25	PTC SOP-00154 PTC SOP-00180	
Exposure (Number of days)	7	2018/10/29	2018/10/29	PTC SOP-00154 PTC SOP-00180	

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 Results relate only to the items tested.

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

**Encryption Key**

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

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

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Maxxam Job #: B889664  
Report Date: 2018/10/29

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/16 - 2018/09/28  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UN8982	UN8983	UN8984		UN9003		
Sampling Date		2018/08/16	2018/08/16	2018/08/16		2018/08/16		
	UNITS	DF-WTH-18E-25	DF-WTH-18E-100	DF-WTH-18E-300	QC Batch	DF-WTH-18E-1000	RDL	QC Batch

Dustfall Determination								
Total Dustfall	mg	86	40	25	9199521	2	1	9204378
Total Dustfall (30 day)	mg/cm2/30day	0.731	0.338	0.214	9199524	0.021	0.001	9204379
Total Fixed Dustfall	mg	69	28	8	9199521	1	1	9204378
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.588	0.240	0.065	9199524	0.010	0.001	9204379
Physical Properties								
Exposure	days	43	43	43	9199527	43	1	9204381
RDL = Reportable Detection Limit								

Maxxam ID		UN8985	UN8986	UN8987		
Sampling Date		2018/08/16	2018/08/16	2018/08/16		
	UNITS	DF-WTH-18W-25	DF-WTH-18W-100	DF-WTH-18W-300	RDL	QC Batch
Dustfall Determination						
Total Dustfall	mg	62	32	4	1	9199521
Total Dustfall (30 day)	mg/cm2/30day	0.529	0.277	0.034	0.001	9199524
Total Fixed Dustfall	mg	47	30	<1	1	9199521
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.401	0.254	<0.001	0.001	9199524
Physical Properties						
Exposure	days	43	43	43	1	9199527
RDL = Reportable Detection Limit						

Maxxam ID		UN9004		UN8988	UN8989	UN8990		
Sampling Date		2018/08/16		2018/08/16	2018/08/16	2018/08/16		
	UNITS	DF-WTH-18W-1000	QC Batch	DF-WTH-36E-25	DF-WTH-36E-100	DF-WTH-36E-300	RDL	QC Batch
Dustfall Determination								
Total Dustfall	mg	11	9204378	420	16	9	1	9199521
Total Dustfall (30 day)	mg/cm2/30day	0.092	9204379	3.498	0.136	0.077	0.001	9199524
Total Fixed Dustfall	mg	8	9204378	410	16	7	1	9199521
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.072	9204379	3.415	0.136	0.061	0.001	9199524
Physical Properties								
Exposure	days	43	9204381	44	44	44	1	9199527
RDL = Reportable Detection Limit								

Maxxam Job #: B889664  
Report Date: 2018/10/29

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/16 - 2018/09/28  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UN9005		UN8991	UN8992	UN8993		
Sampling Date		2018/08/16		2018/08/16	2018/08/16	2018/08/16		
	UNITS	DF-WTH-36E-800	QC Batch	DF-WTH-36W-25	DF-WTH-36W-100	DF-WTH-36W-300	RDL	QC Batch

Dustfall Determination								
Total Dustfall	mg	7	9204378	24	8	8	1	9199521
Total Dustfall (30 day)	mg/cm2/30day	0.062	9204379	0.200	0.063	0.067	0.001	9199524
Total Fixed Dustfall	mg	7	9204378	24	8	2	1	9199521
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.062	9204379	0.200	0.063	0.019	0.001	9199524
Physical Properties								
Exposure	days	43	9204381	44	44	44	1	9199527
RDL = Reportable Detection Limit								

Maxxam ID		UN8994	UN8995	UN8996	UN8997		
Sampling Date		2018/08/16	2018/08/16	2018/08/16	2018/08/16		
	UNITS	DF-WTH-36W-1000	DF-WTH-54E-25	DF-WTH-54E-100	DF-WTH-54E-300	RDL	QC Batch
Dustfall Determination							
Total Dustfall	mg	24	27	11	7	1	9199521
Total Dustfall (30 day)	mg/cm2/30day	0.200	0.233	0.090	0.057	0.001	9199524
Total Fixed Dustfall	mg	6	27	10	3	1	9199521
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.048	0.233	0.082	0.025	0.001	9199524
Physical Properties							
Exposure	days	44	43	43	43	1	9199527
RDL = Reportable Detection Limit							

Maxxam ID		UN8998		UN8999	UN9000	UN9001		
Sampling Date		2018/08/16		2018/08/16	2018/08/16	2018/08/16		
	UNITS	DF-WTH-54E-1000	QC Batch	DF-WTH-54W-25	DF-WTH-54W-100	DF-WTH-54W-300	RDL	QC Batch
Dustfall Determination								
Total Dustfall	mg	1	9199521	37	28	15	1	9204378
Total Dustfall (30 day)	mg/cm2/30day	0.010	9199524	0.320	0.238	0.128	0.001	9204379
Total Fixed Dustfall	mg	<1	9199521	35	19	8	1	9204378
Total Fixed Dustfall (30 day)	mg/cm2/30day	<0.001	9199524	0.295	0.161	0.072	0.001	9204379
Physical Properties								
Exposure	days	43	9199527	43	43	43	1	9204381
RDL = Reportable Detection Limit								

Maxxam Job #: B889664  
Report Date: 2018/10/29

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/16 - 2018/09/28  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

<b>Maxxam ID</b>		UN9002		
<b>Sampling Date</b>		2018/08/16		
	<b>UNITS</b>	<b>DF-WTH-54W-1000</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Dustfall Determination</b>				
Total Dustfall	mg	6	1	9204378
Total Dustfall (30 day)	mg/cm2/30day	0.055	0.001	9204379
Total Fixed Dustfall	mg	2	1	9204378
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.021	0.001	9204379
<b>Physical Properties</b>				
Exposure	days	43	1	9204381
RDL = Reportable Detection Limit				

Maxxam Job #: B889664  
Report Date: 2018/10/29

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/16 - 2018/09/28  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample UN8988 [DF-WTH-36E-25] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

Sample UN8989 [DF-WTH-36E-100] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

Sample UN8990 [DF-WTH-36E-300] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

Sample UN8991 [DF-WTH-36W-25] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

Sample UN8992 [DF-WTH-36W-100] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

Sample UN8993 [DF-WTH-36W-300] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

Sample UN8994 [DF-WTH-36W-1000] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

Sample UN9005 [DF-WTH-36E-800] : Sample end date on COC listed as 2018/09/30.  
Sample end date on sample label listed as 2018/09/29.  
2018/09/29 used as end date in calculation of final results.

**Results relate only to the items tested.**



Maxxam Job #: B889664  
Report Date: 2018/10/29

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/16 - 2018/09/28  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9199521	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9204378	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	

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

Maxxam Job #: B889664  
Report Date: 2018/10/29

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/16 - 2018/09/28  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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. #: 670839  
 Your Project #: 2018/07/01 - 2018/08/05  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2019/02/01**  
 Report #: R2681404  
 Version: 2 - Revision

**CERTIFICATE OF ANALYSIS – REVISED REPORT**

**MAXXAM JOB #: B867716**  
**Received: 2018/08/14, 07:51**

Sample Matrix: Air  
 # Samples Received: 58

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	34	2018/08/17	2018/08/17	PTC SOP-00180	AMD 32020
Determination of Dustfall	24	2018/08/23	2018/08/23	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	34	2018/08/17	2018/08/17	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	24	2018/08/23	2018/08/23	PTC SOP-00180	AMD 32020
Exposure (Number of days)	34	2018/08/17	2018/08/17	PTC SOP-00154 PTC SOP-00180	
Exposure (Number of days)	24	2018/08/23	2018/08/23	PTC SOP-00154 PTC SOP-00180	

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

**Encryption Key**

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

=====

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Maxxam Job #: B867716  
Report Date: 2019/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/01 - 2018/08/05  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UB4139	UB4140	UB4141	UB4142	UB4143	UB4144		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-11E-25	DF-11E-100	DF-11E-300	DF-11W-25	DF-11W-100	DF-11W-300	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	23	8	14	44	20	11	1	9106459
Total Dustfall (30 day)	mg/cm2/30day	0.239	0.082	0.151	0.466	0.208	0.113	0.001	9106465
Total Fixed Dustfall	mg	22	<1	8	33	15	7	1	9106459
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.227	<0.001	0.082	0.346	0.157	0.069	0.001	9106465
<b>Physical Properties</b>									
Exposure	days	35	35	35	35	35	35	1	9106476
RDL = Reportable Detection Limit									

Maxxam ID		UB4145	UB4146	UB4147	UB4148	UB4149	UB4150		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-11W-1000	DF-11E-25 DUP	DF-18E-25	DF-18E-100	DF-18E-300	DF-18W-25	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	8	34	200	48	40	140	1	9106459
Total Dustfall (30 day)	mg/cm2/30day	0.082	0.359	2.097	0.504	0.416	1.417	0.001	9106465
Total Fixed Dustfall	mg	5	29	190	44	34	120	1	9106459
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.050	0.302	2.040	0.466	0.359	1.234	0.001	9106465
<b>Physical Properties</b>									
Exposure	days	35	35	35	35	35	35	1	9106476
RDL = Reportable Detection Limit									

Maxxam ID		UB4151	UB4152	UB4153	UB4154	UB4155		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-18W-100	DF-18W-300	DF-18W-300 DUP	DF-25E-25	DF-25E-100	RDL	QC Batch
<b>Dustfall Determination</b>								
Total Dustfall	mg	52	34	29	34	13	1	9106459
Total Dustfall (30 day)	mg/cm2/30day	0.542	0.359	0.302	0.374	0.140	0.001	9106465
Total Fixed Dustfall	mg	49	23	20	31	10	1	9106459
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.510	0.239	0.208	0.347	0.107	0.001	9106465
<b>Physical Properties</b>								
Exposure	days	35	35	35	33	33	1	9106476
RDL = Reportable Detection Limit								

Maxxam Job #: B867716  
Report Date: 2019/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/01 - 2018/08/05  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UB4156	UB4157	UB4158	UB4159	UB4160	UB4161		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-25E-300	DF-25W-25	DF-25W-100	DF-25W-300	DF-25W-25	DF-25E-100 DUP	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	8	86	22	15	6	14	1	9106482
Total Dustfall (30 day)	mg/cm2/30day	0.087	0.962	0.247	0.167	0.067	0.154	0.001	9106492
Total Fixed Dustfall	mg	7	77	21	13	4	12	1	9106482
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.073	0.862	0.234	0.140	0.047	0.134	0.001	9106492
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	33	33	1	9106494
RDL = Reportable Detection Limit									

Maxxam ID		UB4162	UB4163	UB4164	UB4165	UB4166	UB4167		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-50E-25	DF-50E-100	DF-50E-300	DF-50E-1000	DF-50W-25	DF-50W-100	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	89	41	17	10	31	11	1	9106482
Total Dustfall (30 day)	mg/cm2/30day	0.988	0.454	0.194	0.107	0.347	0.127	0.001	9106492
Total Fixed Dustfall	mg	73	35	16	8	29	11	1	9106482
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.808	0.387	0.180	0.087	0.327	0.127	0.001	9106492
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	33	33	1	9106494
RDL = Reportable Detection Limit									

Maxxam ID		UB4168	UB4169	UB4170	UB4171	UB4172		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-50W-300	DF-50W-1000	DF-70E-25	DF-70E-100	DF-70E-300	RDL	QC Batch
<b>Dustfall Determination</b>								
Total Dustfall	mg	19	10	120	35	23	1	9106482
Total Dustfall (30 day)	mg/cm2/30day	0.214	0.107	1.356	0.387	0.260	0.001	9106492
Total Fixed Dustfall	mg	18	6	110	33	21	1	9106482
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.200	0.067	1.262	0.367	0.234	0.001	9106492
<b>Physical Properties</b>								
Exposure	days	33	33	33	33	33	1	9106494
RDL = Reportable Detection Limit								

Maxxam Job #: B867716  
Report Date: 2019/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/01 - 2018/08/05  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UB4173	UB4174	UB4175	UB4176	UB4177	UB4178		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/30	2018/07/01		
	UNITS	DF-70E-1000	DF-70W-25	DF-70W-100	DF-70W-300	DF-70W-1000	DF-70E-300 DUP	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	140	32	19	12	8	17	1	9113779
Total Dustfall (30 day)	mg/cm2/30day	1.536	0.354	0.207	0.134	0.087	0.187	0.001	9113792
Total Fixed Dustfall	mg	69	28	15	9	5	13	1	9113779
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.768	0.307	0.167	0.100	0.053	0.147	0.001	9113792
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	33	33	1	9113821
RDL = Reportable Detection Limit									

Maxxam ID		UB4179	UB4180	UB4181	UB4182	UB4183	UB4184		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-78E-25	DF-78E-100	DF-78E-300	DF-78E-1000	DF-78W-25	DF-78W-100	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	210	58	38	40	50	23	1	9113779
Total Dustfall (30 day)	mg/cm2/30day	2.291	0.648	0.427	0.447	0.554	0.260	0.001	9113792
Total Fixed Dustfall	mg	200	54	20	8	47	22	1	9113779
Total Fixed Dustfall (30 day)	mg/cm2/30day	2.251	0.601	0.227	0.087	0.528	0.247	0.001	9113792
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	33	33	1	9113821
RDL = Reportable Detection Limit									

Maxxam ID		UB4185	UB4186	UB4187	UB4188		UB4189		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01		2018/07/01		
	UNITS	DF-78W-300	DF-78W-1000	DF-78E-25 DUP	DF-84E-25	RDL	DF-84E-100	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	34	10	310	88	1	19	1	9113779
Total Dustfall (30 day)	mg/cm2/30day	0.374	0.107	3.433	0.975	0.001	0.207	0.001	9113792
Total Fixed Dustfall	mg	17	7	300	82	1	17	1	9113779
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.194	0.073	3.386	0.915	0.001	0.187	0.001	9113792
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	1	33	0.1	9113821
RDL = Reportable Detection Limit									

Maxxam Job #: B867716  
Report Date: 2019/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/01 - 2018/08/05  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UB4190	UB4191	UB4192	UB4193	UB4194	UB4195		
Sampling Date		2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01	2018/07/01		
	UNITS	DF-84E-300	DF-84E-1000	DF-84W-25	DF-84W-100	DF-84W-300	DF-84W-1000	RDL	QC Batch
<b>Dustfall Determination</b>									
Total Dustfall	mg	6	4	37	14	10	5	1	9113848
Total Dustfall (30 day)	mg/cm2/30day	0.067	0.040	0.407	0.160	0.107	0.060	0.001	9113853
Total Fixed Dustfall	mg	5	<1	35	12	7	4	1	9113848
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.053	0.007	0.387	0.134	0.073	0.047	0.001	9113853
<b>Physical Properties</b>									
Exposure	days	33	33	33	33	33	33	1	9113859
RDL = Reportable Detection Limit									

Maxxam ID		UB4196		
Sampling Date		2018/07/01		
	UNITS	DF-84W-100 DUP	RDL	QC Batch
<b>Dustfall Determination</b>				
Total Dustfall	mg	15	1	9113848
Total Dustfall (30 day)	mg/cm2/30day	0.167	0.001	9113853
Total Fixed Dustfall	mg	14	1	9113848
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.160	0.001	9113853
<b>Physical Properties</b>				
Exposure	days	33	1	9113859
RDL = Reportable Detection Limit				

Maxxam Job #: B867716  
Report Date: 2019/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/01 - 2018/08/05  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample UB4157 [DF-25W-25] : multiple samples labeled as DF-25W-25

Sample UB4160 [DF-25W-25] : multiple samples labeled as DF-25W-25

Sample UB4173 [DF-70E-1000] : Sampling dates listed on jar as 2018/07/30 - 2018/08/03. Differs from COC.

**Results relate only to the items tested.**



Maxxam Job #: B867716  
Report Date: 2019/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/01 - 2018/08/05  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9106459	YL6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9106482	YL6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9113779	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9113848	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	

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

Maxxam Job #: B867716  
Report Date: 2019/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/01 - 2018/08/05  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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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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. #: 670839  
Your Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/10/22**  
Report #: R2638368  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B887958**  
**Received: 2018/10/09, 15:33**

Sample Matrix: Air  
# Samples Received: 58

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	20	2018/10/18	2018/10/18	PTC SOP-00180	AMD 32020
Determination of Dustfall	38	2018/10/22	2018/10/22	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	20	2018/10/18	2018/10/18	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	38	2018/10/22	2018/10/22	PTC SOP-00180	AMD 32020
Exposure (Number of days)	20	2018/10/18	2018/10/18	PTC SOP-00154 PTC SOP-00180	
Exposure (Number of days)	38	2018/10/22	2018/10/22	PTC SOP-00154 PTC SOP-00180	

This report shall not be reproduced except in full, without the written approval of the laboratory.  
Results relate only to the items tested.

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

**Encryption Key**

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

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

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UM8763	UM8764	UM8765		UM8793		UM8766		
Sampling Date		2018/08/05	2018/08/05	2018/08/05		2018/08/05		2018/08/05		
	UNITS	DF-11E-25	DF-11E-100	DF-11E-300	QC Batch	DF-11W-25	QC Batch	DF-11W-100	RDL	QC Batch

Dustfall Determination										
Total Dustfall	mg	41	25	12	9188998	32	9194239	44	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	0.366	0.220	0.108	9189000	0.290	9194244	0.398	0.001	9189000
Total Fixed Dustfall	mg	40	21	7	9188998	14	9194239	16	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.355	0.188	0.059	9189000	0.129	9194244	0.145	0.001	9189000
Physical Properties										
Exposure	days	41	41	41	9189003	41	9194246	41	1	9189003
RDL = Reportable Detection Limit										

Maxxam ID		UM8767	UM8768		UM8794		UM8769		
Sampling Date		2018/08/05	2018/08/05		2018/08/05		2018/08/05		
	UNITS	DF-11W-300	DF-11W-1000	QC Batch	DF-11E-25 DUP	QC Batch	DF-18E-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	8	8	9188998	49	9194239	370	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	0.075	0.070	9189000	0.441	9194244	3.347	0.001	9189000
Total Fixed Dustfall	mg	5	4	9188998	32	9194239	310	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.048	0.038	9189000	0.290	9194244	2.745	0.001	9189000
Physical Properties									
Exposure	days	41	41	9189003	41	9194246	41	1	9189003
RDL = Reportable Detection Limit									

Maxxam ID		UM8770	UM8780		UM8795		UM8781		
Sampling Date		2018/08/05	2018/08/05		2018/08/05		2018/08/05		
	UNITS	DF-18E-100	DF-18E-300	QC Batch	DF-18W-25	QC Batch	DF-18W-100	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	59	40	9188998	89	9194239	36	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	0.527	0.360	9189000	0.796	9194244	0.323	0.001	9189000
Total Fixed Dustfall	mg	55	35	9188998	85	9194239	34	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.495	0.317	9189000	0.758	9194244	0.306	0.001	9189000
Physical Properties									
Exposure	days	41	41	9189003	41	9194246	41	1	9189003
RDL = Reportable Detection Limit									

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UM8782	UM8783	UM8784	UM8785	UM8786	UM8787		
Sampling Date		2018/08/05	2018/08/05	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-18W-300	DF-18W-300 DUP	DF-25E-25	DF-25E-100	DF-25E-300	DF-25W-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	<1	49	50	18	13	140	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	NAN	0.437	0.425	0.154	0.113	1.158	0.001	9189000
Total Fixed Dustfall	mg	<1	20	44	14	10	130	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	NAN	0.175	0.379	0.123	0.087	1.087	0.001	9189000
Physical Properties									
Exposure	days	DAMAGED	41	43	43	43	43	1	9189003

RDL = Reportable Detection Limit

Maxxam ID		UM8788	UM8789	UM8790	UM8791		UM8792		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03		2018/08/03		
	UNITS	DF-25W-100	DF-25W-300	DF-25W-1000	DF-25E-100 DUP	QC Batch	DF-50E-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	11	9	11	13	9188998	29	1	9194239
Total Dustfall (30 day)	mg/cm2/30day	0.097	0.077	0.092	0.108	9189000	0.245	0.001	9194244
Total Fixed Dustfall	mg	9	7	5	10	9188998	13	1	9194239
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.077	0.056	0.041	0.082	9189000	0.110	0.001	9194244
Physical Properties									
Exposure	days	43	43	43	43	9189003	44	1	9194246

RDL = Reportable Detection Limit

Maxxam ID		UM8828	UM8829	UM8830	UM8831	UM8832	UM8833		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-50E-100	DF-50E-300	DF-50E-1000	DF-50W-25	DF-50W-100	DF-50W-300	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	28	8	<1	24	39	5	1	9194239
Total Dustfall (30 day)	mg/cm2/30day	0.233	0.065	<0.001	0.200	0.326	0.040	0.001	9194244
Total Fixed Dustfall	mg	17	5	<1	18	11	<1	1	9194239
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.143	0.040	<0.001	0.150	0.090	<0.001	0.001	9194244
Physical Properties									
Exposure	days	44	44	44	44	44	44	1	9194246

RDL = Reportable Detection Limit

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UM8834	UM8835	UM8836	UM8837	UM8838	UM8839		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-50W-1000	DF-70E-25	DF-70E-100	DF-70E-300	DF-70E-1000	DF-70W-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	2	61	35	4	2	28	1	9194239
Total Dustfall (30 day)	mg/cm2/30day	0.020	0.511	0.291	0.035	0.020	0.235	0.001	9194244
Total Fixed Dustfall	mg	<1	53	19	3	<1	21	1	9194239
Total Fixed Dustfall (30 day)	mg/cm2/30day	<0.001	0.446	0.160	0.025	0.005	0.175	0.001	9194244
Physical Properties									
Exposure	days	44	44	44	44	44	44	1	9194246
RDL = Reportable Detection Limit									

Maxxam ID		UM8840	UM8841	UM8842		UM8843	UM8844		
Sampling Date		2018/08/03	2018/08/03	2018/08/03		2018/08/03	2018/08/03		
	UNITS	DF-70W-100	DF-70W-300	DF-70W-1000	QC Batch	DF-70W-300 DUP	DF-78E-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	14	13	10	9194239	12	130	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	0.115	0.105	0.082	9194244	0.100	1.051	0.001	9194253
Total Fixed Dustfall	mg	10	8	6	9194239	6	110	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.080	0.064	0.047	9194244	0.047	0.894	0.001	9194253
Physical Properties									
Exposure	days	44	44	44	9194246	44	44	1	9194255
RDL = Reportable Detection Limit									

Maxxam ID		UM8845	UM8846	UM8847	UM8898	UM8899	UM8900		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-78E-100	DF-78E-300	DF-78E-1000	DF-78W-25	DF-78W-100	DF-78W-300	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	25	14	4	77	22	7	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	0.205	0.115	0.033	0.639	0.184	0.060	0.001	9194253
Total Fixed Dustfall	mg	13	4	<1	68	12	2	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.110	0.035	<0.001	0.571	0.101	0.020	0.001	9194253
Physical Properties									
Exposure	days	44	44	44	44	44	44	1	9194255
RDL = Reportable Detection Limit									

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UM8901	UM8904	UM8905	UM8906	UM8907	UM8908		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-78W-1000	DF-78E-25 DUP	DF-84E-25	DF-84E-100	DF-84E-300	DF-84E-1000	RDL	QC Batch

<b>Dustfall Determination</b>									
Total Dustfall	mg	<1	160	5	29	13	4	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	<0.001	1.363	0.045	0.240	0.109	0.035	0.001	9194253
Total Fixed Dustfall	mg	<1	150	<1	<1	<1	1	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	<0.001	1.238	0.005	0.007	<0.001	0.009	0.001	9194253

<b>Physical Properties</b>									
Exposure	days	44	44	44	44	44	44	1	9194255

RDL = Reportable Detection Limit

Maxxam ID		UM8909	UM8910	UM8917	UM8918	UM8919		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/01	2018/08/03		
	UNITS	DF-84W-25	DF-84W-100	DF-84W-300	DF-84W-1000	DF-84W-100 DUP	RDL	QC Batch

<b>Dustfall Determination</b>								
Total Dustfall	mg	47	17	6	3	16	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	0.393	0.144	0.046	0.025	0.134	0.001	9194253
Total Fixed Dustfall	mg	37	6	<1	<1	8	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.311	0.048	<0.001	<0.001	0.067	0.001	9194253

<b>Physical Properties</b>								
Exposure	days	44	44	44	46	44	1	9194255

RDL = Reportable Detection Limit

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample UM8918 [DF-84W-1000] : Start date listed as 2018/08/01 on sample label.  
2018/08/01 used as start date in calculation of final results.

**Results relate only to the items tested.**



Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9188998	YL6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9194239	SS6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9194250	SS6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	

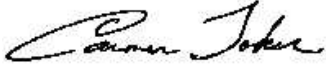
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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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Carmen Toker, CT, Manager Air Laboratory Services

---

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

Your P.O. #: 670839  
 Your Project #: 2018/08/05 - 2018/09/15  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/10/22**  
 Report #: R2638368  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B887958**  
**Received: 2018/10/09, 15:33**

Sample Matrix: Air  
 # Samples Received: 58

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	20	2018/10/18	2018/10/18	PTC SOP-00180	AMD 32020
Determination of Dustfall	38	2018/10/22	2018/10/22	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	20	2018/10/18	2018/10/18	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	38	2018/10/22	2018/10/22	PTC SOP-00180	AMD 32020
Exposure (Number of days)	20	2018/10/18	2018/10/18	PTC SOP-00154 PTC SOP-00180	
Exposure (Number of days)	38	2018/10/22	2018/10/22	PTC SOP-00154 PTC SOP-00180	

This report shall not be reproduced except in full, without the written approval of the laboratory.  
 Results relate only to the items tested.

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

**Encryption Key**

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

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

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

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UM8763	UM8764	UM8765		UM8793		UM8766		
Sampling Date		2018/08/05	2018/08/05	2018/08/05		2018/08/05		2018/08/05		
	UNITS	DF-11E-25	DF-11E-100	DF-11E-300	QC Batch	DF-11W-25	QC Batch	DF-11W-100	RDL	QC Batch

Dustfall Determination										
Total Dustfall	mg	41	25	12	9188998	32	9194239	44	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	0.366	0.220	0.108	9189000	0.290	9194244	0.398	0.001	9189000
Total Fixed Dustfall	mg	40	21	7	9188998	14	9194239	16	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.355	0.188	0.059	9189000	0.129	9194244	0.145	0.001	9189000
Physical Properties										
Exposure	days	41	41	41	9189003	41	9194246	41	1	9189003

RDL = Reportable Detection Limit

Maxxam ID		UM8767	UM8768		UM8794		UM8769		
Sampling Date		2018/08/05	2018/08/05		2018/08/05		2018/08/05		
	UNITS	DF-11W-300	DF-11W-1000	QC Batch	DF-11E-25 DUP	QC Batch	DF-18E-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	8	8	9188998	49	9194239	370	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	0.075	0.070	9189000	0.441	9194244	3.347	0.001	9189000
Total Fixed Dustfall	mg	5	4	9188998	32	9194239	310	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.048	0.038	9189000	0.290	9194244	2.745	0.001	9189000
Physical Properties									
Exposure	days	41	41	9189003	41	9194246	41	1	9189003

RDL = Reportable Detection Limit

Maxxam ID		UM8770	UM8780		UM8795		UM8781		
Sampling Date		2018/08/05	2018/08/05		2018/08/05		2018/08/05		
	UNITS	DF-18E-100	DF-18E-300	QC Batch	DF-18W-25	QC Batch	DF-18W-100	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	59	40	9188998	89	9194239	36	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	0.527	0.360	9189000	0.796	9194244	0.323	0.001	9189000
Total Fixed Dustfall	mg	55	35	9188998	85	9194239	34	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.495	0.317	9189000	0.758	9194244	0.306	0.001	9189000
Physical Properties									
Exposure	days	41	41	9189003	41	9194246	41	1	9189003

RDL = Reportable Detection Limit

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### RESULTS OF CHEMICAL ANALYSES OF AIR

Maxxam ID		UM8782	UM8783	UM8784	UM8785	UM8786	UM8787		
Sampling Date		2018/08/05	2018/08/05	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-18W-300	DF-18W-300 DUP	DF-25E-25	DF-25E-100	DF-25E-300	DF-25W-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	<1	49	50	18	13	140	1	9188998
Total Dustfall (30 day)	mg/cm2/30day	NAN	0.437	0.425	0.154	0.113	1.158	0.001	9189000
Total Fixed Dustfall	mg	<1	20	44	14	10	130	1	9188998
Total Fixed Dustfall (30 day)	mg/cm2/30day	NAN	0.175	0.379	0.123	0.087	1.087	0.001	9189000
Physical Properties									
Exposure	days	DAMAGED	41	43	43	43	43	1	9189003

RDL = Reportable Detection Limit

Maxxam ID		UM8788	UM8789	UM8790	UM8791		UM8792		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03		2018/08/03		
	UNITS	DF-25W-100	DF-25W-300	DF-25W-1000	DF-25E-100 DUP	QC Batch	DF-50E-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	11	9	11	13	9188998	29	1	9194239
Total Dustfall (30 day)	mg/cm2/30day	0.097	0.077	0.092	0.108	9189000	0.245	0.001	9194244
Total Fixed Dustfall	mg	9	7	5	10	9188998	13	1	9194239
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.077	0.056	0.041	0.082	9189000	0.110	0.001	9194244
Physical Properties									
Exposure	days	43	43	43	43	9189003	44	1	9194246

RDL = Reportable Detection Limit

Maxxam ID		UM8828	UM8829	UM8830	UM8831	UM8832	UM8833		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-50E-100	DF-50E-300	DF-50E-1000	DF-50W-25	DF-50W-100	DF-50W-300	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	28	8	<1	24	39	5	1	9194239
Total Dustfall (30 day)	mg/cm2/30day	0.233	0.065	<0.001	0.200	0.326	0.040	0.001	9194244
Total Fixed Dustfall	mg	17	5	<1	18	11	<1	1	9194239
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.143	0.040	<0.001	0.150	0.090	<0.001	0.001	9194244
Physical Properties									
Exposure	days	44	44	44	44	44	44	1	9194246

RDL = Reportable Detection Limit

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UM8834	UM8835	UM8836	UM8837	UM8838	UM8839		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-50W-1000	DF-70E-25	DF-70E-100	DF-70E-300	DF-70E-1000	DF-70W-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	2	61	35	4	2	28	1	9194239
Total Dustfall (30 day)	mg/cm2/30day	0.020	0.511	0.291	0.035	0.020	0.235	0.001	9194244
Total Fixed Dustfall	mg	<1	53	19	3	<1	21	1	9194239
Total Fixed Dustfall (30 day)	mg/cm2/30day	<0.001	0.446	0.160	0.025	0.005	0.175	0.001	9194244
Physical Properties									
Exposure	days	44	44	44	44	44	44	1	9194246
RDL = Reportable Detection Limit									

Maxxam ID		UM8840	UM8841	UM8842		UM8843	UM8844		
Sampling Date		2018/08/03	2018/08/03	2018/08/03		2018/08/03	2018/08/03		
	UNITS	DF-70W-100	DF-70W-300	DF-70W-1000	QC Batch	DF-70W-300 DUP	DF-78E-25	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	14	13	10	9194239	12	130	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	0.115	0.105	0.082	9194244	0.100	1.051	0.001	9194253
Total Fixed Dustfall	mg	10	8	6	9194239	6	110	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.080	0.064	0.047	9194244	0.047	0.894	0.001	9194253
Physical Properties									
Exposure	days	44	44	44	9194246	44	44	1	9194255
RDL = Reportable Detection Limit									

Maxxam ID		UM8845	UM8846	UM8847	UM8898	UM8899	UM8900		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-78E-100	DF-78E-300	DF-78E-1000	DF-78W-25	DF-78W-100	DF-78W-300	RDL	QC Batch

Dustfall Determination									
Total Dustfall	mg	25	14	4	77	22	7	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	0.205	0.115	0.033	0.639	0.184	0.060	0.001	9194253
Total Fixed Dustfall	mg	13	4	<1	68	12	2	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.110	0.035	<0.001	0.571	0.101	0.020	0.001	9194253
Physical Properties									
Exposure	days	44	44	44	44	44	44	1	9194255
RDL = Reportable Detection Limit									

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UM8901	UM8904	UM8905	UM8906	UM8907	UM8908		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03	2018/08/03		
	UNITS	DF-78W-1000	DF-78E-25 DUP	DF-84E-25	DF-84E-100	DF-84E-300	DF-84E-1000	RDL	QC Batch

<b>Dustfall Determination</b>									
Total Dustfall	mg	<1	160	5	29	13	4	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	<0.001	1.363	0.045	0.240	0.109	0.035	0.001	9194253
Total Fixed Dustfall	mg	<1	150	<1	<1	<1	1	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	<0.001	1.238	0.005	0.007	<0.001	0.009	0.001	9194253

<b>Physical Properties</b>									
Exposure	days	44	44	44	44	44	44	1	9194255

RDL = Reportable Detection Limit

Maxxam ID		UM8909	UM8910	UM8917	UM8918	UM8919		
Sampling Date		2018/08/03	2018/08/03	2018/08/03	2018/08/01	2018/08/03		
	UNITS	DF-84W-25	DF-84W-100	DF-84W-300	DF-84W-1000	DF-84W-100 DUP	RDL	QC Batch

<b>Dustfall Determination</b>								
Total Dustfall	mg	47	17	6	3	16	1	9194250
Total Dustfall (30 day)	mg/cm2/30day	0.393	0.144	0.046	0.025	0.134	0.001	9194253
Total Fixed Dustfall	mg	37	6	<1	<1	8	1	9194250
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.311	0.048	<0.001	<0.001	0.067	0.001	9194253

<b>Physical Properties</b>								
Exposure	days	44	44	44	46	44	1	9194255

RDL = Reportable Detection Limit

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample UM8918 [DF-84W-1000] : Start date listed as 2018/08/01 on sample label.  
2018/08/01 used as start date in calculation of final results.

**Results relate only to the items tested.**



Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9188998	YL6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9194239	SS6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
9194250	SS6	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	

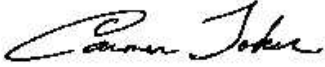
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B887958  
Report Date: 2018/10/22

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/05 - 2018/09/15  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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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Carmen Toker, CT, Manager Air Laboratory Services

---

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Your P.O. #: 576765  
 Your Project #: 2017/12/20 - 2018/01/21  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/02/01**  
 Report #: R2508489  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B806825**  
**Received: 2018/01/29, 12:57**

Sample Matrix: Air  
 # Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis (1)	3	2018/02/01	2018/02/01	PTC SOP-00148	Passive NO2 in ATM

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.  
 (1) The detection limit is based on a 30 day sampling period.

**Encryption Key**

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

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Maxxam Job #: B806825  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765  
Sampler Initials: PA

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		SW4701	SW4702	SW4703		
Sampling Date		2017/12/20 14:05	2017/12/20 15:00			
	UNITS	NO2-1	NO2-2	NO2: BLANK	RDL	QC Batch
<b>Passive Monitoring</b>						
Calculated NO2	ppb	1.3	3.5	0.2	0.1	8899725
RDL = Reportable Detection Limit						

Maxxam Job #: B806825  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765  
Sampler Initials: PA

### GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B806825  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765  
Sampler Initials: PA

### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8899725	YL6	Spiked Blank	Calculated NO2	2018/02/01		102	%	90 - 110
8899725	YL6	Method Blank	Calculated NO2	2018/02/01	<0.1		ppb	

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


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

Maxxam Job #: B806825  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765  
Sampler Initials: PA

### 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. #: 576765  
 Your Project #: 2017/12/20 - 2018/01/21  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/02/01**  
 Report #: R2508803  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B806827**  
**Received: 2018/01/29, 13:00**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2018/02/01	2018/02/01		PTC SOP-00180
Total & Fixed Dustfall	4	2018/02/01	2018/02/01	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/02/01	2018/02/01	PTC SOP-00146 PTC SOP-00154 PTC SOP-00180	

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

Encryption Key

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

=====  
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Maxxam Job #: B806827  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		SW4706		SW4707		SW4708	SW4709		
Sampling Date		2017/12/20		2017/12/20		2017/12/20	2017/12/20		
	UNITS	1	RDL	2	RDL	3	4	RDL	QC Batch
<b>Industrial</b>									
Exposure	days	32	1	32	1	32	32	1	8900471
<b>Dustfall Determination</b>									
Total Dustfall	mg	5	1	19	2	19	5	1	8900468
Total Dustfall (30 day)	mg/cm2/30day	0.055	0.001	0.217	0.002	0.220	0.056	0.001	8900469
Total Fixed Dustfall	mg	5	1	13	2	15	4	1	8900468
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.055	0.001	0.145	0.002	0.174	0.048	0.001	8900469
RDL = Reportable Detection Limit									

Maxxam Job #: B806827  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B806827  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

### QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	8900468	YL6	Method Blank	Total Dustfall	2018/02/01	<1		mg	
				Total Fixed Dustfall	2018/02/01	<1		mg	


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

Maxxam Job #: B806827  
Report Date: 2018/02/01

Agnico Eagle Mines Ltd.  
Client Project #: 2017/12/20 - 2018/01/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

### 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

---

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. #: 576765  
 Your Project #: PM2.5/10/TSP  
 Site#: DEC 2017/JAN 2018  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/02/02**  
 Report #: R2509093  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B806817**  
**Received: 2018/01/29, 12:42**

Sample Matrix: Filter  
 # Samples Received: 30

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Mass Determination(ug/filter)	30	N/A	2018/02/02	PTC SOP-00151	EPA 2.12 Monitoring

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

**Encryption Key**

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

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

Maxxam Job #: B806817  
Report Date: 2018/02/02

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		SW4603	SW4604	SW4605	SW4606	SW4607		
Sampling Date		2017/12/27	2018/01/02	2018/01/08	2018/01/14	2018/01/20		
	UNITS	PM2.5 RP20697	PM2.5 RP9947	PM2.5 RP1119	PM2.5 RP1127	PM2.5 RP13258	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	8	3	5	3	4	3	8900843
RDL = Reportable Detection Limit								

Maxxam ID		SW4608	SW4609	SW4610	SW4611	SW4613		
Sampling Date		2017/12/21	2017/12/27	2018/01/02	2018/01/08	2017/12/27		
	UNITS	PM2.5 RP23780	PM2.5 RP852	PM2.5 RP13278	PM2.5 RP17813	PM10 RP16554	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	20	52	36	72	25	3	8900843
RDL = Reportable Detection Limit								

Maxxam ID		SW4614	SW4615	SW4616	SW4617	SW4618	SW4619		
Sampling Date		2018/01/02	2018/01/08	2018/01/14	2018/01/20	2017/12/27	2018/01/02		
	UNITS	PM10 RP29710	PM10 RP27590	PM10 RP1111	PM10 RP15165	PM10 RP22018	PM10 RP877	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	54	38	74	28	6	11	3	8900843
RDL = Reportable Detection Limit									

Maxxam ID		SW4620	SW4621	SW4623	SW4624	SW4625	SW4626		
Sampling Date		2018/01/08	2018/01/14	2017/12/27	2018/01/02	2018/01/08	2018/01/14		
	UNITS	PM10 RP22216	PM10 RP13060	TSP RP9906	TSP RP10079	TSP RP1134	TSP RP22896	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	9	16	26	90	66	146	3	8900843
RDL = Reportable Detection Limit									

Maxxam ID		SW4627	SW4628	SW4629	SW4630	SW4669	SW4670		
Sampling Date		2018/01/20	2017/12/15	2017/12/21	2017/12/27	2018/01/02	2018/01/08		
	UNITS	TSP RP10067	TSP RP27583	TSP RP27820	TSP RP46604	TSP RP27277	TSP RP916	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	45	44	25	89	62	93	3	8900843
RDL = Reportable Detection Limit									

Maxxam Job #: B806817  
Report Date: 2018/02/02

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		SW4671		SW4672		
Sampling Date						
	UNITS	LAB BLANK	QC Batch	TRAVEL BLANK RP10313	RDL	QC Batch
<b>PM2.5/10</b>						
Particulate Matter	ug/filter	<3	8900843	3	3	8900850
RDL = Reportable Detection Limit						

Maxxam Job #: B806817  
Report Date: 2018/02/02

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

### GENERAL COMMENTS

**Results relate only to the items tested.**




Maxxam Job #: B806817  
Report Date: 2018/02/02

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 576765

### 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. #: 670839  
 Your Project #: PM2.5/10/TSP  
 Site#: JAN/FEB/MAR 2018  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/03/26**  
 Report #: R2532484  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B819583**  
**Received: 2018/03/16, 10:09**

Sample Matrix: Filter  
 # Samples Received: 44

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Mass Determination(ug/filter)	44	N/A	2018/03/26	PTC SOP-00151	EPA 2.12 Monitoring

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

**Encryption Key**

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

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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 #: B819583  
Report Date: 2018/03/26

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		TC6808	TC6809	TC6810	TC6811	TC6812		
Sampling Date		2018/01/26	2018/02/01	2018/02/13	2018/02/19	2018/02/25		
	UNITS	PM2.5 RP22024	PM2.5 RP10081	PM2.5 RP90833	PM2.5 RP16059	PM2.5 RP16041	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	3	4	<3	9	4	3	8943963
RDL = Reportable Detection Limit								

Maxxam ID		TC6813	TC6814	TC6815	TC6816	TC6817		
Sampling Date		2018/03/03	2018/03/09	2018/01/14	2018/01/20	2018/01/26		
	UNITS	PM2.5 RP1118	PM2.5 RP16084	PM2.5 RP15145	PM2.5 RP23775	PM2.5 RP20571	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	6	6	37	<3	30	3	8943963
RDL = Reportable Detection Limit								

Maxxam ID		TC6818	TC6819	TC6820	TC6821	TC6822		
Sampling Date		2018/02/13	2018/02/19	2018/02/25	2018/03/03	2018/01/26		
	UNITS	PM2.5 RP84085	PM2.5 RP15515	PM2.5 RP13797	PM2.5 RP22219	PM10 RP16484	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	48	58	24	10	4	3	8943963
RDL = Reportable Detection Limit								

Maxxam ID		TC6823	TC6824	TC6825	TC6826	TC6827		
Sampling Date		2018/02/01	2018/02/13	2018/02/19	2018/02/25	2018/01/20		
	UNITS	PM10 RP17823	PM10 RP2884	PM10 RP47776	PM10 RP28689	PM10 RP16047	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	79	51	149	117	16	3	8943963
RDL = Reportable Detection Limit								

Maxxam ID		TC6828	TC6829	TC6830	TC6831	TC6832	TC6833		
Sampling Date		2018/01/26	2018/02/13	2018/02/19	2018/02/25	2018/03/03	2018/01/26		
	UNITS	PM10 RP15511	PM10 RP903	PM10 RP76193	PM10 RP47788	PM10 RP47786	TSP RP9924	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	16	10	<3	19	<3	30	3	8943963
RDL = Reportable Detection Limit									

Maxxam Job #: B819583  
Report Date: 2018/03/26

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		TC6834	TC6835	TC6836	TC6837		TC6846	TC6847		
Sampling Date		2018/02/01	2018/02/07	2018/02/13	2018/02/19		2018/02/25	2018/03/03		
	UNITS	TSP RP910	TSP RP25519	TSP RP47782	TSP RP10082	QC Batch	TSP RP27289	TSP RP15486	RDL	QC Batch

PM2.5/10										
Particulate Matter	ug/filter	50	62	81	62	8943963	52	155	3	8943964
RDL = Reportable Detection Limit										

Maxxam ID		TC6848	TC6849	TC6850	TC6853	TC6854	TC6855		
Sampling Date		2018/03/09	2018/01/14	2018/01/20	2018/01/26	2018/02/01	2018/02/07		
	UNITS	TSP RP4242	TSP RP23778	TSP RP47790	TSP RP86125	TSP RP872	TSP RP27773	RDL	QC Batch

PM2.5/10										
Particulate Matter	ug/filter	1210	68	32	46	71	89	3	8943964	
RDL = Reportable Detection Limit										

Maxxam ID		TC6856	TC6857	TC6858	TC6859	TC6860	TC6861		
Sampling Date		2018/02/13	2018/02/19	2018/02/25	2018/03/03				
	UNITS	TSP RP22022	TSP RP1110	TSP RP27477	TSP RP22209	LAB BLANK	TRAVEL BLANK RP10304	RDL	QC Batch

PM2.5/10										
Particulate Matter	ug/filter	92	187	71	596	<3	3	3	8943964	
RDL = Reportable Detection Limit										

Maxxam Job #: B819583  
Report Date: 2018/03/26

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample TC6848 [TSP RP4242] : TSP RP4242 (TC6848) received to the Lab with visible dirt on filter. SS


**Results relate only to the items tested.**

Maxxam Job #: B819583  
Report Date: 2018/03/26

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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. #: 670839  
 Your Project #: 2018/01/21 - 2018/03/09  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/03/21**  
 Report #: R2530887  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B819577**  
**Received: 2018/03/16, 10:05**

Sample Matrix: Air  
 # Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis (1)	3	2018/03/19	2018/03/21	PTC SOP-00148	Passive NO2 in ATM

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.  
 (1) The detection limit is based on a 30 day sampling period.

**Encryption Key**

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

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Maxxam Job #: B819577  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TC6783	TC6784	TC6785		
Sampling Date		2018/01/21 10:40	2018/01/21 11:15			
	UNITS	NO2-1	NO2-2	NO2: BLANK	RDL	QC Batch
<b>Passive Monitoring</b>						
Calculated NO2	ppb	1.4	2.7	0.2	0.1	8938069
RDL = Reportable Detection Limit						



Maxxam Job #: B819577  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

### GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B819577  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8938069	YL6	Spiked Blank	Calculated NO2	2018/03/19		101	%	90 - 110
8938069	YL6	Method Blank	Calculated NO2	2018/03/19	<0.1		ppb	

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

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

Maxxam Job #: B819577  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
Your Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/03/21**  
Report #: R2531101  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B819580**  
**Received: 2018/03/16, 10:07**

Sample Matrix: Air  
# Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2018/03/20	2018/03/21		PTC SOP-00180
Total & Fixed Dustfall	4	2018/03/20	2018/03/21	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/03/20	2018/03/20	PTC SOP-00146 PTC SOP-00154 PTC SOP-00180	

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

Encryption Key

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

=====  
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Maxxam Job #: B819580  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TC6788	TC6789	TC6790	TC6791		
Sampling Date		2018/01/21	2018/01/21	2018/01/21	2018/01/21		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Industrial</b>							
Exposure	days	47	47	47	47	1	8939094
<b>Dustfall Determination</b>							
Total Dustfall	mg	7	10	24	4	1	8939091
Total Dustfall (30 day)	mg/cm2/30day	0.055	0.081	0.188	0.028	0.001	8939092
Total Fixed Dustfall	mg	5	7	17	2	1	8939091
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.038	0.056	0.131	0.019	0.001	8939092
RDL = Reportable Detection Limit							

Maxxam Job #: B819580  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B819580  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### QUALITY ASSURANCE REPORT

QA/QC									
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits	
8939091	YL6	Method Blank	Total Dustfall	2018/03/21	<1		mg		
			Total Fixed Dustfall	2018/03/21	<1		mg		

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

Maxxam Job #: B819580  
Report Date: 2018/03/21

Agnico Eagle Mines Ltd.  
Client Project #: 2018/01/21 - 2018/03/09  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: 2018/03/09 - 2018/04/14  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/04/27**  
 Report #: R2546874  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B829825**

**Received: 2018/04/23, 10:00**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall-mg/cm2/30 days	4	2018/04/25	2018/04/26		PTC SOP-00180
Total & Fixed Dustfall	4	2018/04/25	2018/04/26	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/04/25	2018/04/26	PTC SOP-00146 PTC SOP-00154 PTC SOP-00180	

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

Encryption Key

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

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

Maxxam Job #: B829825  
Report Date: 2018/04/27

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TH6563	TH6564	TH6566	TH6567		
Sampling Date		2018/03/09	2018/03/09	2018/03/09	2018/03/09		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Industrial</b>							
Exposure	days	36	36	36	36	1	8969060
<b>Dustfall Determination</b>							
Total Dustfall	mg	7	31	14	7	1	8969050
Total Dustfall (30 day)	mg/cm2/30day	0.073	0.312	0.147	0.067	0.001	8969055
Total Fixed Dustfall	mg	7	13	14	6	1	8969050
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.073	0.135	0.147	0.061	0.001	8969055
RDL = Reportable Detection Limit							

Maxxam Job #: B829825  
Report Date: 2018/04/27

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B829825  
Report Date: 2018/04/27

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### QUALITY ASSURANCE REPORT

QA/QC									
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits	
8969050	YL6	Method Blank	Total Dustfall	2018/04/26	<1		mg		
			Total Fixed Dustfall	2018/04/26	<1		mg		

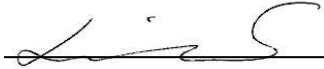
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B829825  
Report Date: 2018/04/27

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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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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. #: 670839  
Your Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/04/26**  
Report #: R2546365  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B829823**  
**Received: 2018/04/23, 09:57**

Sample Matrix: Air  
# Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis (1)	3	2018/04/25	2018/04/26	PTC SOP-00148	Passive NO2 in ATM

\* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.  
(1) The detection limit is based on a 30 day sampling period.

**Encryption Key**

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

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

Maxxam Job #: B829823  
Report Date: 2018/04/26

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TH6541	TH6542	TH6543		
Sampling Date		2018/03/09 14:45	2018/03/09 14:00			
	<b>UNITS</b>	<b>NO2-1</b>	<b>NO2-2</b>	<b>NO2: BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Passive Monitoring</b>						
Calculated NO2	ppb	<0.1	0.4	0.7	0.1	8969581
RDL = Reportable Detection Limit						

Maxxam Job #: B829823  
Report Date: 2018/04/26

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

### GENERAL COMMENTS

Results relate only to the items tested.



Maxxam Job #: B829823  
Report Date: 2018/04/26

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
8969581	YL6	Spiked Blank	Calculated NO2	2018/04/25		94	%	90 - 110
8969581	YL6	Method Blank	Calculated NO2	2018/04/25	<0.1		ppb	

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

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

Maxxam Job #: B829823  
Report Date: 2018/04/26

Agnico Eagle Mines Ltd.  
Client Project #: 2018/03/09 - 2018/04/14  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: PA

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: 2018/04/14 - 2018/05/16  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/05/30**  
 Report #: R2561090  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B839420**  
**Received: 2018/05/24, 07:57**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	4	2018/05/30	2018/05/30	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	1	2018/05/29	2018/05/30	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	3	2018/05/30	2018/05/30	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/05/30	2018/05/30	PTC SOP-00154 PTC SOP-00180	

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

**Encryption Key**

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

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

Maxxam Job #: B839420  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TM3131	TM3132	TM3133	TM3134		
Sampling Date		2018/04/14	2018/04/14	2018/04/14	2018/04/14		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Dustfall Determination</b>							
Total Dustfall	mg	60	11	34	12	1	9005761
Total Dustfall (30 day)	mg/cm2/30day	0.689	0.124	0.386	0.138	0.001	9005762
Total Fixed Dustfall	mg	55	6	29	8	1	9005761
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.627	0.069	0.331	0.090	0.001	9005762
<b>Physical Properties</b>							
Exposure	days	32	32	32	32	1	9005764
RDL = Reportable Detection Limit							

Maxxam Job #: B839420  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B839420  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9005761	XSZ	Method Blank	Total Dustfall	2018/05/30	<1		mg	
			Total Fixed Dustfall	2018/05/30	<1		mg	
9005764	XSZ	RPD [TM3131-01]	Exposure	2018/05/30	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 #: B839420  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
Your Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/05/30**  
Report #: R2560882  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B839419**  
**Received: 2018/05/24, 07:54**

Sample Matrix: Air  
# Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis	3	2018/05/28	2018/05/30	PTC SOP-00148	Passive NO2 in ATM

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

Encryption Key

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

=====

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Maxxam Job #: B839419  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TM3128	TM3129	TM3130		
Sampling Date		2018/04/14 15:00	2018/04/14 14:00			
	<b>UNITS</b>	<b>NO2-1</b>	<b>NO2-2</b>	<b>NO2: BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Passive Monitoring</b>						
Calculated NO2	ppb	<0.1	<0.1	0.4	0.1	9002726
RDL = Reportable Detection Limit						

Maxxam Job #: B839419  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**GENERAL COMMENTS**

**Results relate only to the items tested.**

Maxxam Job #: B839419  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9002726	YL6	Spiked Blank	Calculated NO2	2018/05/28		99	%	90 - 110
9002726	YL6	Method Blank	Calculated NO2	2018/05/28	<0.1		ppb	

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

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

Maxxam Job #: B839419  
Report Date: 2018/05/30

Agnico Eagle Mines Ltd.  
Client Project #: 2018/04/14 - 2018/05/16  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: 2018/06/21 - 2018/07/21  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/08/02**  
 Report #: R2598971  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B862486**  
**Received: 2018/07/27, 12:27**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	4	2018/08/02	2018/08/02	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	4	2018/08/02	2018/08/02	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/08/02	2018/08/02	PTC SOP-00154 PTC SOP-00180	

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 Results relate only to the items tested.

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

**Encryption Key**

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

=====

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Maxxam Job #: B862486  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TY3914	TY3915	TY3916	TY3917		
Sampling Date		2018/06/21 09:05	2018/06/21 08:36	2018/06/21 10:30	2018/06/21 10:00		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Dustfall Determination</b>							
Total Dustfall	mg	13	9	6	11	1	9088537
Total Dustfall (30 day)	mg/cm2/30day	0.154	0.110	0.073	0.132	0.001	9088538
Total Fixed Dustfall	mg	11	9	6	10	1	9088537
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.132	0.110	0.073	0.118	0.001	9088538
<b>Physical Properties</b>							
Exposure	days	30	30	30	30	1	9088540
RDL = Reportable Detection Limit							

Maxxam Job #: B862486  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B862486  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	9088537	YL6	Method Blank	Total Dustfall		<1		mg	
				Total Fixed Dustfall		<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.									



Maxxam Job #: B862486  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
Your Project #: 2018/06/21 - 2018/07/21  
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: 2018/08/02**  
Report #: R2598942  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B862489**  
**Received: 2018/07/27, 12:35**

Sample Matrix: Air  
# Samples Received: 3

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
NO2 Passive Analysis	3	2018/07/30	2018/08/02	PTC SOP-00148	Passive NO2 in ATM

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Results relate only to the items tested.

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**Encryption Key**

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

=====

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Maxxam Job #: B862489  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TY3982	TY3983	TY3984		
Sampling Date		2018/06/20 09:05	2018/06/21 08:36			
	<b>UNITS</b>	<b>NO2-1 EMR</b>	<b>NO2-2 FGL</b>	<b>NO2: BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Passive Monitoring</b>						
Calculated NO2	ppb	0.4	2.9	0.2	0.1	9083738
RDL = Reportable Detection Limit						

Maxxam Job #: B862489  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B862489  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9083738	YL6	Spiked Blank	Calculated NO2			99	%	90 - 110
9083738	YL6	Method Blank	Calculated NO2		<0.1		ppb	

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

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

Maxxam Job #: B862489  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: 2018/06/21 - 2018/07/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: PM2.5/10/TSP  
 Site#: MAY/JUNE 2018  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/08/02**  
 Report #: R2598579  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B862463**  
**Received: 2018/07/27, 12:08**

Sample Matrix: Filter  
 # Samples Received: 20

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Mass Determination(ug/filter)	20	N/A	2018/08/02	PTC SOP-00151	EPA 2.12 Monitoring

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 Results relate only to the items tested.

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**Encryption Key**

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

=====

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Maxxam Job #: B862463  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		TY3801	TY3802	TY3803	TY3804	TY3805		
Sampling Date		2018/05/14	2018/05/20	2018/05/26	2018/06/01	2018/06/07		
	UNITS	PM2.5 RP47806	PM2.5 RP916	PM2.5 RP47808	PM2.5 RP47798	PM2.5 RP47805	RDL	QC Batch
<b>PM2.5/10</b>								
Particulate Matter	ug/filter	78	49	26	35	56	3	9088275
RDL = Reportable Detection Limit								

Maxxam ID		TY3813	TY3814	TY3815	TY3816	TY3817	TY3827		
Sampling Date		2018/05/14	2018/05/20	2018/05/26	2018/06/01	2018/06/07	2018/05/08		
	UNITS	PM10 RP47816	PM10 RP27277	PM10 RP1117	PM10 RP47815	PM10 RP15519	TSP RP14991	RDL	QC Batch
<b>PM2.5/10</b>									
Particulate Matter	ug/filter	177	172	49	81	176	494	3	9088275
RDL = Reportable Detection Limit									

Maxxam ID		TY3828	TY3829	TY3830	TY3831	TY3832	TY3833		
Sampling Date		2018/05/14	2018/05/20	2018/05/08	2018/05/14	2018/05/20	2018/05/26		
	UNITS	TSP RP47800	TSP RP47812	TSP RP877	TSP RP9904	TSP RP90554	TSP RP15825	RDL	QC Batch
<b>PM2.5/10</b>									
Particulate Matter	ug/filter	16	112	914	630	168	202	3	9088275
RDL = Reportable Detection Limit									

Maxxam ID		TY3834	TY3841	TY3879		
Sampling Date		2018/06/01				
	UNITS	TSP RP47801	LAB BLANK	TRAVEL BLANK-22024	RDL	QC Batch
<b>PM2.5/10</b>						
Particulate Matter	ug/filter	449	<3	7	3	9088275
RDL = Reportable Detection Limit						



Maxxam Job #: B862463  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample TY3827 [TSP RP14991] : TSP RP14991 (TY3827) received to the Lab with big perforation on the filter. SS

**Results relate only to the items tested.**

Maxxam Job #: B862463  
Report Date: 2018/08/02

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### 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. #: 670839  
Your Project #: 2018/05/16 - 2018/06/21  
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: 2018/07/10**  
Report #: R2586118  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B853805**  
**Received: 2018/07/03, 15:01**

Sample Matrix: Air  
# Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis	3	2018/07/04	2018/07/09	PTC SOP-00148	Passive NO2 in ATM

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Results relate only to the items tested.

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

**Encryption Key**

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

=====

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Maxxam Job #: B853805  
Report Date: 2018/07/10

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TT9913	TT9914	TT9915		
Sampling Date		2018/05/16 17:15	2018/05/16 16:15			
	UNITS	NO2-1 EMR	NO2-2 FGL	NO2: BLANK	RDL	QC Batch
<b>Passive Monitoring</b>						
Calculated NO2	ppb	0.8	1.3	0.3	0.1	9049369
RDL = Reportable Detection Limit						

Maxxam Job #: B853805  
Report Date: 2018/07/10

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**GENERAL COMMENTS**

**Results relate only to the items tested.**

Maxxam Job #: B853805  
Report Date: 2018/07/10

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9049369	YL6	Spiked Blank	Calculated NO2			101	%	90 - 110
9049369	YL6	Method Blank	Calculated NO2		<0.1		ppb	

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

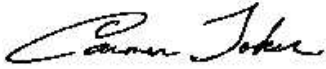
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Maxxam Job #: B853805  
Report Date: 2018/07/10

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### VALIDATION SIGNATURE PAGE

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Carmen Toker, CT, Manager Air Laboratory Services

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Your P.O. #: 670839  
 Your Project #: 2018/05/16 - 2018/06/21  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/07/12**  
 Report #: R2587697  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B853809**  
**Received: 2018/07/03, 15:03**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	4	2018/07/12	2018/07/12	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	4	2018/07/12	2018/07/12	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/07/12	2018/07/12	PTC SOP-00154 PTC SOP-00180	

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**Encryption Key**

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

=====

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Maxxam Job #: B853809  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		TT9943	TT9944	TT9945	TT9946		
Sampling Date		2018/05/16	2018/05/16	2018/05/16	2018/05/16		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Dustfall Determination</b>							
Total Dustfall	mg	28	16	16	24	1	9059345
Total Dustfall (30 day)	mg/cm2/30day	0.288	0.165	0.159	0.245	0.001	9059346
Total Fixed Dustfall	mg	25	7	13	22	1	9059345
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.257	0.067	0.129	0.220	0.001	9059346
<b>Physical Properties</b>							
Exposure	days	36	36	36	36	1	9059348
RDL = Reportable Detection Limit							

Maxxam Job #: B853809  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B853809  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### QUALITY ASSURANCE REPORT

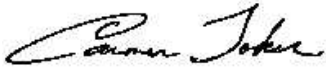
QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	9059345	YL6	Method Blank	Total Dustfall		<1		mg	
				Total Fixed Dustfall		<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.									

Maxxam Job #: B853809  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: 2018/05/16 - 2018/06/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Carmen Toker, CT, Manager Air Laboratory Services

---

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Your P.O. #: 670839  
 Your Project #: PM2.5/10/TSP  
 Site#: MAR/APR/MAY 2018  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/07/12**  
 Report #: R2587473  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B853810**  
**Received: 2018/07/03, 15:06**

Sample Matrix: Filter  
 # Samples Received: 41

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Mass Determination(ug/filter)	41	N/A	2018/07/11	PTC SOP-00151	EPA 2.12 Monitoring

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**Encryption Key**

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

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Maxxam Job #: B853810  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		TT9951	TT9952	TT9953	TT9954	TT9955		
Sampling Date		2018/03/21	2018/03/27	2018/04/02	2018/04/08	2018/04/14		
	UNITS	PM2.5 RP28677	PM2.5 RP15823	PM2.5 RP13060	PM2.5 RP932	PM2.5 RP13258	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	<3	8	12	9	12	3	9059353
RDL = Reportable Detection Limit								

Maxxam ID		TT9956	TT9957	TT9958	TT9959	TT9960		
Sampling Date		2018/03/09	2018/04/08	2018/04/14	2018/04/20	2018/04/26		
	UNITS	PM2.5 RP1112	PM2.5 RP14993	PM2.5 RP1104	PM2.5 RP47774	PM2.5 RP15527	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	24	47	11	9	98	3	9059353
RDL = Reportable Detection Limit								

Maxxam ID		TT9961	TT9962	TT9965	TT9966	TT9967		
Sampling Date		2018/05/02	2018/05/08	2018/03/03	2018/03/09	2018/03/15		
	UNITS	PM2.5 RP4246	PM2.5 RP47811	PM10 RP921	PM10 RP16049	PM10 RP47775	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	56	53	33	<3	120	3	9059353
RDL = Reportable Detection Limit								

Maxxam ID		TT9968	TT9969	TT9970	TT9971	TT9972	TT9973		
Sampling Date		2018/03/21	2018/03/27	2018/04/02	2018/04/08	2018/03/09	2018/04/08		
	UNITS	PM10 RP10067	PM10 RP20697	PM10 RP47773	PM10 RP1134	PM10 RP879	PM10 RP22896	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	285	87	88	160	30	37	3	9059353
RDL = Reportable Detection Limit									

Maxxam ID		TT9974	TT9975	TT9976	TT9977	TT9978	TT9979		
Sampling Date		2018/04/14	2018/04/20	2018/04/26	2018/05/02	2018/05/08	2018/03/15		
	UNITS	PM10 RP14986	PM10 RP9947	PM10 RP1111	PM10 RP17813	PM10 RP47809	TSP RP25089	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	4	13	109	109	198	251	3	9059353
RDL = Reportable Detection Limit									

Maxxam ID		TT9980	TT9981	TT9982		TT9983	TT9984	TT9985		
Sampling Date		2018/03/21	2018/03/27	2018/04/02		2018/04/08	2018/04/26	2018/05/02		
	UNITS	TSP RP55649	TSP RP15008	TSP RP1119	QC Batch	TSP RP10313	TSP RP91293	TSP RP47819	RDL	QC Batch

PM2.5/10										
Particulate Matter	ug/filter	187	484	688	9059353	219	5400	152	3	9059354
RDL = Reportable Detection Limit										

Maxxam Job #: B853810  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		TT9986	TT9987	TT9988	TT9989	TT9990	TT9991		
Sampling Date		2018/03/09	2018/03/15	2018/04/08	2018/04/14	2018/04/20	2018/04/26		
	UNITS	TSP RP15027	TSP RP15022	TSP RP22018	TSP RP852	TSP RP16554	TSP RP27583	RDL	QC Batch
<b>PM2.5/10</b>									
Particulate Matter	ug/filter	9360	6720	3740	335	2860	675	3	9059354
RDL = Reportable Detection Limit									

Maxxam ID		TT9992	TT9993		
Sampling Date		2018/05/02			
	UNITS	TSP RP47810	LAB BLANK	RDL	QC Batch
<b>PM2.5/10</b>					
Particulate Matter	ug/filter	283	<3	3	9059354
RDL = Reportable Detection Limit					

Maxxam Job #: B853810  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Sample TT9951 [PM2.5 RP28677] : Sample RP# differs from RP# listed on COC.

Sample TT9966 [PM10 RP16049] : PM10 RP921 had two rips. SS

Sample TT9968 [PM10 RP10067] : PM10 RP10067 had small rips. SS

Sample TT9982 [TSP RP1119] : TSP RP1119 had visible stain. SS

Sample TT9984 [TSP RP91293] : TSP RP91293 had visible particulate when received. SS

Sample TT9985 [TSP RP47819] : TSP RP47819 had small rips when received. SS

Sample TT9986 [TSP RP15027] : TSP RP15027 had visible particulate when received (layer of white powder. SS

Sample TT9987 [TSP RP15022] : TSP RP15022 had visible particulate when received. SS

Sample TT9990 [TSP RP16554] : TSP RP16554 had visible particulate when received. SS

**Results relate only to the items tested.**

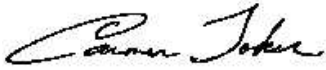


Maxxam Job #: B853810  
Report Date: 2018/07/12

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Your P.O. #: 670839  
 Your Project #: 2018/07/21 - 2018/08/21  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/09/05**  
 Report #: R2614199  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B872690**  
**Received: 2018/08/28, 09:57**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	4	2018/08/30	2018/08/30	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	4	2018/08/30	2018/08/30	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/08/30	2018/08/30	PTC SOP-00154 PTC SOP-00180	

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

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Maxxam Job #: B872690  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UE1592	UE1593	UE1594	UE1595		
Sampling Date		2018/07/21	2018/07/21	2018/07/21	2018/07/21		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Dustfall Determination</b>							
Total Dustfall	mg	10	8	10	11	1	9123219
Total Dustfall (30 day)	mg/cm2/30day	0.121	0.100	0.114	0.135	0.001	9123220
Total Fixed Dustfall	mg	9	7	7	10	1	9123219
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.107	0.085	0.078	0.121	0.001	9123220
<b>Physical Properties</b>							
Exposure	days	31	31	31	31	1	9123222
RDL = Reportable Detection Limit							

Maxxam Job #: B872690  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B872690  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9123219	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								

Maxxam Job #: B872690  
Report Date: 2018/09/05

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: 2018/07/21 - 2018/08/21  
 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: 2018/08/31**  
 Report #: R2612407  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B872687**  
**Received: 2018/08/28, 09:50**

Sample Matrix: Air  
 # Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis	3	2018/08/29	2018/08/31	PTC SOP-00148	Passive NO2 in ATM

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**Encryption Key**

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 Email: LManchak@maxxam.ca  
 Phone# (780)468-3536

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Maxxam Job #: B872687  
Report Date: 2018/08/31

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UE1587	UE1588	UE1589		
Sampling Date		2018/07/21 13:50	2018/07/21 16:00	2018/07/21		
	<b>UNITS</b>	<b>NO2-1 EMR</b>	<b>NO2-2 FGL</b>	<b>NO2: BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
<b>Passive Monitoring</b>						
Calculated NO2	ppb	0.3	0.8	0.1	0.1	9121313
RDL = Reportable Detection Limit						



Maxxam Job #: B872687  
Report Date: 2018/08/31

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B872687  
Report Date: 2018/08/31

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9121313	YL6	Spiked Blank	Calculated NO2			100	%	90 - 110
9121313	YL6	Method Blank	Calculated NO2		<0.1		ppb	

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

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

Maxxam Job #: B872687  
Report Date: 2018/08/31

Agnico Eagle Mines Ltd.  
Client Project #: 2018/07/21 - 2018/08/21  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: 2018/08/21 - 2018/09/22  
 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: 2018/10/01**  
 Report #: R2627931  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B884260**  
**Received: 2018/09/28, 09:39**

Sample Matrix: Air  
 # Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis	3	2018/10/01	2018/10/01	PTC SOP-00148	Passive NO2 in ATM

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

**Encryption Key**

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

=====

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Maxxam Job #: B884260  
Report Date: 2018/10/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UK8164	UK8165	UK8166		
Sampling Date		2018/08/21 14:50	2018/08/21 15:15			
	UNITS	NO2-1	NO2-2	NO2: BLANK	RDL	QC Batch
<b>Passive Monitoring</b>						
Calculated NO2	ppb	0.4	1.0	0.2	0.1	9165862
RDL = Reportable Detection Limit						

Maxxam Job #: B884260  
Report Date: 2018/10/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**GENERAL COMMENTS**

**Results relate only to the items tested.**

Maxxam Job #: B884260  
Report Date: 2018/10/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9165862	YL6	Spiked Blank	Calculated NO2			101	%	90 - 110
9165862	YL6	Method Blank	Calculated NO2		<0.1		ppb	

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

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

Maxxam Job #: B884260  
Report Date: 2018/10/01

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### VALIDATION SIGNATURE PAGE

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\_\_\_\_\_  
Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: 2018/08/21 - 2018/09/22  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/10/09**  
 Report #: R2631639  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B884264**  
**Received: 2018/09/28, 09:42**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	4	2018/10/09	2018/10/09	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	4	2018/10/09	2018/10/09	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2018/10/09	2018/10/09	PTC SOP-00154 PTC SOP-00180	

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

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Maxxam Job #: B884264  
Report Date: 2018/10/09

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UK8176	UK8177	UK8178	UK8179		
Sampling Date		2018/08/21	2018/08/21	2018/08/21	2018/08/21		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Dustfall Determination</b>							
Total Dustfall	mg	21	26	5	8	1	9176028
Total Dustfall (30 day)	mg/cm2/30day	0.242	0.295	0.062	0.096	0.001	9176029
Total Fixed Dustfall	mg	13	13	4	8	1	9176028
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.154	0.152	0.048	0.087	0.001	9176029
<b>Physical Properties</b>							
Exposure	days	32	32	32	32	1	9176031
RDL = Reportable Detection Limit							

Maxxam Job #: B884264  
Report Date: 2018/10/09

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B884264  
Report Date: 2018/10/09

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9176028	XSZ	Method Blank	Total Dustfall		<1		mg	
			Total Fixed Dustfall		<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								

Maxxam Job #: B884264  
Report Date: 2018/10/09

Agnico Eagle Mines Ltd.  
Client Project #: 2018/08/21 - 2018/09/22  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
 Your Project #: 2018/10/24 - 2018/11/30  
 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: 2018/12/17**  
 Report #: R2664849  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B8A7547**  
**Received: 2018/12/10, 10:08**

Sample Matrix: Air  
 # Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis	3	2018/12/10	2018/12/17	PTC SOP-00148	Passive NO2 in ATM

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

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Maxxam Job #: B8A7547  
Report Date: 2018/12/17

Agnico Eagle Mines Ltd.  
Client Project #: 2018/10/24 - 2018/11/30  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		UX7359	UX7360	UX7361		
Sampling Date		2018/10/24 10:45	2018/10/24 10:15			
	UNITS	NO2-1	NO2-2	NO2: BLANK	RDL	QC Batch
<b>Passive Monitoring</b>						
Calculated NO2	ppb	0.8	2.3	0.3	0.1	9259339
RDL = Reportable Detection Limit						

Maxxam Job #: B8A7547  
Report Date: 2018/12/17

Agnico Eagle Mines Ltd.  
Client Project #: 2018/10/24 - 2018/11/30  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**GENERAL COMMENTS**

**Results relate only to the items tested.**



Maxxam Job #: B8A7547  
Report Date: 2018/12/17

Agnico Eagle Mines Ltd.  
Client Project #: 2018/10/24 - 2018/11/30  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9259339	YL6	Spiked Blank	Calculated NO2			100	%	90 - 110
9259339	YL6	Method Blank	Calculated NO2		<0.1		ppb	

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

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

Maxxam Job #: B8A7547  
Report Date: 2018/12/17

Agnico Eagle Mines Ltd.  
Client Project #: 2018/10/24 - 2018/11/30  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

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Your P.O. #: 670839  
Your Project #: PM2.5/10/TSP  
Site#: JUL-OCT 2018  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/11/22**  
Report #: R2654081  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B899441**

**Received: 2018/11/13, 11:06**

Sample Matrix: Filter  
# Samples Received: 52

Analyses	Date		Laboratory Method	Analytical Method
	Quantity	Extracted		
Mass Determination(ug/filter)	51	N/A	2018/11/22 PTC SOP-00151	EPA 2.12 Monitoring
Mass Determination(ug/filter)	1	N/A	N/A PTC SOP-00151	EPA 2.12 Monitoring

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**Encryption Key**

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Levi Manchak, Project Manager SR

Email: LManchak@maxxam.ca

Phone# (780)468-3536

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Maxxam Job #: B899441  
Report Date: 2018/11/22

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

<b>Maxxam ID</b>		UT4787	UT4788	UT4789	UT4790	UT4791		
<b>Sampling Date</b>		2018/07/25	2018/07/31	2018/08/06	2018/08/12	2018/08/18		
	<b>UNITS</b>	<b>PM2.5 RP47807</b>	<b>PM2.5 RP13270</b>	<b>PM2.5 RP16054</b>	<b>PM2.5 RP87504</b>	<b>PM2.5 RP28643</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PM2.5/10</b>								
Particulate Matter	ug/filter	32	6	19	50	20	3	9237748
RDL = Reportable Detection Limit								

<b>Maxxam ID</b>		UT4808	UT4809	UT4792	UT4793	UT4794		
<b>Sampling Date</b>		2018/08/24	2018/08/30	2018/09/05	2018/09/11	2018/09/17		
	<b>UNITS</b>	<b>PM2.5 RP10325</b>	<b>PM2.5 RP22197</b>	<b>PM2.5 RP9946</b>	<b>PM2.5 RP82070</b>	<b>PM2.5 RP10344</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PM2.5/10</b>								
Particulate Matter	ug/filter	84	5	40	22	15	3	9237748
RDL = Reportable Detection Limit								

<b>Maxxam ID</b>		UT4795	UT4796	UT4797	UT4798	UT4799		
<b>Sampling Date</b>		2018/09/23	2018/09/29	2018/10/05	2018/10/11	2018/10/17		
	<b>UNITS</b>	<b>PM2.5 RP17819</b>	<b>PM2.5 RP46685</b>	<b>PM2.5 RP14992</b>	<b>PM2.5 RP56147</b>	<b>PM2.5 RP55652</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PM2.5/10</b>								
Particulate Matter	ug/filter	13	37	46	23	39	3	9237748
RDL = Reportable Detection Limit								

<b>Maxxam ID</b>		UT4800	UT4801	UT4802	UT4803	UT4804		
<b>Sampling Date</b>		2018/10/23	2018/10/29	2018/07/25	2018/07/31	2018/08/06		
	<b>UNITS</b>	<b>PM2.5 RP15546</b>	<b>PM2.5 RP1088</b>	<b>PM10 RP22209</b>	<b>PM10 RP1110</b>	<b>PM10 RP15541</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PM2.5/10</b>								
Particulate Matter	ug/filter	33	29	61	11	54	3	9237748
RDL = Reportable Detection Limit								

<b>Maxxam ID</b>		UT4807	UT4870	UT4871	UT4872	UT4873		
<b>Sampling Date</b>		2018/08/12	2018/08/18	2018/08/24	2018/08/30	2018/09/05		
	<b>UNITS</b>	<b>PM10 RP13795</b>	<b>PM10 RP53332</b>	<b>PM10 RP893</b>	<b>PM10 RP92734</b>	<b>PM10 RP16061</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PM2.5/10</b>								
Particulate Matter	ug/filter	83	35	56	21	39	3	9237748
RDL = Reportable Detection Limit								

<b>Maxxam ID</b>		UT4874	UT4875	UT4876	UT4877	UT4878		
<b>Sampling Date</b>		2018/09/11	2018/09/17	2018/09/23	2018/09/29	2018/10/05		
	<b>UNITS</b>	<b>PM10 RP15802</b>	<b>PM10 RP15007</b>	<b>PM10 RP15004</b>	<b>PM10 RP17875</b>	<b>PM10 RP15504</b>	<b>RDL</b>	<b>QC Batch</b>

<b>PM2.5/10</b>								
Particulate Matter	ug/filter	20	41	37	49	228	3	9237748
RDL = Reportable Detection Limit								

Maxxam Job #: B899441  
Report Date: 2018/11/22

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		UT4879	UT4911	UT4912	UT4913	UT4914	UT4924		
Sampling Date		2018/10/11	2018/10/17	2018/10/23	2018/10/29	2018/07/19	2018/07/25		
	UNITS	PM10 RP15529	PM10 RP16051	PM10 RP16065	PM10 RP16555	TSP RP903	TSP RP47786	RDL	QC Batch
<b>PM2.5/10</b>									
Particulate Matter	ug/filter	32	103	32	17	335	429	3	9237749
RDL = Reportable Detection Limit									

Maxxam ID		UT4925	UT4926	UT4927	UT4928	UT4929	UT4930		
Sampling Date		2018/07/31	2018/08/06	2018/08/12	2018/08/18	2018/08/24	2018/08/30		
	UNITS	TSP RP13064	TSP RP9917	TSP RP16565	TSP RP47797	TSP RP54425	TSP RP1582	RDL	QC Batch
<b>PM2.5/10</b>									
Particulate Matter	ug/filter	116	485	409	40	101	42	3	9237749
RDL = Reportable Detection Limit									

Maxxam ID		UT4931	UT4932	UT4933	UT4934	UT4935	UT4936		
Sampling Date		2018/09/05	2018/09/11	2018/09/17	2018/09/23	2018/09/29	2018/10/05		
	UNITS	TSP RP15806	TSP RP13102	TSP RP22220	TSP RP9924	TSP RP15523	TSP RP72322	RDL	QC Batch
<b>PM2.5/10</b>									
Particulate Matter	ug/filter	57	80	134	520	623	366	3	9237749
RDL = Reportable Detection Limit									

Maxxam ID		UT4937	UT4938	UT4939	UV0803		
Sampling Date		2018/10/11	2018/10/17	2018/10/23	2018/10/23		
	UNITS	TSP RP15553	TSP RP16062	TSP RP1116	BLANK	RDL	QC Batch
<b>PM2.5/10</b>							
Particulate Matter	ug/filter	445	557	419	5	3	9237749
RDL = Reportable Detection Limit							

Maxxam Job #: B899441  
Report Date: 2018/11/22

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B899441  
Report Date: 2018/11/22

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

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Your P.O. #: 670839  
Your Project #: PM2.5/10/TSP  
Site#: JUN-OCT 2018  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2018/11/20**  
Report #: R2652804  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B899427**  
**Received: 2018/11/13, 10:41**

Sample Matrix: Filter  
# Samples Received: 23

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Mass Determination(ug/filter)	23	N/A	2018/11/20	PTC SOP-00151	EPA 2.12 Monitoring

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Phone# (780)468-3536

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Maxxam Job #: B899427  
Report Date: 2018/11/20

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		UT4601	UT4602	UT4603	UT4604	UT4605		
Sampling Date		2018/06/13	2018/06/19	2018/06/25	2018/07/01	2018/07/07		
	UNITS	PM2.5 RP47814	PM2.5 RP27820	PM2.5 RP22219	PM2.5 RP2884	PM2.5 RP90833	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	49	28	25	68	35	3	9233947
RDL = Reportable Detection Limit								

Maxxam ID		UT4661	UT4662	UT4606	UT4607	UT4608		
Sampling Date		2018/07/13	2018/07/19	2018/06/13	2018/06/19	2018/06/25		
	UNITS	PM2.5 RP13797	PM2.5 RP15145	PM10 RP98002	PM10 RP10062	PM10 RP872	RDL	QC Batch

PM2.5/10								
Particulate Matter	ug/filter	69	51	145	33	68	3	9233947
RDL = Reportable Detection Limit								

Maxxam ID		UT4609	UT4610	UT4611	UT4612	UT4613	UT4614		
Sampling Date		2018/07/01	2018/07/07	2018/07/13	2018/07/19	2018/06/07	2018/06/13		
	UNITS	PM10 RP10082	PM10 RP47782	PM10 RP16059	PM10 RP27588	TSP RP47813	TSP RP10084	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	236	52	673	323	221	73	3	9233947
RDL = Reportable Detection Limit									

Maxxam ID		UT4615	UT4616	UT4617	UT4618	UT4660	UT4619		
Sampling Date		2018/06/19	2018/06/25	2018/07/01	2018/07/07	2018/07/13			
	UNITS	TSP RP16047	TSP RP27773	TSP RP16041	TSP RP47776	TSP RP28689	LAB BLANK	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	126	792	188	1360	790	5	3	9233947
RDL = Reportable Detection Limit									

Maxxam ID		UT4620			
Sampling Date					
	UNITS	TRAVEL BLANK-47803		RDL	QC Batch
PM2.5/10					
Particulate Matter	ug/filter	8		3	9233947
RDL = Reportable Detection Limit					

Maxxam Job #: B899427  
Report Date: 2018/11/20

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B899427  
Report Date: 2018/11/20

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### VALIDATION SIGNATURE PAGE

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Linda Lin, Supervisor, Centre for Passive Sampling Technology

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Your P.O. #: 670839  
Your Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2019/01/15**  
Report #: R2674256  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B901500**  
**Received: 2019/01/08, 11:35**

Sample Matrix: Air  
# Samples Received: 3

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
NO2 Passive Analysis	3	2019/01/08	2019/01/15	PTC SOP-00148	Passive NO2 in ATM

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

**Encryption Key**

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

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Maxxam Job #: B901500  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		VB1630	VB1631	VB1632		
Sampling Date		2018/11/30	2018/11/30			
	UNITS	NO2-1	NO2-2	NO2: BLANK	RDL	QC Batch
<b>Passive Monitoring</b>						
Calculated NO2	ppb	0.8	3.4	0.9	0.1	9285291
RDL = Reportable Detection Limit						

Maxxam Job #: B901500  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B901500  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

### QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9285291	YL6	Spiked Blank	Calculated NO2			99	%	90 - 110
9285291	YL6	Method Blank	Calculated NO2		<0.1		ppb	

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

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

Maxxam Job #: B901500  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839  
Sampler Initials: RN

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Your P.O. #: 670839  
 Your Project #: PM2.5/10/TSP  
 Site#: OCT 2018 - JAN 2019  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2019/02/11**  
 Report #: R2684421  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B908800**  
**Received: 2019/02/05, 13:40**

Sample Matrix: Filter  
 # Samples Received: 16

<b>Analyses</b>	<b>Quantity</b>	<b>Date Extracted</b>	<b>Date Analyzed</b>	<b>Laboratory Method</b>	<b>Analytical Method</b>
Mass Determination(ug/filter)	16	N/A	2019/02/11	PTC SOP-00151	EPA 2.12 Monitoring

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

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Maxxam Job #: B908800  
Report Date: 2019/02/11

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF FILTER**

Maxxam ID		VE5919	VE5920	VE5921	VE5922	VE5923	VE5924		
Sampling Date		2018/10/29	2018/11/04	2018/11/10	2018/11/16	2018/11/22	2018/11/28		
	UNITS	TSP RP16474	TSP RP889	TSP RP18674	TSP RP926	TSP RP15819	TSP RP15551	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	1100	222	27	80	556	56	3	9318217
RDL = Reportable Detection Limit									

Maxxam ID		VE5925	VE5926	VE5927	VE5928	VE5929	VE5930		
Sampling Date		2018/12/04	2018/12/10	2018/12/16	2018/12/22	2018/12/28	2019/01/03		
	UNITS	TSP RP47822	TSP RP47820	TSP RP917	TSP RP33985	TSP RP14997	TSP RP1153	RDL	QC Batch

PM2.5/10									
Particulate Matter	ug/filter	112	503	108	240	71	57	3	9318217
RDL = Reportable Detection Limit									

Maxxam ID		VE5931	VE5932	VE5933	VE5936		
Sampling Date		2019/01/09	2019/01/15	2019/01/21			
	UNITS	TSP RP93456	TSP RP93460	TSP RP33977	BLANK	RDL	QC Batch

PM2.5/10							
Particulate Matter	ug/filter	45	60	65	11	3	9318217
RDL = Reportable Detection Limit							

Maxxam Job #: B908800  
Report Date: 2019/02/11

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

Results relate only to the items tested.

Maxxam Job #: B908800  
Report Date: 2019/02/11

Agnico Eagle Mines Ltd.  
Client Project #: PM2.5/10/TSP  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

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Your P.O. #: 670839  
 Your Project #: 2018/11/30 - 2018/12/29  
 Site Location: BAKER LAKE, NU

**Attention: MEADOWBANK ENVIRONMENT**

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

**Report Date: 2019/01/15**  
 Report #: R2674008  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**MAXXAM JOB #: B901497**  
**Received: 2019/01/08, 11:32**

Sample Matrix: Air  
 # Samples Received: 4

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Determination of Dustfall	4	2019/01/11	2019/01/11	PTC SOP-00180	AMD 32020
Total & Fixed Dustfall	4	2019/01/11	2019/01/11	PTC SOP-00180	AMD 32020
Exposure (Number of days)	4	2019/01/11	2019/01/11	PTC SOP-00154 PTC SOP-00180	

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**Encryption Key**

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

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Maxxam Job #: B901497  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**RESULTS OF CHEMICAL ANALYSES OF AIR**

Maxxam ID		VB1624	VB1625	VB1626	VB1627		
Sampling Date		2018/11/30	2018/11/30	2018/11/30	2018/11/30		
	UNITS	1	2	3	4	RDL	QC Batch
<b>Dustfall Determination</b>							
Total Dustfall	mg	31	13	7	7	1	9289497
Total Dustfall (30 day)	mg/cm2/30day	0.388	0.168	0.089	0.082	0.001	9289498
Total Fixed Dustfall	mg	31	13	7	6	1	9289497
Total Fixed Dustfall (30 day)	mg/cm2/30day	0.388	0.168	0.089	0.074	0.001	9289498
<b>Physical Properties</b>							
Exposure	days	29	29	29	29	1	9289500
RDL = Reportable Detection Limit							

Maxxam Job #: B901497  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

### GENERAL COMMENTS

**Results relate only to the items tested.**

Maxxam Job #: B901497  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

**QUALITY ASSURANCE REPORT**

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	9289497	XSZ	Method Blank	Total Dustfall		<1		mg	
				Total Fixed Dustfall		<1		mg	
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.									



Maxxam Job #: B901497  
Report Date: 2019/01/15

Agnico Eagle Mines Ltd.  
Client Project #: 2018/11/30 - 2018/12/29  
Site Location: BAKER LAKE, NU  
Your P.O. #: 670839

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## **Appendix C**

### **Results of Dustfall Monitoring along the AWAR and WTHR**

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2018 Air Quality and Dustfall Monitoring Report  
Agnico Eagle - Meadowbank Mine

**Table C- 1. 30-d total and fixed dustfall rates for samples collected in 2018 along the Meadowbank AWAR (km 11, 18, 25, 50, 69, 78, 84). NA = result unavailable (damaged sampler).**

Km	Side of Road	Distance (m)	July 1 – August 5		August 5 – September 15	
			Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)	Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)
11	E	25	0.239	0.227	0.366	0.355
11	E	100	0.082	<0.001	0.22	0.188
11	E	300	0.151	0.082	0.108	0.059
11	W	25	0.466	0.346	0.29	0.129
11	W	100	0.208	0.157	0.398	0.145
11	W	300	0.113	0.069	0.075	0.048
11	W	1000	0.082	0.050	0.07	0.038
18	E	25	2.097	2.040	3.347	2.745
18	E	100	0.504	0.466	0.527	0.495
18	E	300	0.416	0.359	0.36	0.317
18	W	25	1.417	1.234	0.796	0.758
18	W	100	0.542	0.510	0.323	0.306
18	W	300	0.359	0.239	NA	NA
25	E	25	0.374	0.347	0.425	0.379
25	E	100	0.140	0.107	0.154	0.123
25	E	300	0.087	0.073	0.113	0.087
25	W	25	0.962	0.862	1.158	1.87
25	W	100	0.247	0.234	0.097	0.077
25	W	300	0.167	0.140	0.077	0.056
25	W	1000	0.067	0.047	0.092	0.041
50	E	25	0.988	0.808	0.245	0.11
50	E	100	0.454	0.387	0.233	0.143
50	E	300	0.194	0.180	0.065	0.04
50	E	1000	0.107	0.087	<.001	<.001
50	W	25	0.347	0.327	0.2	0.15
50	W	100	0.127	0.127	0.326	0.09
50	W	300	0.214	0.200	0.04	<.0001
50	W	1000	0.107	0.067	0.02	0.001
69	E	25	1.356	1.262	0.511	0.446
69	E	100	0.387	0.367	0.291	0.16
69	E	300	0.260	0.234	0.035	0.025
69	E	1000	1.536	0.768	0.02	0.005
69	W	25	0.354	0.307	0.235	0.175
69	W	100	0.207	0.167	0.115	0.08
69	W	300	0.134	0.100	0.105	0.064
69	W	1000	0.087	0.053	0.082	0.047

2018 Air Quality and Dustfall Monitoring Report  
Agnico Eagle - Meadowbank Mine

Km	Side of Road	Distance (m)	July 1 – August 5		August 5 – September 15	
			Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)	Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)
78	E	25	2.291	2.251	1.051	0.894
78	E	100	0.648	0.601	0.205	0.11
78	E	300	0.427	0.227	0.115	0.035
78	E	1000	0.447	0.087	0.033	<.001
78	W	25	0.554	0.528	0.639	0.571
78	W	100	0.260	0.247	0.184	0.101
78	W	300	0.374	0.194	0.06	0.02
78	W	1000	0.107	0.073	<.001	<.001
84	E	25	0.975	0.915	0.045	0.005
84	E	100	0.207	0.187	0.24	0.007
84	E	300	0.067	0.053	0.109	<.001
84	E	1000	0.040	0.007	0.035	0.009
84	W	25	0.407	0.387	0.393	0.311
84	W	100	0.160	0.134	0.144	0.048
84	W	300	0.107	0.073	0.046	<.0001
84	W	1000	0.060	0.047	0.025	<.001

Table A- 2. 30-d total and fixed dustfall rates for samples collected in 2018 along the Whale Tail Haul Road (km 19, 37, 54). NA = result unavailable (damaged sampler).

Km	Side of Road	Distance (m)	July 15 – August 16		August 16 – September 28	
			Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)	Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)
19	E	25	0.581	0.528	0.731	0.588
19	E	100	0.287	0.234	0.338	0.24
19	E	300	0.134	0.067	0.214	0.065
19	E	1000	0.094	0.067	0.021	0.01
19	W	25	0.935	0.848	0.529	0.401
19	W	100	NA	NA	0.277	0.254
19	W	300	0.114	0.060	0.034	0.001
19	W	1000	0.114	0.087	0.092	0.072
37	E	25	0.988	0.935	3.498	3.415
37	E	100	0.474	0.260	0.136	0.136
37	E	300	0.107	0.080	0.077	0.061
37	E	1000	0.067	0.047	0.062	0.062
37	W	25	0.281	0.281	0.200	0.200
37	W	100	0.167	0.160	0.063	0.063
37	W	300	0.347	0.114	0.067	0.019
37	W	1000	0.073	0.040	0.2	0.048

2018 Air Quality and Dustfall Monitoring Report  
Agnico Eagle - Meadowbank Mine

Km	Side of Road	Distance (m)	July 15 – August 16		August 16 – September 28	
			Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)	Total Dustfall (mg/cm <sup>2</sup> /30d)	Fixed Dustfall (mg/cm <sup>2</sup> /30d)
54	E	25	0.341	0.281	0.233	0.233
54	E	100	0.154	0.127	0.09	0.082
54	E	300	0.087	0.080	0.057	0.025
54	E	1000	0.073	0.033	0.01	0.001
54	W	25	0.548	0.508	0.32	0.295
54	W	100	0.260	0.214	0.238	0.161
54	W	300	0.094	0.073	0.128	0.072
54	W	1000	0.073	0.040	0.055	0.021