TECHNICAL MEMORANDUM

DATE January 19, 2015 **PROJECT No.** 1407256

TO Rick Bargery
Dominion Diamond Ekati Corporation

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JAY PROJECT AIR QUALITY ASSESSMENT UPDATE

1.0 INTRODUCTION

Since the submission of the Developer's Assessment Report (DAR) for the Jay Project (Project), some necessary revisions to the emission information used in the air quality assessment (Section 7) of the DAR have been identified. The series of individual revisions do touch a number of areas of the air quality assessment, but as this memorandum demonstrates, collectively have little effect on the assessment as a whole. This memo provides a summary of the revisions and the updated air quality results and conclusions based on the refinements.

2.0 REVISIONS

The following revisions to the air quality assessment were made:

1) A unit conversion error in the volatile organic compounds (VOC) for the underground mine heaters at the Diavik Diamond Mine (Diavik Mine) was corrected. The revised emissions are approximately two orders of magnitude lower than the Diavik Mine underground mine heating emissions presented in the DAR. This revision does not affect the other emissions from the Diavik underground mine heaters.

2) A unit conversion error in polycyclic aromatic hydrocarbons (PAH) emissions estimates from boilers and the Diavik Mine underground mine heaters was corrected. The revised emissions are approximately three orders of magnitude lower than the Diavik Mine boiler and heater emissions presented in the DAR. This revision does not affect the other emissions from the Diavik underground mine heaters.

3) Polycyclic aromatic hydrocarbon (PAH), dioxin, and furan emissions estimates for the incinerators at the Diavik Mine were updated based on the estimated waste incinerated at the Diavik Mine. The revised values resulted in PAH, dioxin, and furans emissions in the Diavik Mine waste incinerators being two times those presented in the DAR. This revision does not affect the other emissions from the Diavik waste incinerators.

4) Variable emission rates for metal emissions at both the Diavik and Ekati mines were updated, as they had been based on the incorrect particulate matter (PM) size fraction. The majority of metal emissions are associated with total suspended particulate (TSP) emissions from fugitive sources (e.g., road dust, material transfer, and mining activities). In addition, the metal emission speciation profile for the ore was also applied

incorrectly to some of the metal emission sources. The revised values are within the same order of magnitude as the original values.

5) Ekati Mine road dust emissions estimates in the Application Case were updated due to an underestimation of trips per day and gross operating hours for the mine trucks on the Misery Road and an overestimation of trips per day and gross operating hours for the mine trucks in the Project area. Revised values result in Application Case road dust emissions along the Misery Road being approximately 24 times higher and a decrease in Application Case road dust emission in the Project area.

6) $PM_{2.5}$ and PM_{10} grading emissions for all cases in the DAR referenced the wrong PM size fraction. The revised predictions resulted in lower $PM_{2.5}$ and PM_{10} grading emissions.

7) Background concentrations based on monitoring data were added to the revised predicted particulate concentrations.

8) Revisions were made to Construction Case loading and unloading $PM_{2.5}$ and PM_{10} emissions. Construction Case loading and unloading $PM_{2.5}$ and PM_{10} emissions were incorrectly based on bulldozing parameters. Revised values result in lower Construction Case $PM_{2.5}$ and PM_{10} emissions.

9) Some air emission tables presented in Section 7 of the DAR included typographic errors. These tables have been updated to present the correct values.

10) The resolution of the grid for calculating areas of exceedance for particulate matter was increased to better capture areas of exceedance near the edge of the Project footprint, resulting in more accurate calculations.

3.0 EMISSIONS

The following tables are excerpted from the DAR, Section 7.4, and have been updated to reflect the revisions outlined in Section 2.0 of this memo. Explanations for the changes in each table and to which revision they refer are also included below. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

Appendix B provides an update to the emission tables presented in the DAR, Section 7, Appendix 7B resulting from the revisions outlined in Section 2.0 of this memo.

The revised Base Case Ekati Mine Criteria Air Contaminants (CAC) emissions are presented in Table 3-1. The changes in drilling and blasting as well as road dust emissions are due to a typographical error made when compiling data for the DAR report tables. Correct emissions were used in the modelling for the DAR. Changes in grading are due to a small change in the estimation of the emissions due to Revision 6 discussed in Section 2.0.

Table 3-1 (DAR, Section 7, Table 7.4-2): Base Case Ekati Mine Criteria Air Contaminants Emissions

Source	Emission Rate (t/y)					
	SO_2	NO_X	CO	$PM_{2.5}$	PM_{10}	TSP
Power Generators	1.442	2,972.7	789.6	51.6	53.2	64.7
Boilers/Heaters	0.264	24.8	6.2	1.9	2.9	4.1
Waste Incinerators	0.529	0.5	1.6	1.1	1.1	1.1
Mine Fleet Exhaust	0.661	586.7	345.5	44.5	45.4	42.9
Drilling and Blasting	0.002	0.0	0.1	1.4 (0.1)	11.9 (1.0)	17.7 (1.5)
Loading and Unloading	—	—	—	2.8	18.0	33.6
Bulldozing	—	—	—	6.2	75.4	239.9

Table 3-1 (DAR, Section 7, Table 7.4-2): Base Case Ekati Mine Criteria Air Contaminants Emissions

Source	Emission Rate (t/y)					
	SO_2	NO_x	CO	$PM_{2.5}$	PM_{10}	TSP
Grading	—	—	—	0.6 (5.9)	5.9 (9.9)	20.2
Crushing, Screening, Conveying	—	—	—	5.2	29.2	65.3
Road Dust	—	—	—	94.3 (94.2)	922.3 (923.4)	2,894.6 (2,888.8)
Wind Erosion	—	—	—	0.0	0.1	0.2
Exposed Lakebed	—	—	—	—	—	—
Winter Roads	0.002	0.9	0.4	0.0	0.0	0.0
Total	**2.900**	**3,585.6**	**1,143.4**	**209.7 (213.5)**	**1,165.6 (1,159.6)**	**3,384.4 (3,362.3)**

Notes: The emission rates presented in the above table have been rounded. Therefore, the totals may not appear to be sum of individual values. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

— = No data; t/y = tonnes per year; SO_2 = sulphur dioxide; NO_x = nitrogen oxides; CO = carbon monoxide; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; PM_{10} = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulate.

The revised Base Case Ekati Mine non-CAC emissions are presented in Table 3-2. The change in incinerator dioxin/furans emissions is due to Revision 3 discussed in Section 2.0. All changes in metal emissions are due to Revision 4.

Table 3-2 (DAR, Section 7, Table 7.4-3): Base Case Ekati Mine Non-Criteria Air Contaminants Emissions

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Power Generators	76.1	0.197	0.2	—
Boilers/Heaters	0.2	0.001	0.0	—
Waste Incinerators	0.5	0.000	0.0	1.06×10^{-7} (2.31×10^{-8})
Mine Fleet Exhaust	58.2	0.116	0.7 (0.2)	—
Drilling and Blasting	—	—	1.4 (0.1)	—
Loading and Unloading	—	—	2.7 (2.5)	—
Bulldozing	—	—	18.5 (19.6)	—
Grading	—	—	1.7	—
Crushing, Screening, Conveying	—	—	4.3 (2.3)	—
Road Dust	—	—	236.6 (236.1)	—
Wind Erosion	—	—	0.0	—
Exposed Lakebed	—	—	—	—
Winter Roads	0.1	—	0.0	—
Total Emissions	**135.1**	**0.314**	**265.9 (262.7)**	**1.06×10^{-7} (2.31×10^{-8})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

— = no data; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

The revised Application Case Ekati Mine and Project CAC emissions are presented in Table 3-3. The changes in drilling and blasting, bulldozing, and wind erosion emissions are due to a typographical error made when compiling data for the DAR report tables. Correct emissions were used in the modelling for the DAR. Changes in grading and road dust emissions are due to Revision 6 discussed in Section 2.0.

Table 3-3 (DAR, Section 7, Table 7.4-4): Application Case Ekati Mine and Jay Project Criteria Air Contaminants Emissions

Source	Emission Rate (t/y)					
	SO_2	NO_X	CO	$PM_{2.5}$	PM_{10}	TSP
Power Generators	1.442	2,972.7	789.6	51.6	53.2	64.7
Boilers/Heaters	0.081	7.6	1.9	0.6	0.9	1.3
Waste Incinerators	0.529	0.5	1.6	1.1	1.1	1.1
Mine Fleet Exhaust	2.189	1,725.5	1,029.3	131.3	132.8	118.4
Drilling and Blasting	0.003	0.0	0.1	2.0 (0.2)	19.3 (1.7)	28.0 (2.4)
Loading and Unloading	—	—	—	3.8	24.8	46.3
Bulldozing	—	—	—	8.8 (9.3)	108.0 (114.1)	347.7 (363.8)
Grading	—	—	—	0.6 (5.9)	5.9 (9.9)	20.2
Crushing, Screening, Conveying	—	—	—	5.2	29.2	65.3
Road Dust	—	—	—	141.4 (117.0)	1,386.1 (1,142.0)	4,351.4 (3,475.3)
Wind Erosion	—	—	—	0.0	0.1 (0.2)	0.2 (0.4)
Exposed Lakebed	—	—	—	0.0	0.1	0.2
Winter Roads	0.002	0.9	0.4	0.0	0.0	0.0
Total	**4.246**	**4,707.2**	**1,823.0**	**346.6 (326.0)**	**1,760.2 (1,510.0)**	**5,053.4 (4,159.4)**

Note: The emission rates presented in the above table have been rounded to three decimal places. Therefore, the totals may not appear to be sum of individual values. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

— = no data; t/y = tonnes per year; SO_2 = sulphur dioxide; NO_x = nitrogen oxides; CO = carbon monoxide; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; PM_{10} = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulate.

The revised Application Case Ekati Mine and Jay Project non-CAC emissions are presented in Table 3-4. In Table 3-4, the change in incinerator dioxin/furans emissions is due to Revision 3 discussed in Section 2.0. All changes in metal emissions are due to Revision 4.

Table 3-4 (DAR, Section 7, Table 7.4-5): Application Case Ekati Mine and Project Non-Criteria Air Contaminants Emissions

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Power Generators	76.1	0.197	0.2	—
Boilers/Heaters	0.1	0.000	0.0	—
Waste Incinerators	0.5	0.000	0.0	1.06×10^{-7} (2.31×10^{-8})
Mine Fleet Exhaust	170.5	0.383	3.3 (0.4)	—
Drilling and Blasting	—	—	2.3 (0.2)	—
Loading and Unloading	—	—	3.6 (3.4)	—
Bulldozing	—	—	27.0 (29.7)	—
Grading	—	—	1.7	—
Crushing, Screening, Conveying	—	—	4.3 (2.3)	—
Road Dust	—	—	356.3 (284.0)	—
Wind Erosion	—	—	0.0	—

Table 3-4 (DAR, Section 7, Table 7.4-5): Application Case Ekati Mine and Project Non-Criteria Air Contaminants Emissions

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Exposed Lakebed	—	—	0.0	—
Winter Roads	0.1	—	0.0	—
Total Plant Emissions	**247.2**	**0.581**	**398.7 (321.9)**	**1.06×10^{-7} (2.31×10^{-8})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

— = no data; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

The revised Construction Case Ekati Mine and Project CAC emissions are presented in Table 3-5. The changes in mine fleet exhaust as well as drilling and blasting are due to a typographical error made when compiling data for the DAR report tables. Correct emissions were used in the modelling. Changes in loading and unloading and grading are due to Revision 6 discussed in Section 2.0.

Table 3-5 (DAR, Section 7, Table 7.4-6): Construction Case Ekati Mine and Jay Project Criteria Air Contaminants Emissions

Source	Emission Rate (t/y)					
	SO_2	NO_x	CO	$PM_{2.5}$	PM_{10}	TSP
Power Generators	1.442	2,972.7	789.6	51.7	53.2	64.7
Boilers/Heaters	0.264	24.8	6.20	1.9	2.9	4.1
Waste Incinerators	0.529	0.5	1.642	1.1	1.1	1.1
Mine Fleet Exhaust	1.344 (0.775)	949.6 (647.2)	489.3 (369.43)	65.9 (48.1)	67.5 (49.1)	64.9 (46.6)
Drilling and Blasting	0.002	0.0	0.1	1.4 (0.1)	11.9 (1.0)	17.7 (1.5)
Loading and Unloading	—	—	—	3.9 (17.4)	25.3 (197.9)	49.1
Bulldozing	—	—	—	20.1	250.8	872.9
Grading	—	—	—	0.6 (5.9)	5.9 (9.9)	20.2
Crushing, Screening, Conveying	—	—	—	8.0	32.0	71.5
Road Dust	—	—	—	193.2	1,911.7 (1,912.8)	5,317.2 (5,311.4)
Wind Erosion	—	—	—	0.0	0.1	0.2
Winter Roads	0.002	0.9	0.4	0.0	0.0	0.0
Total	**3.583 (3.014)**	**3,948.5 (3,646.1)**	**1,287.3 (1,167.4)**	**347.8 (347.5)**	**2,362.4 (2,510.7)**	**6,483.7 (6,443.4)**

Note: The emission rates presented in the above table have been rounded to three decimal places. Therefore, the totals may not appear to be sum of individual values. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

— = no data; t/y = tonnes per year; SO_2 = sulphur dioxide; NO_x = nitrogen oxides; CO = carbon monoxide; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; PM_{10} = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulate.

The Construction Case Ekati Mine and Project non-CAC emissions are presented in Table 3-6. The changes in mine fleet exhaust are due to a typographical error when compiling data for the DAR report tables. Correct values were used in the modelling. The change in incinerator dioxin/furans emissions is due to Revision 3 discussed in Section 2.0. All changes in metal emissions are due to Revision 4.

Table 3-6 (DAR, Section 7, Table 7.4-7): Construction Case Ekati Mine and Jay Project Non-Criteria Air Contaminants Emissions

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Power Generators	76.1	0.197	0.2	—
Boilers/Heaters	0.2	0.001	0.0	—
Waste Incinerators	0.5	0.000	0.0	1.06×10^{-7} (2.31×10^{-8})
Mine Fleet Exhaust	81.2 (62.0)	0.251 (0.138)	0.7 (0.2)	—
Drilling and Blasting	—	—	1.4 (0.1)	—
Loading and Unloading	—	—	3.9 (3.6)	—
Bulldozing	—	—	70.2 (71.3)	—
Grading	—	—	1.7	—
Crushing, Screening, Conveying	—	—	4.8 (2.9)	—
Road Dust	—	—	434.5 (243.8)	—
Wind Erosion	—	—	0.0	—
Winter Roads	0.1	—	0.0	—
Total Plant Emissions	**158.1 (138.9)**	**0.450 (0.337)**	**517.4 (323.9)**	**1.06×10^{-7} (2.31×10^{-8})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

— = no data; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

A revised summary of the Project and regional CAC emissions is presented in Table 3-7. The changes in the Base Case, Application Case, and Construction Case Ekati Mine emissions are due to a combination of typographical errors and other revisions, as presented in Tables 3-1, 3-3, and 3-5, respectively.

Table 3-7 (DAR, Section 7, Table 7.4-8): Summary of Project and Regional Annual Criteria Air Contaminants Emission Rates

Source	Emission Rate (t/y)					
	SO_2	NO_X	CO	$PM_{2.5}$	PM_{10}	TSP
Base Case						
Ekati Mine	2.900	3,585.6	1,143.4	209.7 (213.8)	1,165.6 (1,159.7)	3,384.4 (3,362.5)
Diavik Mine	8.596	6,683.0	2,042.4	346.6	447.9	729.8
Total	**11.496**	**10,268.6**	**3,185.8**	**556.3 (560.4)**	**1,613.5 (1,607.6)**	**4,114.2 (4092.3)**
Application Case						
Change Due to Project	1.346	1,121.6	679.6	136.9 (112.4)	594.6 (350.3)	1,669.0 (796.8)
Ekati Mine	2.900	3,585.6	1,143.4	209.7 (213.8)	1,165.6 (1,159.7)	3,384.4 (3,362.5)
Diavik Mine	8.596	6,683.0	2,042.4	346.6	447.9	729.8
Total	**12.842**	**11,390.2**	**3,865.4**	**693.2 (672.8)**	**2,208.1 (1,957.9)**	**5,783.2 (4,889.1)**

Table 3-7 (DAR, Section 7, Table 7.4-8): Summary of Project and Regional Annual Criteria Air Contaminants Emission Rates

Source	Emission Rate (t/y)					
	SO_2	NO_X	CO	$PM_{2.5}$	PM_{10}	TSP
Construction Case						
Ekati Mine and Jay Project – Construction	3.584 (3.014)	3,948.5 (3,646.1)	1,287.3 (1,167.4)	347.8 (347.5)	2,362.4 (2,510.7)	6,483.7 (6,443.4)
Diavik Mine	8.596	6,683.0	2,042.4	346.6	447.9	729.8
Total	**12.180 (12.842)**	**10,631.5 (11,390.2)**	**3,329.7 (3,865.4)**	**694.4 (694.1)**	**2,810.3 (2,958.6)**	**7,213.5 (7,173.2)**

Note: The emission rates presented in the above table have been rounded. Therefore, the totals may not appear to be sum of individual values. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

t/y = tonnes per year; SO_2 = sulphur dioxide; NO_x = nitrogen oxides; CO = carbon monoxide; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; PM_{10} = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulate.

A summary of the Project and regional non-CAC emissions is presented in Table 3-8. The change in dioxin/furans emissions is due to Revision 3 discussed in Section 2.0. All changes in metal emissions are due to Revision 4. Changes in Diavik Mine VOC and PAH emissions are due to Revisions 1 and 2, respectively. Changes in Construction Case Ekati Mine emissions are due to typographical errors. Correct emissions were used in the modelling.

Table 3-8 (DAR, Section 7, Table 7.4-9): Summary of Project and Regional Annual Non-Criteria Air Contaminants Emission Rates

Source	Emission Rate (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Base Case				
Ekati Mine	135.1	0.314	265.9 (262.8)	1.06×10^{-7} (2.31×10^{-8})
Diavik Mine	229.7 (434.7)	0.897 (19.417)	311.7 (223.9)	4.62×10^{-8} (2.31×10^{-8})
Total	**364.8 (569.8)**	**1.211 (19.731)**	**577.6 (486.7)**	**1.52×10^{-7} (4.62×10^{-8})**
Application Case				
Change Due to Project	112.1	0.266	132.7 (59.2)	0
Ekati Mine	135.1	0.314	265.9 (262.8)	1.06×10^{-7} (2.31×10^{-8})
Diavik Mine	229.7 (434.7)	0.897 (19.417)	311.7 (223.9)	4.62×10^{-8} (2.31×10^{-8})
Total	**476.9 (681.9)**	**1.478 (19.997)**	**710.4 (545.9)**	**1.52×10^{-7} (4.62×10^{-8})**
Construction Case				
Ekati Mine and Jay Project – Construction	158.1 (138.9)	0.450 (0.337)	517.4 (323.9)	1.06×10^{-7} (2.31×10^{-8})
Diavik Mine	229.7 (434.7)	0.897 (19.417)	311.7 (223.9)	4.62×10^{-8} (2.31×10^{-8})
Total	**387.8 (573.6)**	**1.347 (19.754)**	**829.1 (547.8)**	**1.52×10^{-7} (4.62×10^{-8})**

Note: The emission rates presented in the above table have been rounded. Therefore, the totals may not appear to be sum of individual values. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

4.0 MODEL PREDICTIONS

There were no changes in sulphur dioxide (SO_2), nitrogen dioxide (NO_2), and carbon monoxide (CO) modelling predictions, as the emissions of those compounds did not require revision. There were changes in the modelling results for $PM_{2.5}$, PM_{10}, TSP, VOC, PAH, metals, and dioxins/furans. Predictions from the remodelling using the revised emissions presented in Section 3.0 are shown below.

4.1 Background Concentrations

Revision 7 in Section 2.0 indicated that background concentrations were added to the model predictions in the update. No background concentration values were added to the model predicted PM_{10} and TSP concentrations in the DAR. Updated background concentrations for PM_{10} and TSP are summarized in Table 4-1. The background $PM_{2.5}$ concentration is the same as in the DAR.

The most appropriate natural background $PM_{2.5}$ and PM_{10} concentrations in the region are measurements from NWT Tundra Ecological Research Station located at Daring Lake. $PM_{2.5}$ measurements were collected between 2003 and 2008, while PM_{10} measurements were collected in 2002. However, the PM_{10} measurements collected at this station in 2002 were not used, as the measured PM_{10} concentration values in 2002 are lower than the measured $PM_{2.5}$ concentration values between 2003 and 2008. Background PM_{10} concentrations should be higher than background $PM_{2.5}$ concentrations because $PM_{2.5}$ is a subset of PM_{10}. A rural $PM_{10}/PM_{2.5}$ ratio of 1.5 (Brook et al. 1997) was applied to the $PM_{2.5}$ median concentration measured between 2003 and 2007. The background PM_{10} concentration calculated using this method is 2.7 µg/m^3.

The TSP concentrations that most accurately represent natural background TSP concentrations at the Project were collected in 2002 as a part of the De Beers Canada Inc. Snap Lake Mine baseline monitoring program. The Snap Lake Mine TSP background concentration is 3.1 µg/m³.

Table 4-1 (DAR, Section 7, Appendix 7C, Table 7C5.6-1): Background Concentrations Used in the Air Quality Assessment

Averaging Period	Background Concentrations (µg/m^3)					
	SO_2	NO_x	CO	$PM_{2.5}$	PM_{10}	TSP
1-hour	0.0	0.0	0.0	—	—	—
8-hour	—	—	0.0	—	—	—
24-hour	0.0	0.0	—	1.9	2.7 (0.0)	3.1 (0.0)
Annual	0.0	0.0	—	—	0.0	0.0

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

— = no data; µg/m^3 = micrograms per cubic metre; SO_2 = sulphur dioxide; NO_x = nitrogen oxides; CO = carbon monoxide; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; PM_{10} = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulate.

4.2 $PM_{2.5}$ Predictions

A comparison of the Base Case and Application Case predicted maximum 24-hour and annual $PM_{2.5}$ concentrations is shown in Table 4-2, while the comparison between the area and frequency of exceedences of the NWT air quality standards is shown in Table 4-3. The predicted 24-hour and annual $PM_{2.5}$ concentrations and the predicted number of days exceeding the 24-hour $PM_{2.5}$ air quality standards are shown in Maps 4-1 to 4-6.

As shown in Table 4-2, Base Case maximum predictions for $PM_{2.5}$ did not change. Application Case predictions decreased due to decreased loading and unloading emissions. As a result, the difference between the maximum predictions between the Base Case and Application Case was also decreased.

Maps 4-1 to 4-6 show the revised $PM_{2.5}$ concentration contours, which remained either identical or very similar to those presented in the DAR in Section 7.4. There is a minor expansion of the Application Case $PM_{2.5}$ concentration contours along the Misery Road in Maps 4-3 and 4-4 due to Revision 5 discussed in Section 2.0. Road dust emission is not a major source of overall $PM_{2.5}$ emissions; therefore, the increased road dust emissions along Misery Road in the Application Case did not substantially increase the $PM_{2.5}$ predictions.

Table 4-2 (DAR, Section 7, Table 7.4-16): Comparison of Regional Base Case and Application Case for $PM_{2.5}$ Concentrations

Study Area	Averaging Period	Criteria (NWT Ambient Air Quality Standards)	Maximum Predicted Concentrations Excluding Development Area (µg/m³)		
			Base Case	Application Case	Change
LSA	24-hour	28	93.7	322.3 (324.5)	228.6 (230.8)
	Annual	10	14.0	39.1 (39.4)	25.1 (25.4)
RSA	24-hour	28	93.7	322.3(324.5)	228.6 (230.8)
	Annual	10	14.0	39.1 (39.4)	25.1 (25.4)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

LSA = local study area; RSA = regional study area; NWT = Northwest Territories; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; µm = micrometre; $µg/m^3$ = micrograms per cubic metre.

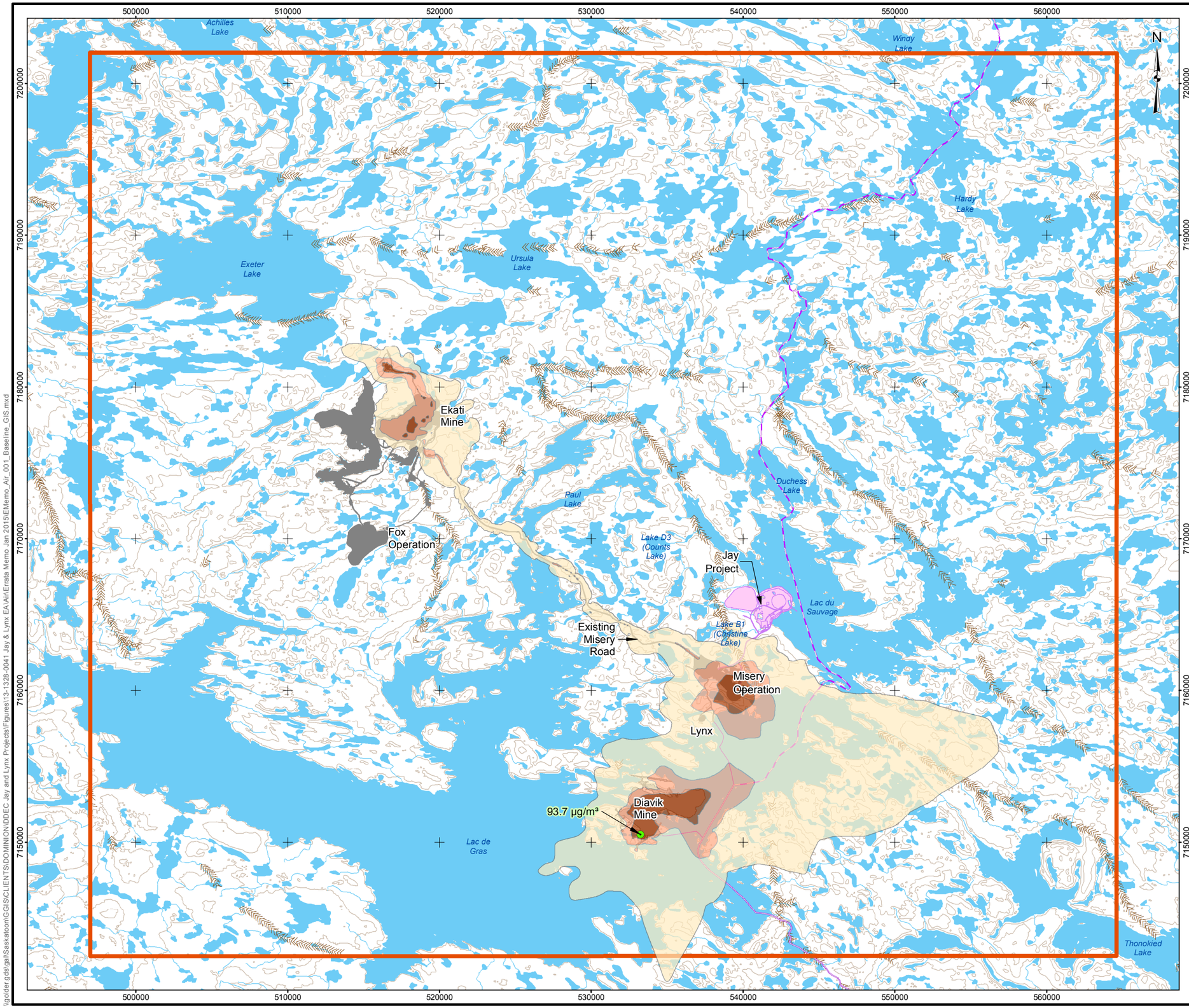
As shown in Table 4-3, the maximum frequency of exceedence of $PM_{2.5}$ air quality standards in the Application Case did not change. The areas exceeding the $PM_{2.5}$ air quality standards changed due to a more refined area of exceedence calculation method, decreased loading and unloading emissions, and increased road dust emissions.

Table 4-3 (DAR, Section 7, Table 7.4-17): Frequency and Area of $PM_{2.5}$, Predictions Above the NWT Ambient Air Quality Standards

Study Area	Averaging Period	Parameter	Base Case	Application Case	Change
LSA	24-hour	Frequency	44	155	111
		Area (ha)	543 (374)	4,517 (3,996)	3,974 (3,622)
	Annual	Area (ha)	20 (58)	309 (169)	289 (111)
RSA	24-hour	Frequency	44	155	111
		Area (ha)	543 (374)	4,517 (3,996)	3,974 (3,622)
	Annual	Area (ha)	20 (58)	309 (169)	289 (111)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

LSA = local study area; RSA = regional study area; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; µm = micrometre; ha = hectare.



LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 7 (BLANK)
- 7 to < 14
- 14 to < 28
- > 28
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

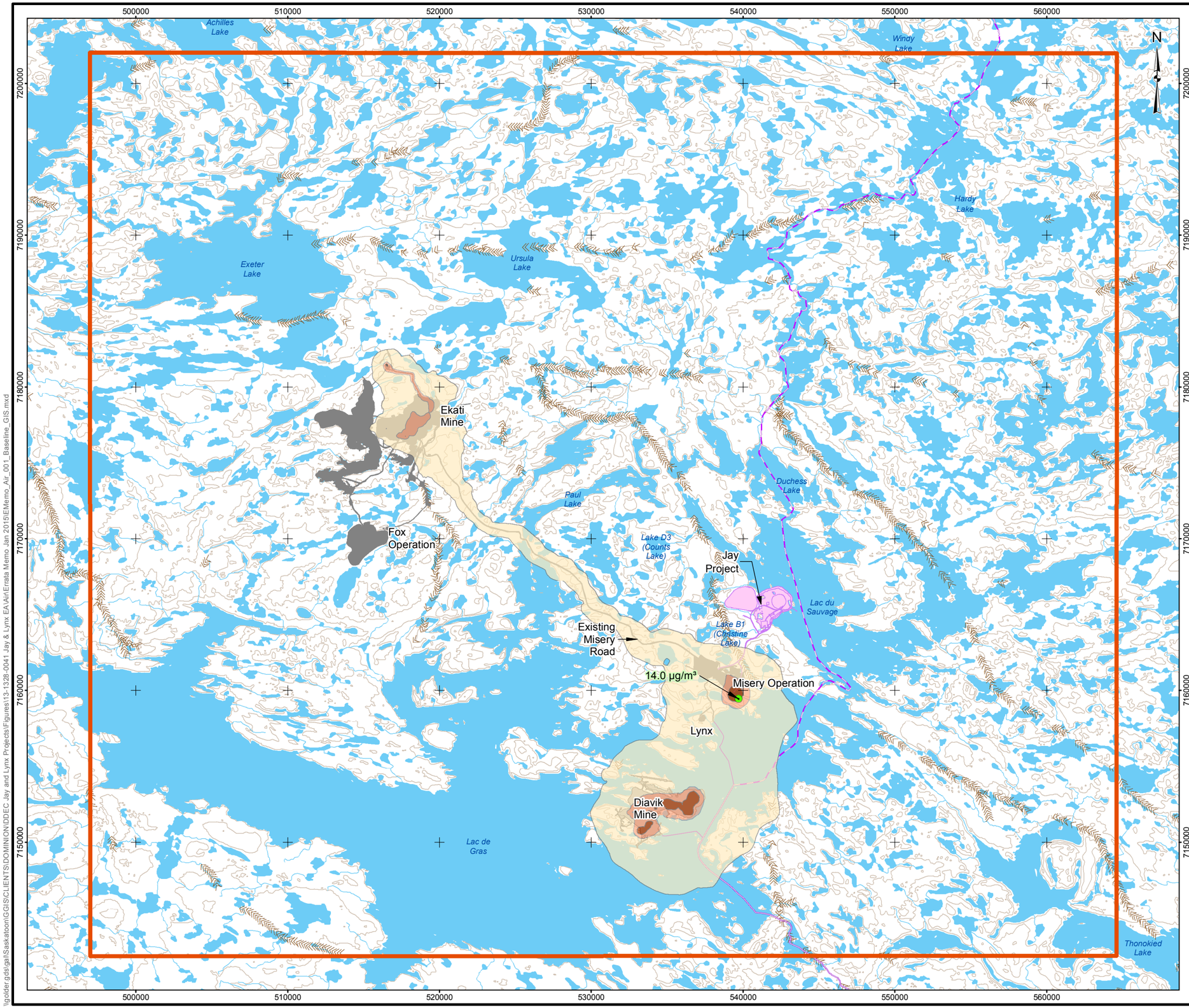
5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
BASE CASE MAXIMUM 24-HOUR $PM_{2.5}$ CONCENTRATIONS

Golder Associates

PROJECT	13-1328-0041	FILE No. EMemo_Air_001_Baseline_GIS	
DESIGN	DC 27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK 09/01/15		
CHECK	DC 16/01/15	MAP 4-1	
REVIEW	CM 16/01/15		



LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 2.5 (BLANK)
- 2.5 to < 5
- 5 to < 10
- > 10
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
BASE CASE MAXIMUM ANNUAL $PM_{2.5}$ CONCENTRATIONS

Golder Associates

PROJECT	13-1328-0041	FILE No. EMemo_Air_001_Baseline_GIS	
DESIGN	DC 27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK 09/01/15		
CHECK	DC 16/01/15	**MAP 4-2**	
REVIEW	CM 16/01/15		

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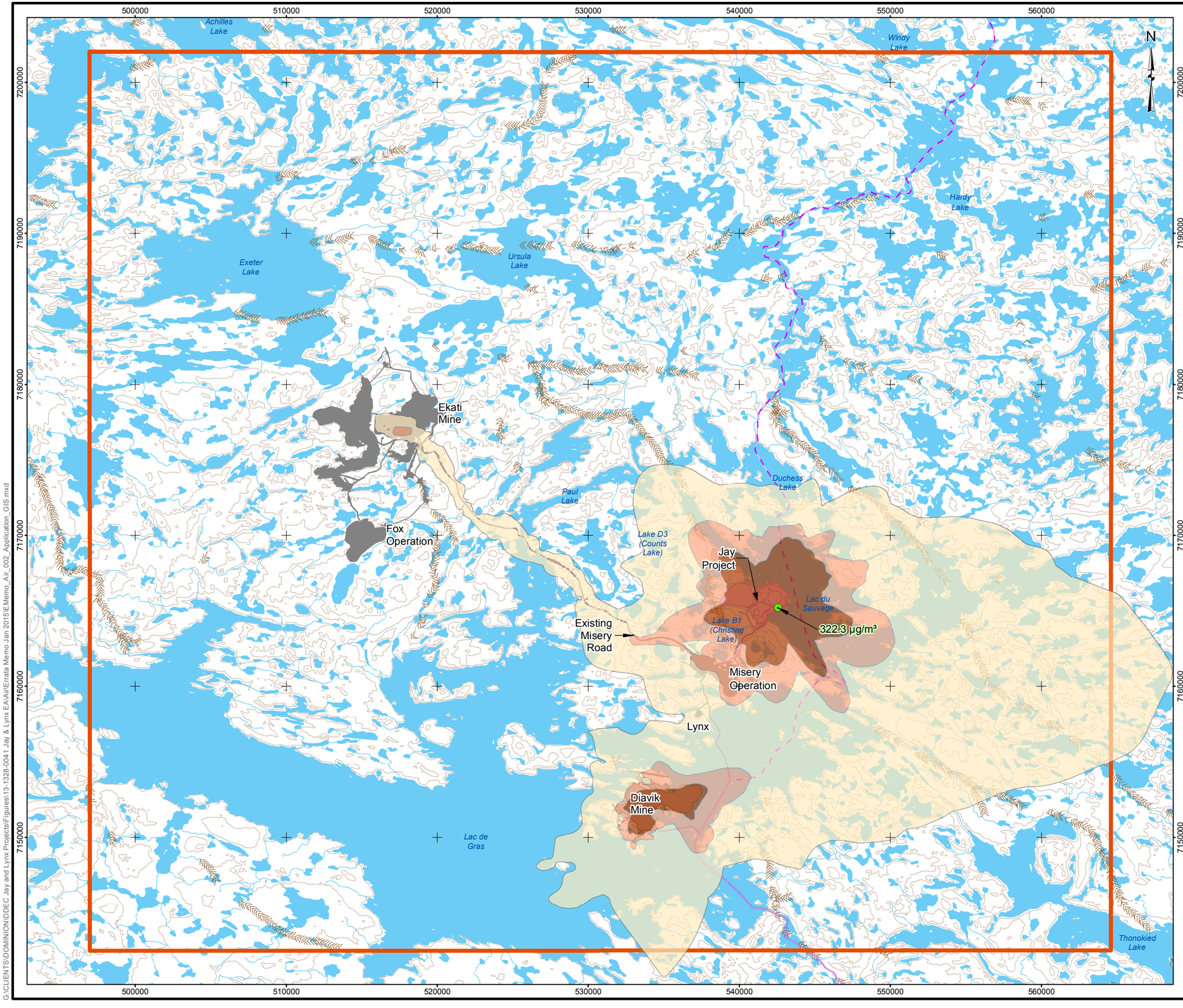

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
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- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 7 (BLANK)
- 7 to < 14
- 14 to < 28
- > 28
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
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SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
APPLICATION CASE MAXIMUM 24-HOUR $PM_{2.5}$ CONCENTRATIONS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_002_Application_GIS
DESIGN	DC	27/08/14	SCALE AS SHOWN REV 3
GIS	SM/AK	13/01/15	
CHECK	DC	16/01/15	MAP 4-3
REVIEW	CM	16/01/15	

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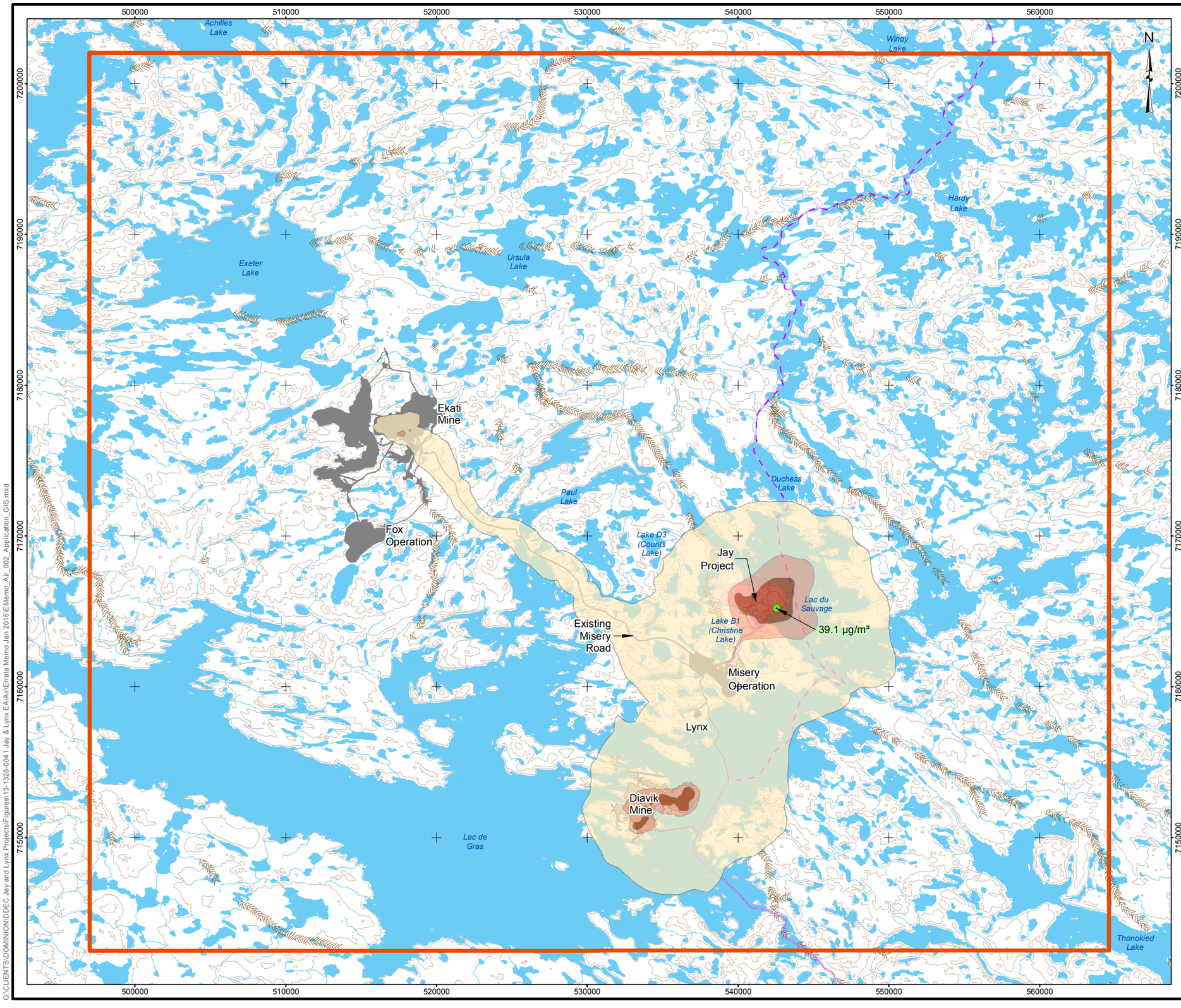

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
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- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 2.5 (BLANK)
- 2.5 to < 5
- 5 to < 10
- > 10
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
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DATUM: NAD83 PROJECTION: UTM ZONE 12N

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SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
APPLICATION CASE MAXIMUM ANNUAL $PM_{2.5}$ CONCENTRATIONS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_002_Application_GIS
DESIGN	DC	27/08/14	SCALE AS SHOWN REV 3
GIS	SM/AK	13/01/15	
CHECK	DC	16/01/15	MAP 4-4
REVIEW	CM	16/01/15	

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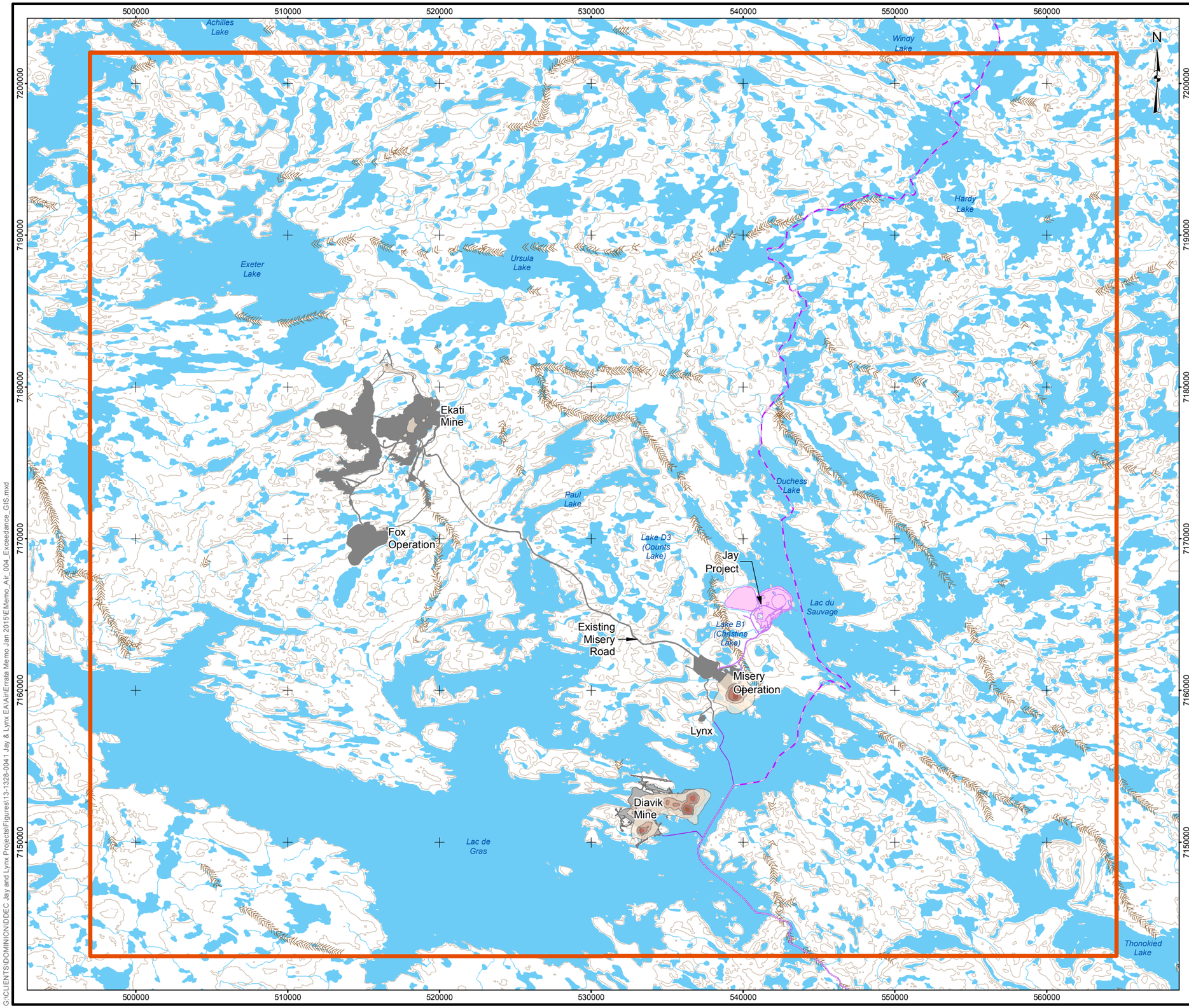

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

NUMBER OF DAYS OF EXCEEDANCE

- 1 to 14
- 15 to 30
- 31 to 60
- 61 to 120
- 121 to 180
- > 180

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
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5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
BASE CASE NUMBER OF DAYS EXCEEDING 24-HOUR $PM_{2.5}$ AIR QUALITY STANDARDS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_004_Exceedance_GIS	
DESIGN	DC	27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK	13/01/15	MAP 4-5	
CHECK	DC	16/01/15		
REVIEW	CM	16/01/15		

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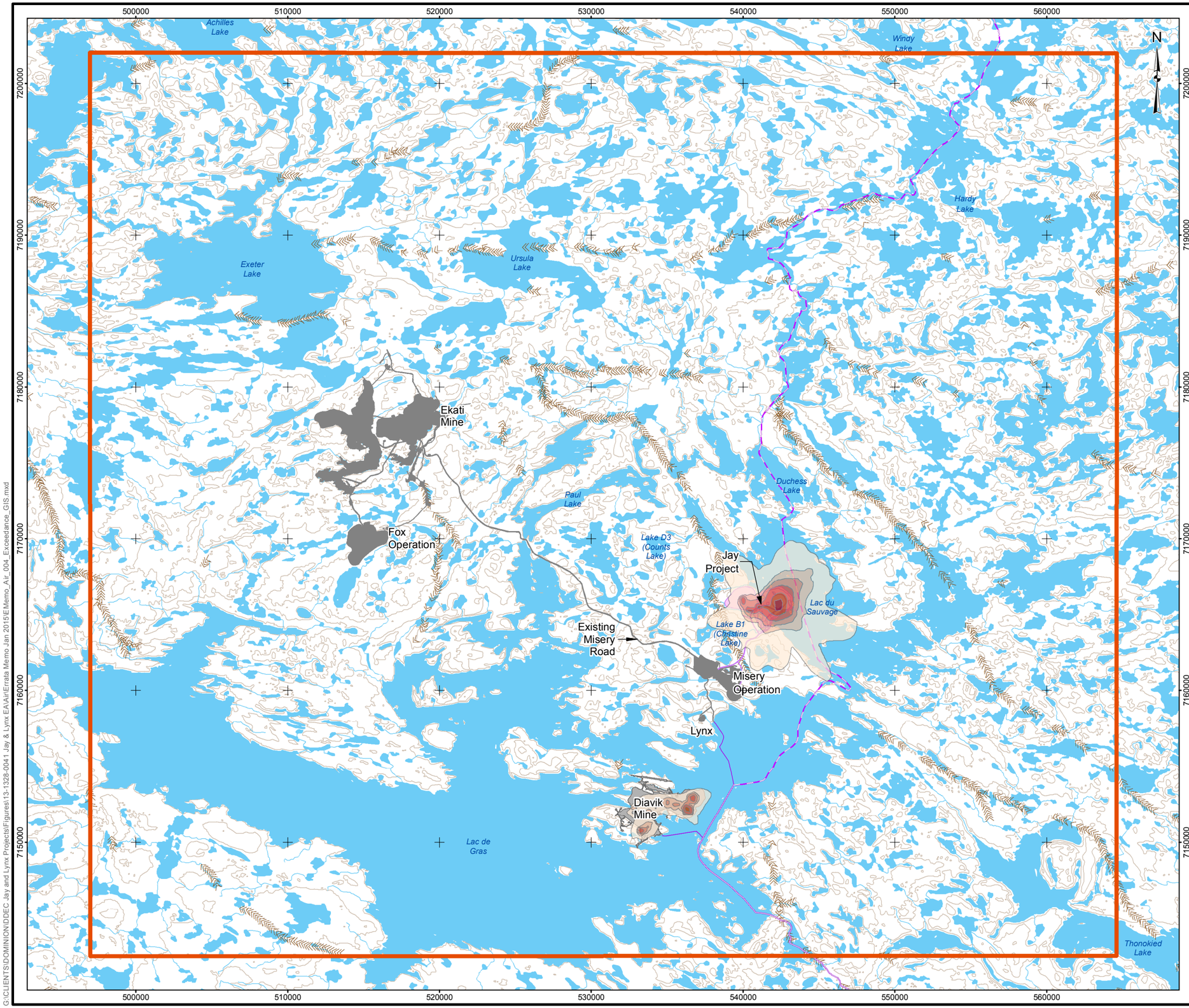

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

NUMBER OF DAYS OF EXCEEDANCE

- 1 to 14
- 15 to 30
- 31 to 60
- 61 to 120
- 121 to 180
- > 180

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
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5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
APPLICATION CASE NUMBER OF DAYS EXCEEDING 24-HOUR $PM_{2.5}$ AIR QUALITY STANDARDS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_004_Exceedance_GIS	
DESIGN	DC	27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK	13/01/15	MAP 4-6	
CHECK	DC	16/01/15		
REVIEW	CM	16/01/15		

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4.3 TSP Predictions

A comparison of the Base Case and Application Case predicted maximum 24-hour and annual TSP concentrations are shown in Table 4-4, while the comparison between the area and frequency of exceedences of the NWT air quality standards is shown in Table 4-5. The predicted 24-hour and annual TSP concentrations and number of days exceeding the 24-hour TSP air quality standards are shown in Maps 4-7 to 4-12.

As shown in Table 4-4, the maximum Base Case predictions increased while the maximum Application Case predictions decreased. The Base Case predictions increased due to Revision 7 discussed in Section 2.0. The Application Case emissions along the Misery Road increased due to Revision 5, but decreased overall due to Revision 9. The net change was a decrease.

Maps 4-7 and 4-8 show that the Base Case TSP concentration contours are either identical or very similar to those presented in the DAR. Maps 4-9 and 4-10 show that the Application Case TSP concentration contours are identical or very similar to the contours presented in the DAR, with the exception of the area adjacent to the Misery Road. The increased road dust emissions associated with Revision 5 in the Application Case resulted in wider TSP contours along the Misery Road. However, the overall TSP contours otherwise remain very similar to those from the DAR.

Table 4-4 (DAR, Section 7, Table 7.4-18): Comparison of Regional Base Case and Application Case for TSP

Study Area	Averaging Period	Criteria (NWT Ambient Air Quality Standards)	Maximum Predicted Concentrations Excluding Development Area (µg/m³)		
			Base Case	Application Case	Change
LSA	24-hour	120	1,096.5 (1,093.4)	4,298.4 (5,152.2)	3,201.9 (4,058.8)
	Annual	60	194.1 (190.0)	511.7 (607.6)	317.6 (416.6)
RSA	24-hour	120	1,096.5 (1,093.4)	4,298.4 (5,152.2)	3,201.9 (4,058.8)
	Annual	60	194.1 (190.0)	511.7 (607.6)	317.6 (416.6)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

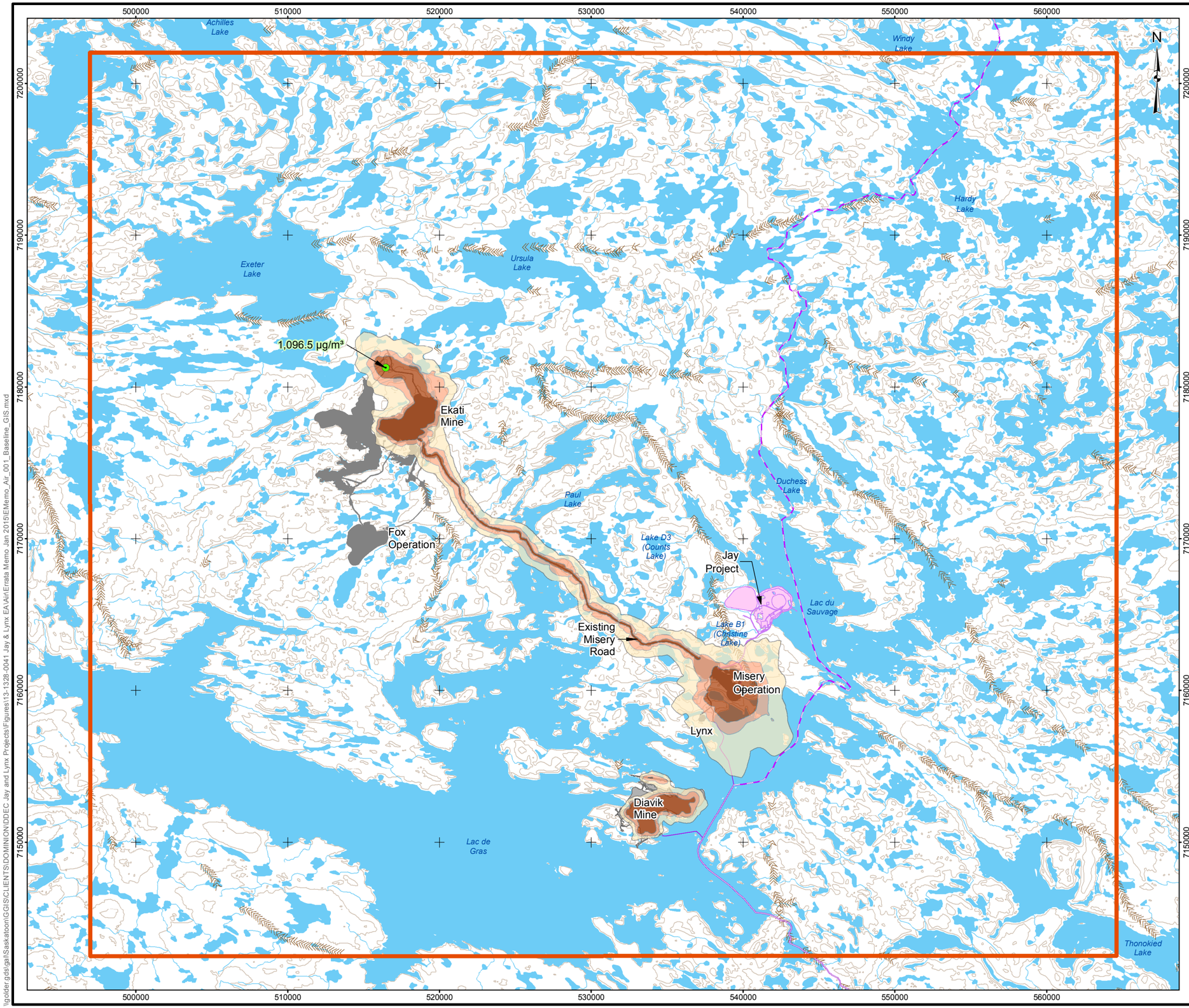
LSA = local study area; RSA = regional study area; NWT = Northwest Territories; TSP = Total suspended particulates; µg/m^3 = micrograms per cubic metre.

Table 4-5 (DAR, Section 7, Table 7.4-19) Frequency and Area of TSP Predictions Above the NWT Ambient Air Quality Standards

Study Area	Averaging Period	Parameter	Base Case	Application Case	Change
LSA	24-hour	Frequency	197 (194)	305 (324)	108 (130)
		Area (ha)	1,264 (1,039)	3,386 (3,417)	2,122 (2,378)
	Annual	Area (ha)	109 (71)	211 (222)	102 (151)
RSA	24-hour	Frequency	197 (194)	305 (324)	108 (130)
		Area (ha)	1,264 (1,039)	3,386 (3,417)	2,122 (2,378)
	Annual	Area (ha)	109 (71)	211 (222)	102 (151)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

NWT = Northwest Territories; LSA = local study area; RSA = regional study area; TSP = Total suspended particulates; ha = hectare.



LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 30 (BLANK)
- 30 to < 60
- 60 to < 120
- > 120
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
BASE CASE MAXIMUM 24-HOUR TOTAL SUSPENDED PARTICULATE CONCENTRATIONS

Golder Associates

PROJECT	13-1328-0041	FILE No. EMemo_Air_001_Baseline_GIS	
DESIGN	DC 27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK 09/01/15		
CHECK	DC 16/01/15	**MAP 4-7**	
REVIEW	CM 16/01/15		

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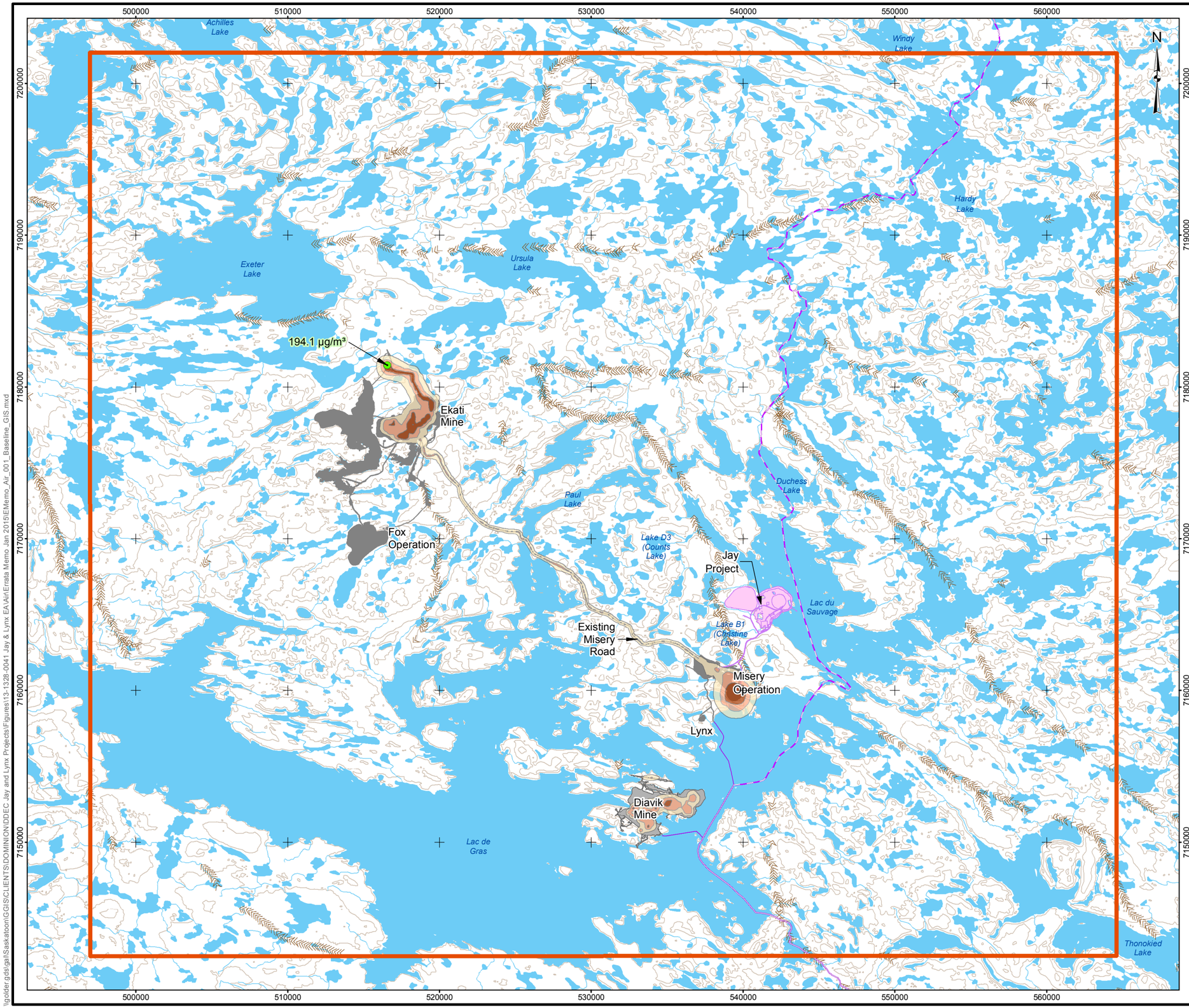

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 15 (BLANK)
- 15 to < 30
- 30 to < 60
- > 60
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
BASE CASE MAXIMUM ANNUAL TOTAL SUSPENDED PARTICULATE CONCENTRATIONS

Golder Associates

PROJECT	13-1328-0041	FILE No. EMemo_Air_001_Baseline_GIS	
DESIGN	DC 27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK 09/01/15		
CHECK	DC 16/01/15	**MAP 4-8**	
REVIEW	CM 16/01/15		

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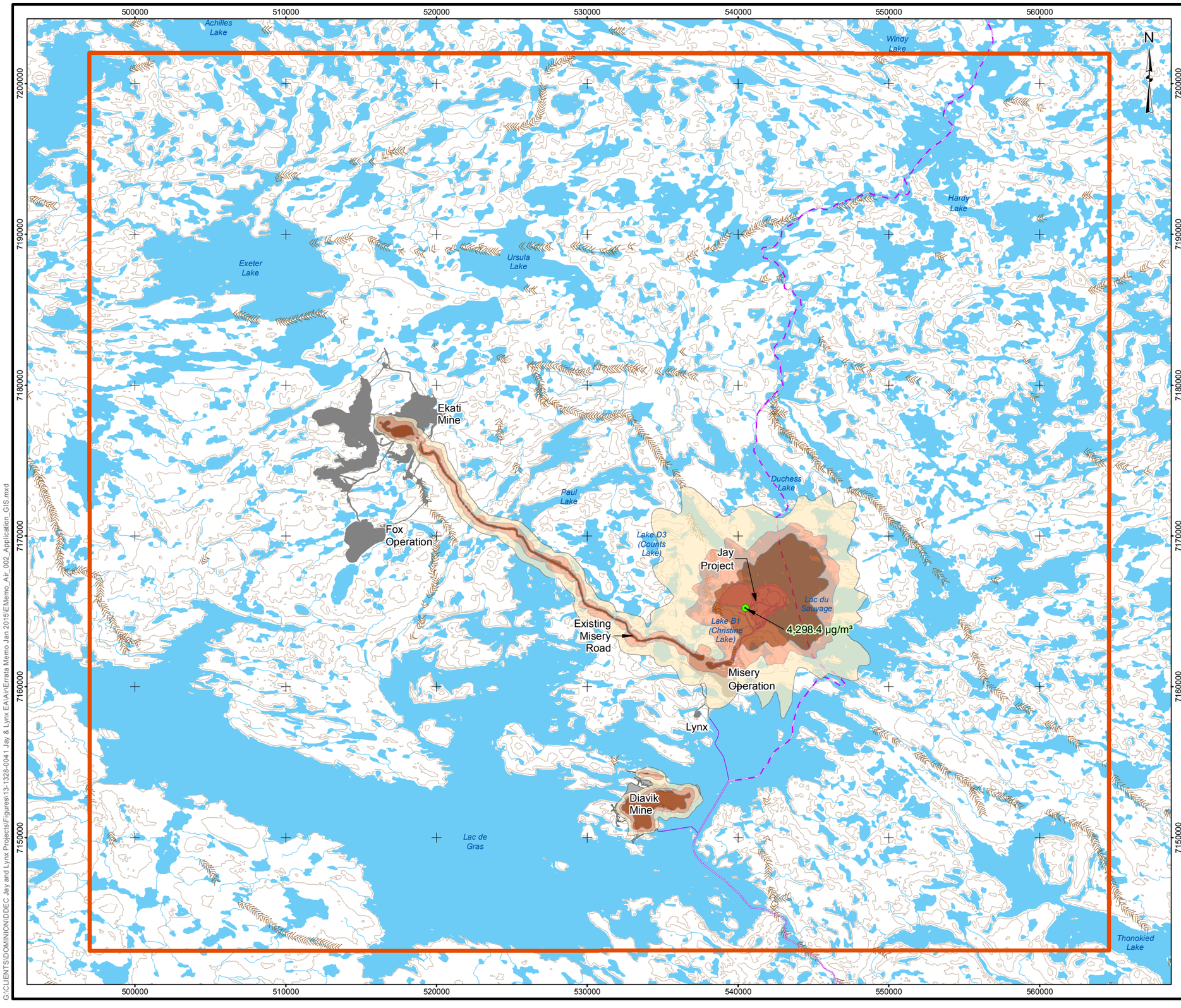

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 30 (BLANK)
- 30 to < 60
- 60 to < 120
- > 120
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
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NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

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SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
APPLICATION CASE MAXIMUM 24-HOUR TOTAL SUSPENDED PARTICULATE CONCENTRATIONS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_002_Application_GIS
DESIGN	DC	27/08/14	SCALE AS SHOWN REV 3
GIS	SM/AK	13/01/15	
CHECK	DC	16/01/15	MAP 4-9
REVIEW	CM	16/01/15	

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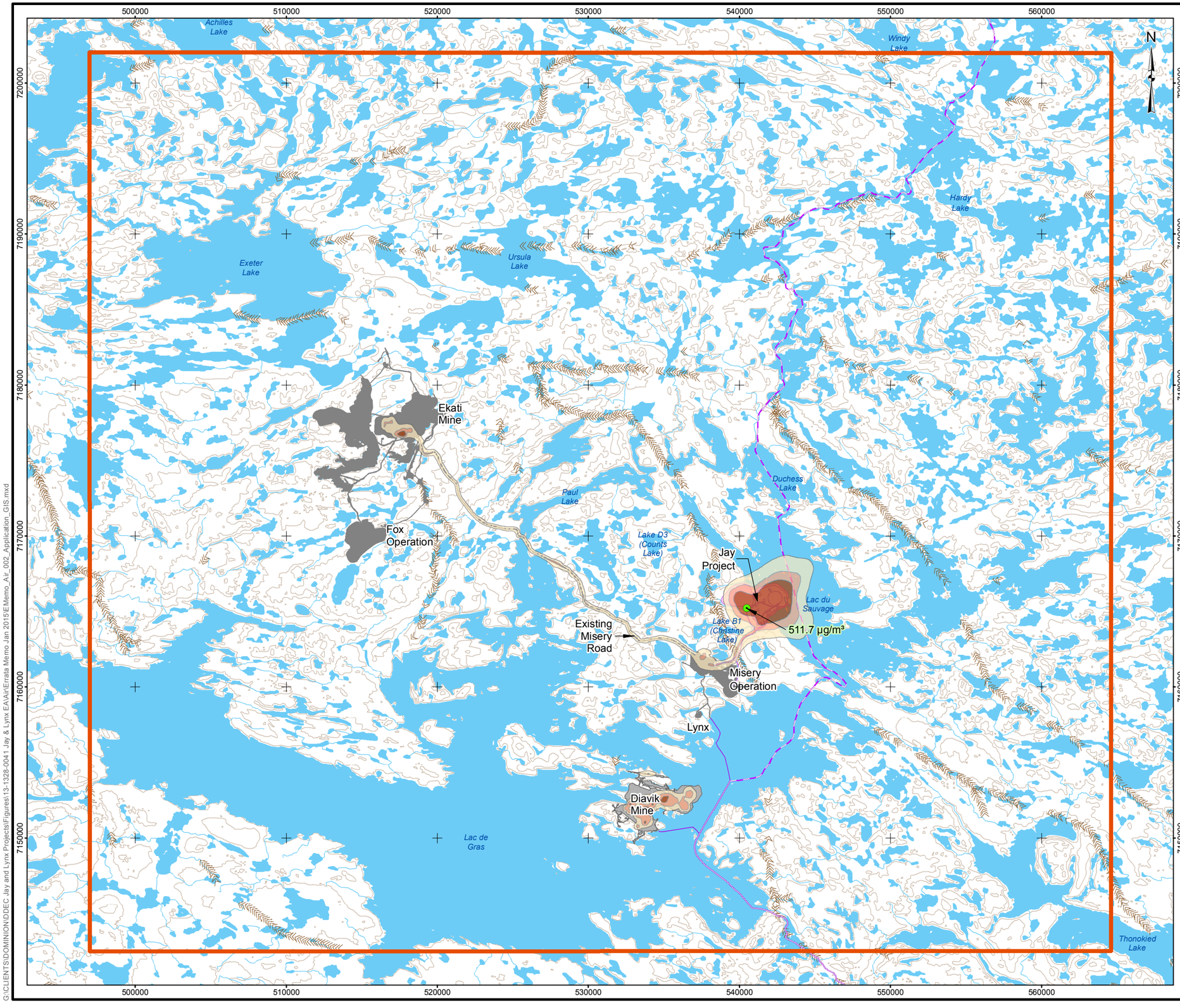

LEGEND

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- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
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- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 15 (BLANK)
- 15 to < 30
- 30 to < 60
- > 60
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
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5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
APPLICATION CASE MAXIMUM ANNUAL TOTAL SUSPENDED PARTICULATE CONCENTRATIONS

Golder Associates

PROJECT	13-1328-0041	FILE No. EMemo_Air_002_Application_GIS	
DESIGN	DC 27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK 13/01/15		
CHECK	DC 16/01/15	MAP 4-10	
REVIEW	CM 16/01/15		

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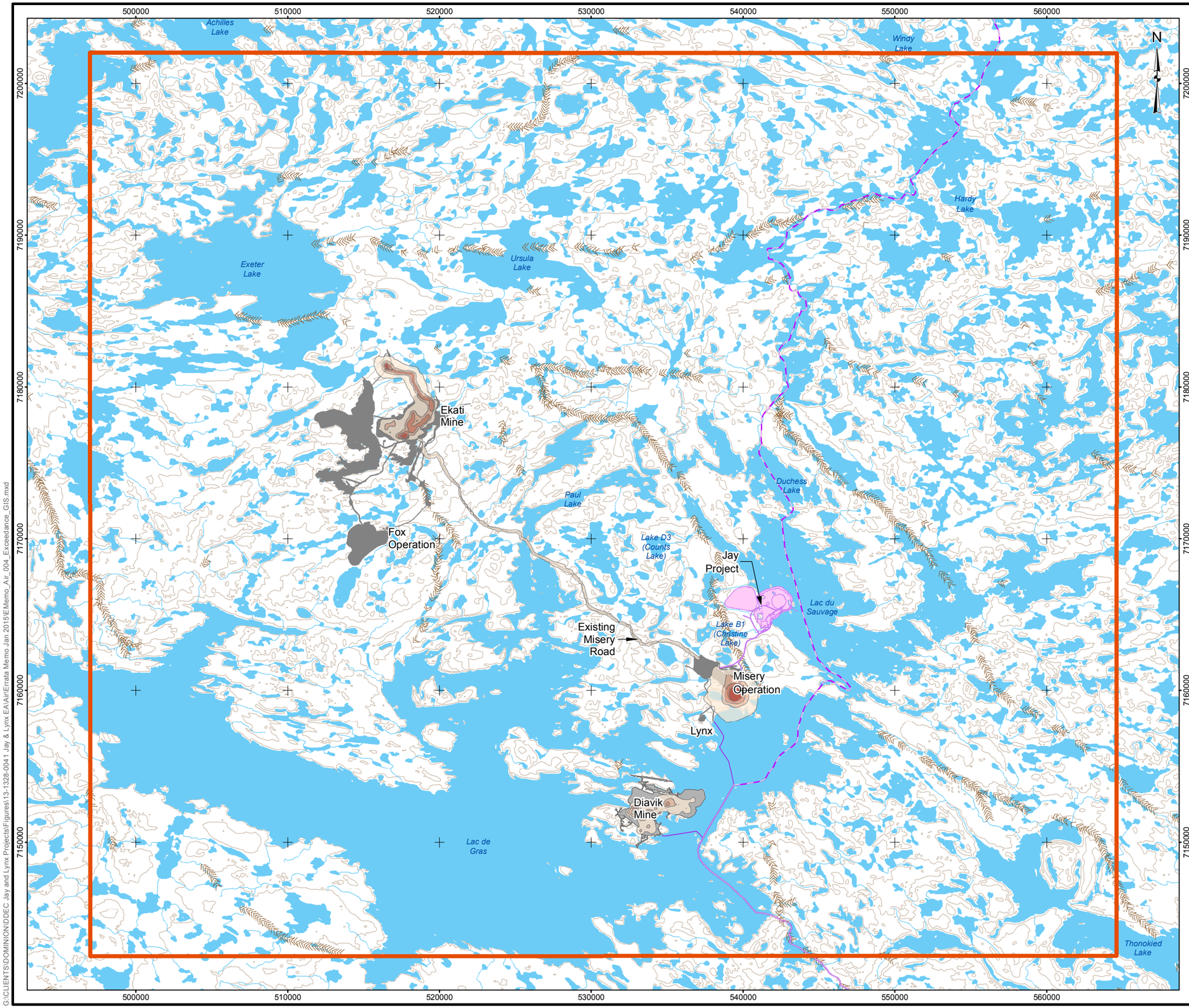

LEGEND

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- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

NUMBER OF DAYS OF EXCEEDANCE

- 1 to 30
- 31 to 60
- 61 to 120
- 121 to 240
- > 240

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
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DATUM: NAD83 PROJECTION: UTM ZONE 12N

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SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
BASE CASE NUMBER OF DAYS EXCEEDING 24-HOUR TOTAL SUSPENDED PARTICULATE AIR QUALITY STANDARDS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_004_Exceedance_GIS	
DESIGN	DC	27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK	13/01/15	MAP 4-11	
CHECK	DC	16/01/15		
REVIEW	CM	16/01/15		

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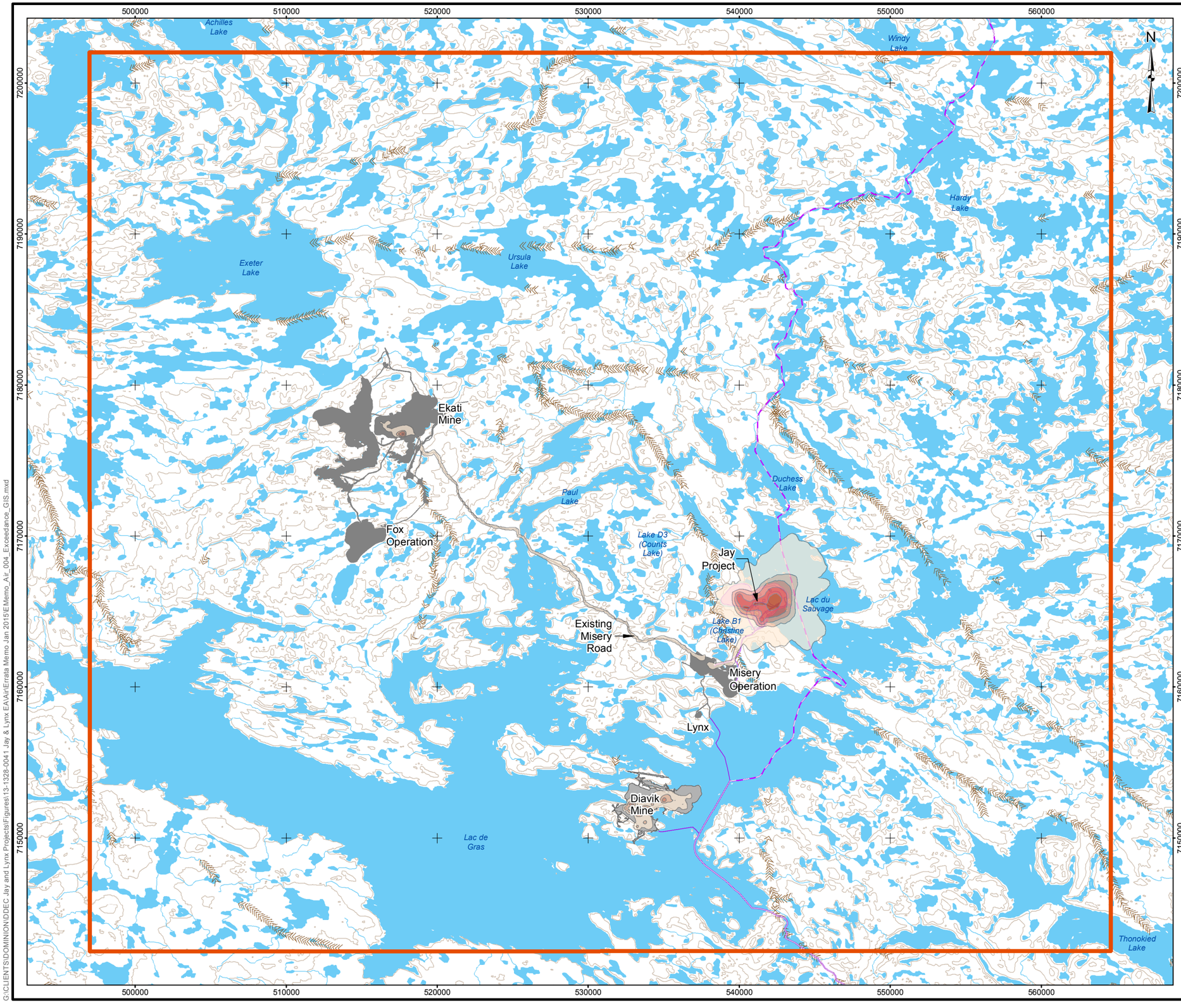

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

NUMBER OF DAYS OF EXCEEDANCE

- 1 to 30
- 31 to 60
- 61 to 120
- 121 to 240
- > 240

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
APPLICATION CASE NUMBER OF DAYS EXCEEDING 24-HOUR TOTAL SUSPENDED PARTICULATE AIR QUALITY STANDARDS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_004_Exceedance_GIS	
DESIGN	DC	27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK	13/01/15		
CHECK	DC	16/01/15	MAP 4-12	
REVIEW	CM	16/01/15		

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As shown in Table 4-5, the frequency of exceedences of TSP air quality standards increased for the Base Case, but decreased in the Application Case. The Base Case predictions increased due to Revision 7 discussed in Section 2.0. The Application Case predictions decreased due to an overestimate of the road dust TSP emissions in the original modelling. The areas exceeding the TSP air quality standards changed due to a more refined calculation method. The Application Case area of exceedance of the TSP air quality standards also decreased due to an overestimate of the road dust TSP emissions in the original modelling.

4.4 Construction Case $PM_{2.5}$ and TSP Predictions

Revised maximum predictions for $PM_{2.5}$ for the Construction Case are shown in Table 4-6, and the area and frequency of exceedences of the NWT air quality standards are shown in Table 4-7. Revised predictions are less than those presented in the DAR. This is due to Revision 8 discussed in Section 2.0, which resulted in decreased $PM_{2.5}$ emissions, as seen in Table 3-5. The predicted 24-hour and annual $PM_{2.5}$ concentrations are shown in Maps 4-13 and 4-14. Overall, the revisions resulted in similar $PM_{2.5}$ contours to those presented in the DAR.

Table 4-6 (DAR Section 7, Table 7.4-25) Construction Case Predicted $PM_{2.5}$ Concentrations

Study Area	Averaging Period	Criteria (NWT Ambient Air Quality Standards)	Maximum Predicted Concentrations Excluding Development Area (µg/m³)
LSA	24-hour	28	281.7 (302.6)
	Annual	10	43.1 (47.9)
RSA	24-hour	28	281.7 (302.6)
	Annual	10	43.1 (47.9)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

LSA = local study area; RSA = regional study area; NWT = Northwest Territories; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; µm = micrometre; $\mu g/m^3$ = micrograms per cubic metre.

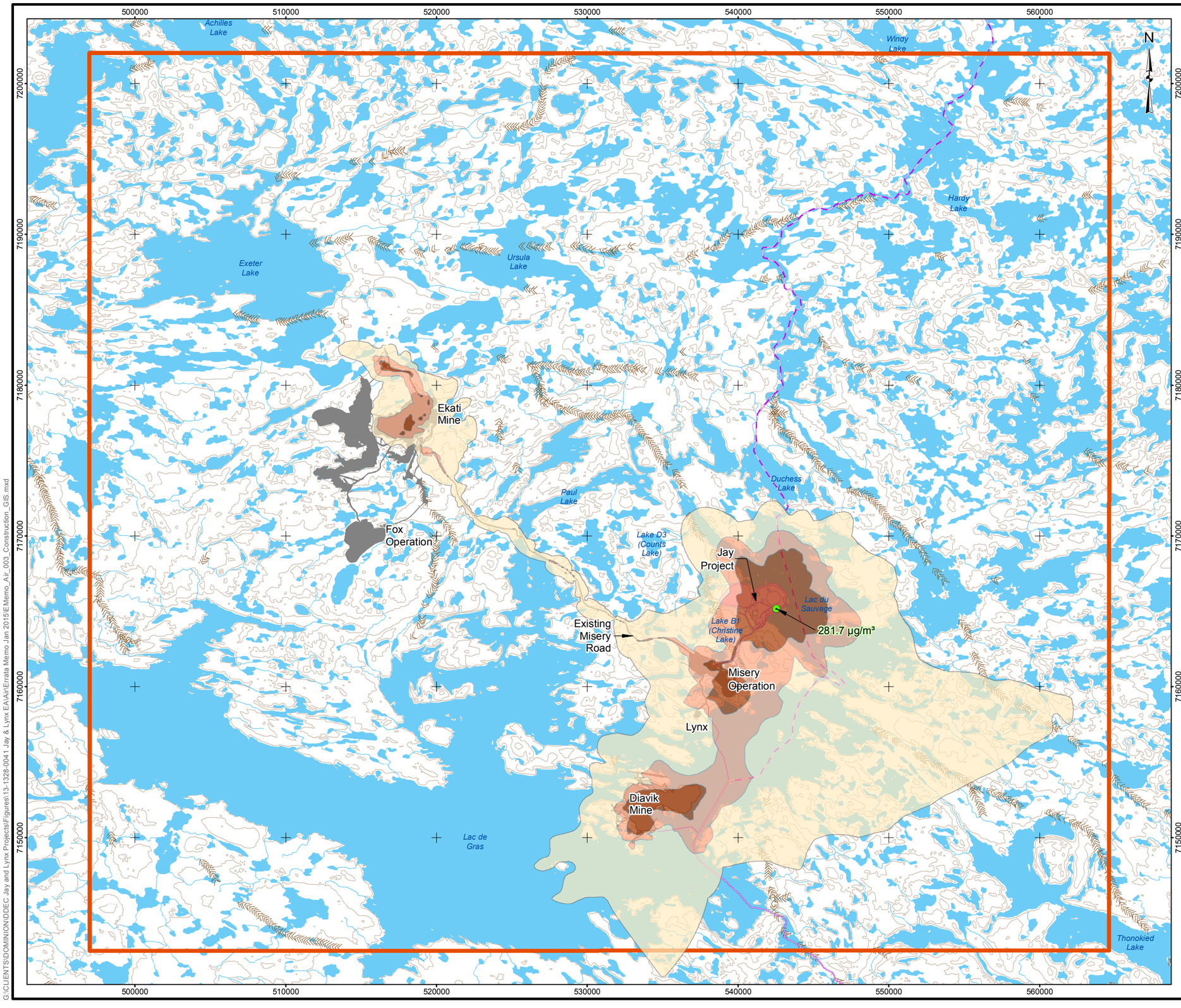
As shown in Table 4-7, the frequency of exceedences of $PM_{2.5}$ air quality standards did not change after remodelling. The areas exceeding the $PM_{2.5}$ air quality standards increased due to a more refined calculation method despite the reduction in loading, unloading, and grading emissions.

Table 4-7 (DAR, Section 7, Table 7.4-26): Frequency and Area of Construction Case $PM_{2.5}$ Predictions Above the NWT Ambient Air Quality Standards

Study Area	Averaging Period	Parameter	Construction Case
LSA	24-hour	Frequency	154
		Area (ha)	3,038 (2,820)
	Annual	Area (ha)	310 (234)
RSA	24-hour	Frequency	154
		Area (ha)	3,038 (2,820)
	Annual	Area (ha)	310 (234)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR.

NWT = Northwest Territories; LSA = local study area; RSA = regional study area; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; µm = micrometre; ha = hectare.



LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 7 (BLANK)
- 7 to < 14
- 14 to < 28
- > 28
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND

JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE

CONSTRUCTION CASE MAXIMUM 24-HOUR $PM_{2.5}$ CONCENTRATIONS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_003_Construction_GIS
DESIGN	DC	27/08/14	SCALE AS SHOWN REV 3
GIS	SM/AK	09/01/15	
CHECK	DC	16/01/15	MAP 4-13
REVIEW	CM	16/01/15	

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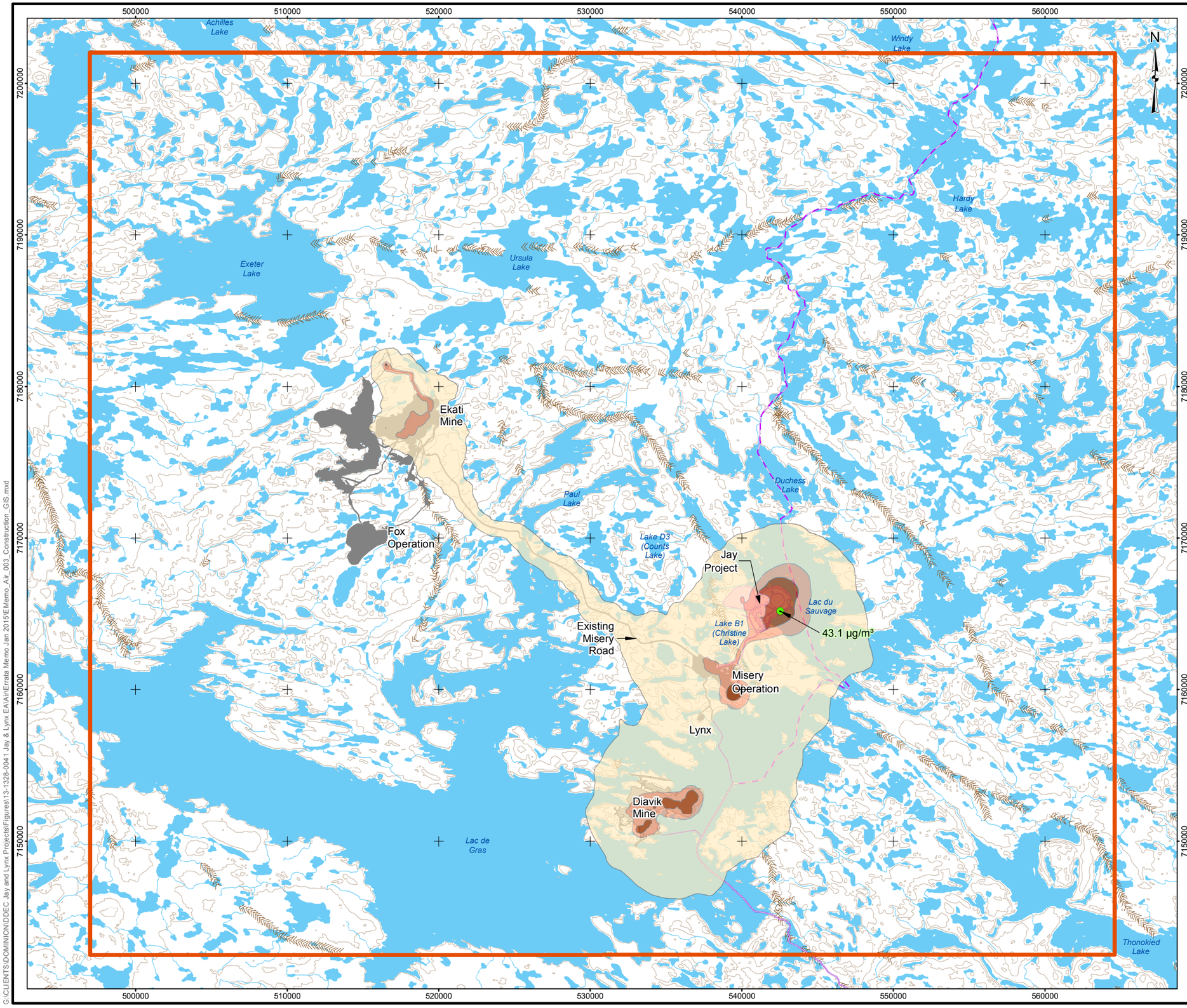

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 2.5 (BLANK)
- 2.5 to < 5
- 5 to < 10
- > 10
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
CONSTRUCTION CASE MAXIMUM ANNUAL $PM_{2.5}$ CONCENTRATIONS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_003_Construction_GIS	
DESIGN	DC	27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK	09/01/15	MAP 4-14	
CHECK	DC	16/01/15		
REVIEW	CM	16/01/15		

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Revised maximum predictions for TSP for the Construction Case are shown in Table 4-8, and the area and frequency of exceedences of the NWT air quality standards are shown in Table 4-9. Revised predictions are larger than those presented in the DAR. This is due to Revision 7. The predicted 24-hour and annual TSP concentrations are shown in Maps 4-15 and 4-16. Overall, the revisions resulted in similar TSP contours as presented in the DAR for the Construction Case.

Table 4-8 (DAR, Section 7, Table 7.4-27) Construction Case Predicted TSP Concentrations

Study Area	Averaging Period	Criteria (NWT Ambient Air Quality Standards)	Maximum Predicted Concentrations Excluding Development Area (µg/m³)
LSA	24-hour	120	3,046.5 (3,043.4)
	Annual	60	559.7 (556.6)
RSA	24-hour	120	3,046.5 (3,043.4)
	Annual	60	559.7 (556.6)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

LSA = local study area; RSA = regional study area; NWT = Northwest Territories; TSP = total suspended particulate; µg/m^3 = micrograms per cubic metre.

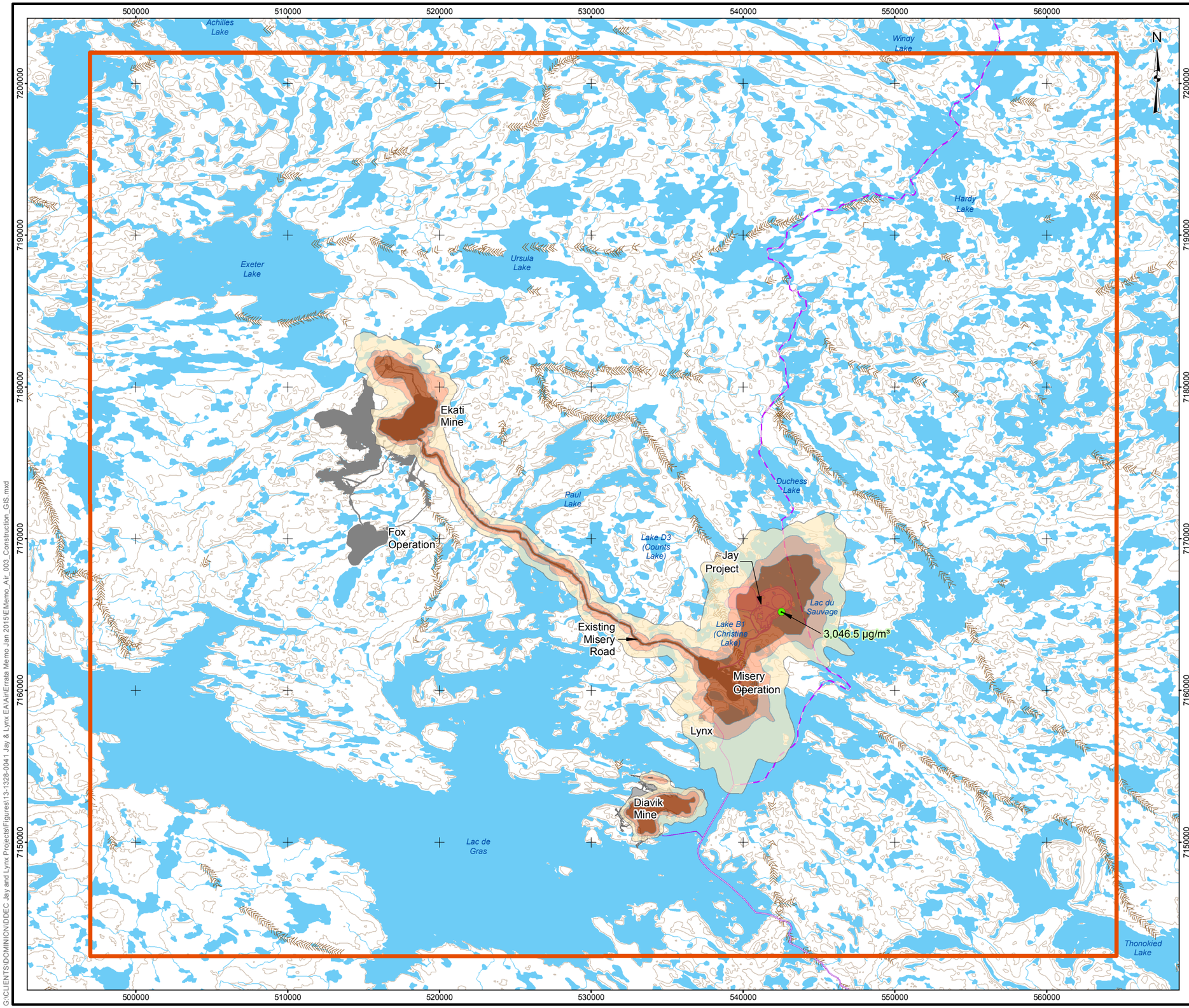
As shown in Table 4-9, the frequency of exceedences of TSP air quality standards decreased due to the revision of the background concentrations. The areas exceeding the TSP air quality standards changed due to a more refined calculation method and Revision 7.

Table 4-9 (DAR, Section 7, Table 7.4-28): Frequency and Area of Construction Case TSP Predictions Above the NWT Ambient Air Quality Standards

Study Area	Averaging Period	Parameter	Construction Case
LSA	24-hour	Frequency	310 (316)
		Area (ha)	3,107 (2,735)
	Annual	Area (ha)	510 (387)
RSA	24-hour	Frequency	310 (316)
		Area (ha)	3,107 (2,735)
	Annual	Area (ha)	510 (387)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

LSA = local study area; RSA = regional study area; NWT = Northwest Territories; TSP = total suspended particulate; ha = hectare.



LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 30 (BLANK)
- 30 to < 60
- 60 to < 120
- > 120
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
CONSTRUCTION CASE MAXIMUM 24-HOUR TOTAL SUSPENDED PARTICULATE CONCENTRATIONS

Golder Associates

PROJECT		13-1328-0041	FILE No. EMemo_Air_003_Construction_GIS	
DESIGN	DC	27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK	09/01/15		
CHECK	DC	16/01/15	MAP 4-15	
REVIEW	CM	16/01/15		

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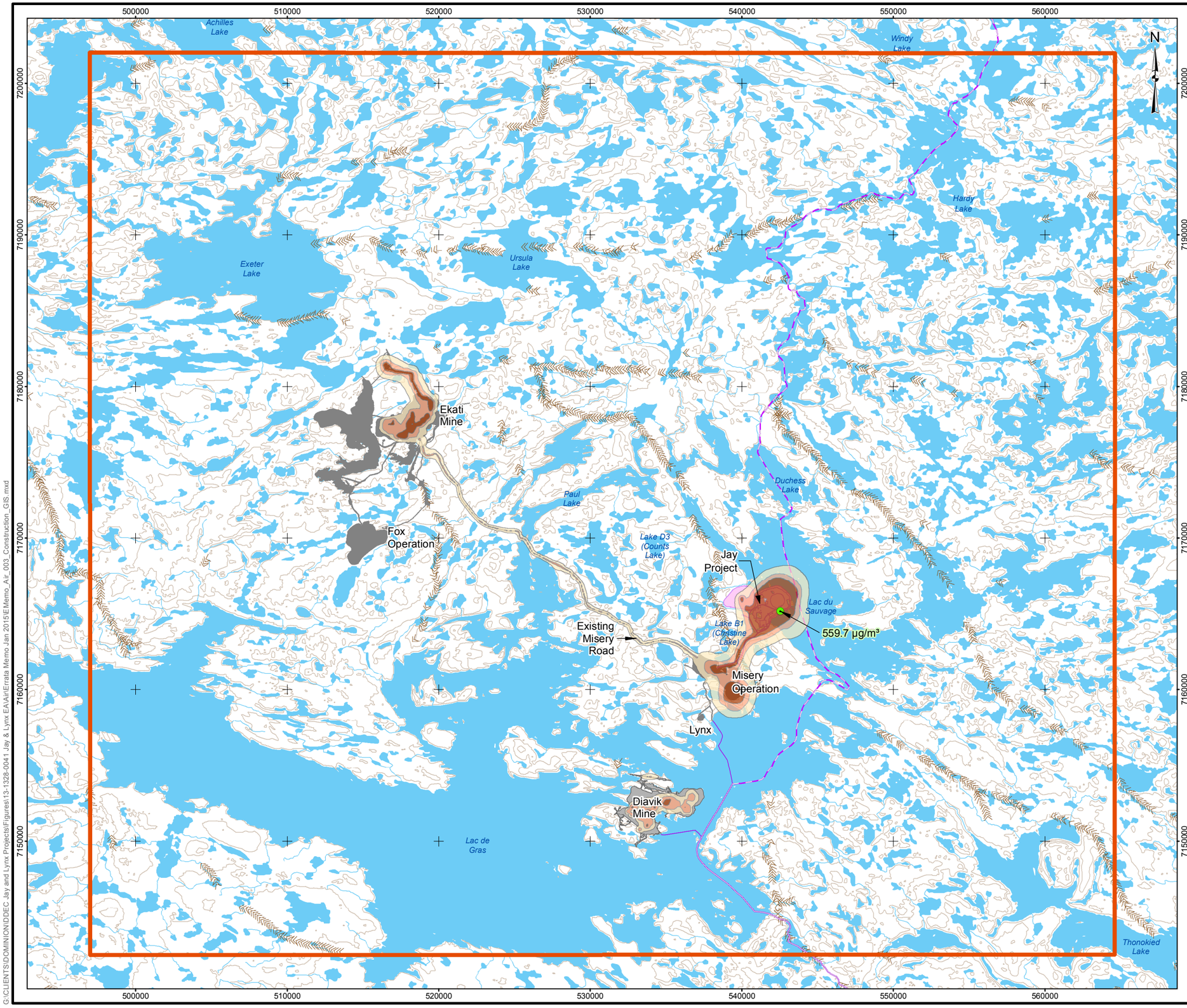

LEGEND

- EKATI MINE FOOTPRINT
- DIAVIK MINE FOOTPRINT
- PROPOSED JAY FOOTPRINT
- WINTER ROAD
- TIBBITT TO CONTWOYTO WINTER ROAD
- NORTHERN PORTION OF TIBBITT TO CONTWOYTO WINTER ROAD
- ELEVATION CONTOUR (20 m INTERVAL)
- ESKER
- WATERCOURSE
- WATERBODY
- LOCAL STUDY AREA

CONCENTRATIONS (µg/m³)

- 0 to < 15 (BLANK)
- 15 to < 30
- 30 to < 60
- > 60
- MAXIMUM POINT OF IMPINGEMENT

REFERENCE

NATIONAL TOPOGRAPHIC BASE DATA (NTDB) 1:250,000
CANVEC © NATURAL RESOURCES CANADA, 2012
NATURAL RESOURCES CANADA, CENTRE FOR TOPOGRAPHIC INFORMATION, 2012
DATUM: NAD83 PROJECTION: UTM ZONE 12N

5 0 5
SCALE 1:250,000 KILOMETRES

PROJECT
DOMINION DIAMOND™
JAY PROJECT
NORTHWEST TERRITORIES, CANADA

TITLE
CONSTRUCTION CASE MAXIMUM ANNUAL TOTAL SUSPENDED PARTICULATE CONCENTRATIONS

Golder Associates

PROJECT	13-1328-0041	FILE No. EMemo_Air_003_Construction_GIS	
DESIGN	DC 27/08/14	SCALE AS SHOWN	REV 3
GIS	SM/AK 09/01/15		
CHECK	DC 16/01/15	MAP 4-16	
REVIEW	CM 16/01/15		

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4.5 Air Quality Data Evaluated in the Human Health Risk Assessment

A summary of the maximum predictions for CACs in the local study area is provided in Table 4-10. As discussed for Tables 4-2 and 4-4, maximum predictions for $PM_{2.5}$ and TSP were revised.

Table 4-10 (DAR, Section 7, Table 7.4-29): Summary of Key Modelled Air Quality Concentrations in the Local Study Area

Compound	Averaging Period	NWT Ambient Air Quality Standards[a] (µg/m³)	Maximum Ground-level Concentration Outside the Project Lease Boundary (µg/m³)	
			Baseline	Application
SO_2	1-hour	450	15.6	15.6
	24-hour	150	5.9	5.9
	Annual	30	0.4	0.4
NO_2	1-hour	400	**499.9**	**500.4**
	24-hour	200	140.3	**320.9**
	Annual	60	42.1	**77.8**
CO	1-hour	15,000	1,418.8	2,407.2
	8-hour	6,000	981.9	1,949.4
$PM_{2.5}$	24-hour	30	**93.7**	**322.3 (324.5)**
	Annual	10	**14.0**	**39.1 (39.4)**
TSP	24-hour	120	**1,096.5 (1,093.4)**	**4,298.4 (5,152.2)**
	Annual	60	**194.1 (191.0)**	**511.7 (607.6)**

Note: A predicted concentration that exceeds a criterion is accentuated in **bold**. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

a) GNWT-ENR (2014).

µg/m³ = microgram per cubic metre; SO_2 = sulphur dioxide; NO_2 = nitrogen dioxide; CO = carbon monoxide; NWT = Northwest Territories; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; µm = micrometre; TSP = total suspended particulates.

In addition to the above changes in PM, also per Section 2.0, revisions were made to air quality data that are used in the Human Health Risk Assessment. In particular, VOCs, PAH, dioxins and furans, and metal predictions were revised. Appendix A shows the revised predictions at receptors evaluated in the Human Health Risk Assessment.

For VOCs, most predictions in all cases remained the same after remodelling. Most of the changes that occurred were decreases. This is expected, since as mentioned in Revision 1, the revised Diavik emissions for VOCs for underground mine heating were approximately two orders of magnitude lower than the emissions used in the DAR. Although the predictions at certain receptors for several VOC species, such as benzene and xylene, increased, the maximum prediction for all species in all cases decreased or remained the same after remodelling.

For PAHs, most predictions in all cases decreased after remodelling. This decrease is expected, since as mentioned in Revision 2, the revised Diavik emissions for PAHs for boilers and underground mine heating were approximately three orders of magnitude lower than the emissions used in the DAR. The maximum predictions for most species decreased or remained the same after remodelling. However, the maximum predictions for 9-methhyldibenzothiophene, benzo(e)pyrene, and biphenyl nearly doubled at receptors close to the Diavik Mine due to Revision 3. The waste incinerators are either the sole or the primary contributor of these three PAHs. Therefore, doubling the PAH emissions from the Diavik waste incinerators as noted in Revision 3 is expected to nearly double the predictions near the Diavik Mine.

For dioxins and furans, predicted concentrations and deposition rates either remained the same or increased at select receptors. The maximum predictions for all species increased. The increased predictions are primarily at receptors near the Diavik mine. These increases are expected, since as mentioned in Revision 3, the revised emissions for the Diavik waste incinerators were nearly double those used for the DAR. Waste incinerators are the only sources of dioxins and furans emissions; thus, an increase in Diavik waste incinerator emissions will be a major contribution to increases in dioxins and furans emissions.

For metals, the majority of maximum predicted concentrations decreased after remodelling due to an increased deposition of metal compounds as a result of Revision 4. Conversely, the metal deposition predictions have in general increased after the remodelling.

5.0 RESIDUAL IMPACT CLASSIFICATIONS AND SIGNIFICANCE

The definitions used for residual impact classification and determination of significance remain unchanged from the DAR. The residual impact classifications and significance determination was re-evaluated upon completion of the revisions described in this memo. The revisions did not impact the SO_2, NO_2, and CO emissions or model predictions; therefore, the residual impact classifications and significance for SO_2, NO_2, and CO remain unchanged from the DAR.

The revisions to TSP and $PM_{2.5}$ resulted in changes in predicted ground-level concentrations but did not result in a change in impact classification or significance since the magnitude of the effects remained high.

As a result of the revisions, the impact classification and prediction of significance on all air quality endpoints remain unchanged from the DAR. Table 7.6-3 from the DAR is unchanged and has not been presented here.

6.0 CONCLUSIONS

The revisions made to the air quality assessment, as discussed in this memo do not lead to any change the conclusions of the air quality assessment in the DAR. The revisions do result in changes to the model predicted concentrations and deposition rates at some receptor locations used in the Human Health Risk Assessment; the updated results have been provided to the risk team.

Dennis Chang
Senior Air Quality Scientist

Chris Madland
Associate, Senior Air Quality Scientist

DC/CM

7.0 REFERENCES

Brook, J.R., T.F. Dann, and R.T. Burnett. 1997. The Relationship Among TSP, PM_{10} and $PM_{2.5}$ and Inorganic Constituents of Atmospheric Particulate Matter at Multiple Canadian Locations. J. Air & Waste Manage. Assoc. 47:2-19.

Dominion Diamond (Dominion Diamond Ekati Corporation). 2014. Developer's Assessment Report for the Jay Project. Prepared by Golder Associates Ltd., October 2014. Yellowknife, NWT, Canada.

GNWT-ENR (Government of the Northwest Territories, Department of Environment and Natural Resources). 2014. Guideline for Ambient Air Quality Standards in the Northwest Territories. Department of Environment and Natural Resources, Government of the Northwest Territories'. February 2014. Available at: http://www.enr.gov.nt.ca/sites/default/files/guidelines/air_quality_standards_guideline.pdf

APPENDIX A

Air Dispersion Modelling Results

This appendix provides an update to the air dispersion modelling results concentrations presented in the Developer's Assessment Report (DAR), Section 7, Appendix 7A, and that were used in the human health risk assessment and the wildlife risk assessment. The results presented include the following compounds: particulate matter ($PM_{2.5}$, PM_{10}), total suspended particulates (TSP), volatile organic compounds (VOC), dioxins and furans, polycyclic aromatic hydrocarbons (PAH), and metals, as presented in Tables A-1 to A-15. The sulphur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), and potential acid input (PAI) results were not affected by the revisions, and therefore, remain unchanged from those presented in the DAR.

Table A-1 (DAR, Section 7, Appendix 7A, Table 7A2-4) $PM_{2.5}$ Predictions at Selected Locations

Location	Maximum 24-Hour[a] (µg/m³)		Maximum Annual[b] (µg/m³)	
	Base Case	Application Case	Base Case	Application Case
13DDJPA	4.6	131.8	2.2	16.7
13DDJPB	5.2	96.0	2.2	11.7
CAMS Polar Explosives	7.3	5.5	2.6	2.4
Courageous Lake Lodge	2.3	2.3	1.9	1.9
Diavik Camp	30.9	31.0	5.5	5.6
Diavik Traditional Knowledge Camp	10.2	10.5	2.6	2.7
Ekati Airport Station	7.2	7.3	2.9	2.8
Ekati Camp/Administration	9.2	7.7	3.1	2.8
Koala Station	5.2	4.7	2.4	2.3
Lac de Gras Winter Road Rest Stop	5.0	5.0	2.2	2.2
Lac De Grass Hunting Camp	7.8	8.7	2.2	2.3
Misery Camp	25.0	20.6	3.6	3.4
Pellatt Lake Cabin	2.7	2.8	1.9	1.9
Polar Lake Station	6.2	3.9	2.4	2.2
Salmita Airstrip	2.6	2.7	1.9	1.9
Treeline Lodge	2.6	2.7	1.9	1.9
TSP1	9.0	7.6	3.1	2.8
TSP2	6.9	4.5	2.5	2.2
TSP3	7.2	5.4	2.4	2.2
Jay Pit Boundary	6.2	322.3	2.3	39.1
Maximum Point of Impingement	93.7	322.3	14.0	39.1

a) The 24-hour NWT Standard for $PM_{2.5}$ is 28 µg/m³ (GNWT-ENR 2014).

b) The annual NWT Standard for $PM_{2.5}$ is 10 µg/m³ (GNWT-ENR 2014).

$PM_{2.5}$ = particulate matter of particle diameter less than 2.5 µm; µm = micrometre; µg/m³ = micrograms per cubic metres; NWT = Northwest Territories.

Reference:

GNWT-ENR (Government of the Northwest Territories, Department of Environment and Natural Resources). 2014. Guideline for Ambient Air Quality Standards in the Northwest Territories. Department of Environment and Natural Resources, Government of the Northwest Territories'. February 2014. Available at: http://www.enr.gov.nt.ca/sites/default/files/guidelines/air_quality_standards_guideline.pdf

Table A-2 (DAR, Section 7, Appendix 7A, Table 7A2-5) PM_{10} Predictions at Selected Locations

Location	Maximum 24-Hour[(a)] ($\mu g/m^3$)	
	Base Case	Application Case
13DDJPA	11.3	735.5
13DDJPB	9.3	480.2
CAMS Polar Explosives	24.8	13.8
Courageous Lake Lodge	3.0	3.2
Diavik Camp	51.6	51.5
Diavik TK Camp	16.1	14.9
Ekati Airport Station	30.4	18.9
Ekati Camp/Administration	42.6	23.4
Koala Station	17.2	8.8
Lac de Gras Winter Road Rest Stop	5.3	7.1
Lac De Grass Hunting Camp	9.5	13.7
Misery Camp	130.0	74.3
Pellatt Lake Cabin	3.2	3.8
Polar Lake Station	19.8	7.7
Salmita Airstrip	3.2	3.4
Treeline Lodge	3.2	3.4
TSP1	43.1	22.9
TSP2	22.0	8.7
TSP3	18.3	10.3
Jay Pit Boundary	18.0	1,536.8
Maximum Point of Impingement	579.3	1,536.8

a) There is no NWT standard for PM_{10}.

PM_{10} = particulate matter of particle diameter less than 10 µm; µm = micrometre; $\mu g/m^3$ = micrograms per cubic metres.

Table A-3 (DAR, Section 7, Appendix 7A, Table 7A2-6) TSP Predictions at Selected Locations

Location	Maximum 24-Hour[a] (µg/m³)		Maximum Annual[b] (µg/m³)	
	Base	Application	Base	Application
13DDJPA	17.6	1,095.7	3.8	104.2
13DDJPB	13.5	659.4	3.8	79.4
CAMS Polar Explosives	47.5	19.4	7.9	5.4
Courageous Lake Lodge	3.4	3.6	3.1	3.1
Diavik Camp	112.1	112.1	12.5	12.5
Diavik TK Camp	11.2	16.0	4.0	4.1
Ekati Airport Station	46.6	44.8	11.0	8.7
Ekati Camp/Administration	65.7	47.7	14.6	10.3
Koala Station	21.3	12.3	5.1	4.4
Lac de Gras Winter Road Rest Stop	6.3	9.6	3.4	3.5
Lac De Grass Hunting Camp	7.5	11.7	3.5	3.7
Misery Camp	138.8	65.2	16.8	8.2
Pellatt Lake Cabin	3.4	3.8	3.1	3.1
Polar Lake Station	27.8	8.3	6.0	3.7
Salmita Airstrip	3.4	3.5	3.1	3.1
Treeline Lodge	3.4	3.5	3.1	3.1
TSP1	66.6	48.3	14.5	10.3
TSP2	31.2	8.9	5.7	3.9
TSP3	24.7	16.9	6.2	4.0
Jay Pit Boundary	25.5	4,298.4	4.4	511.7
Maximum Point of Impingement	1,096.5	4,298.4	194.1	511.7

a) The 24-hour NWT Standard for TSP is 120 µg/m³ (GNWT-ENR 2014).

b) The annual NWT Standard for TSP is 60 µg/m³ (GNWT-ENR 2014).

TSP = total suspended particulates; µg/m³ = micrograms per cubic metres; NWT = Northwest Territories.

Reference:

GNWT-ENR (Government of the Northwest Territories, Department of Environment and Natural Resources). 2014. Guideline for Ambient Air Quality Standards in the Northwest Territories. Department of Environment and Natural Resources, Government of the Northwest Territories'. February 2014. Available at: http://www.enr.gov.nt.ca/sites/default/files/guidelines/air_quality_standards_guideline.pdf

Table A-4 (DAR, Section 7, Appendix 7A, Table 7A2-7) Maximum 1-Hour VOC Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.09809	4.06861	0.08708	3.98576	0.14907	0.20940	0.00814	0.01733	1.87473	1.88909	0.34305	0.36219	0.15735	0.29573
Acrolein	0.08342	3.45833	0.07407	3.38790	0.12671	0.17799	0.00693	0.01474	1.59357	1.60578	0.29171	0.30798	0.13375	0.25137
Benzaldehyde	0.09319	3.86518	0.08273	3.78647	0.14162	0.19893	0.00774	0.01647	1.78099	1.79464	0.32590	0.34408	0.14948	0.28094
2,5-dimethylbenzaldehyde	0.10054	4.17033	0.08926	4.08541	0.15280	0.21464	0.00835	0.01777	1.92159	1.93632	0.35162	0.37124	0.16129	0.30312
Butanal	0.03188	1.32230	0.02830	1.29537	0.04845	0.06806	0.00265	0.00563	0.60929	0.61396	0.11149	0.11771	0.05114	0.09611
Formaldehyde	0.54852	22.68261	0.48851	22.22067	0.85803	1.16780	0.04662	0.09783	10.45556	10.53549	1.91573	2.02227	0.91580	1.64958
Acetaldehyde	1.02521	42.51703	0.91018	41.65123	1.55781	2.18826	0.08512	0.18115	19.59107	19.74120	3.58525	3.78527	1.64433	3.09034
Propanal	0.34332	14.24014	0.30480	13.95017	0.52175	0.73291	0.02851	0.06067	6.56154	6.61183	1.20067	1.26766	0.55073	1.03504
Crotonaldehyde	0.32861	13.62985	0.29173	13.35231	0.49939	0.70150	0.02728	0.05807	6.28034	6.32846	1.14921	1.21334	0.52713	0.99068
Hexanal	0.05395	2.23774	0.04790	2.19217	0.08199	0.11517	0.00448	0.00953	1.03110	1.03900	0.18868	0.19920	0.08654	0.16265
Heptanal	0.07847	3.25489	0.06967	3.18861	0.11926	0.16752	0.00652	0.01387	1.49978	1.51128	0.27444	0.28975	0.12588	0.23658
Octanal	0.07602	3.15318	0.06749	3.08897	0.11553	0.16229	0.00631	0.01343	1.45291	1.46405	0.26586	0.28070	0.12195	0.22919
Nonanal	0.10790	4.47547	0.09579	4.38434	0.16398	0.23034	0.00896	0.01907	2.06220	2.07800	0.37735	0.39841	0.17309	0.32530
Decanal	0.06866	2.84803	0.06096	2.79003	0.10435	0.14658	0.00570	0.01213	1.31231	1.32237	0.24013	0.25353	0.11015	0.20701
Undecanal	0.06376	2.64460	0.05661	2.59075	0.09690	0.13611	0.00529	0.01127	1.21857	1.22791	0.22298	0.23542	0.10228	0.19222
Dodecanal	0.02943	1.22058	0.02613	1.19573	0.04472	0.06282	0.00244	0.00520	0.56242	0.56673	0.10291	0.10866	0.04721	0.08872
Tridecanal	0.04905	2.03431	0.04354	1.99288	0.07454	0.10470	0.00407	0.00867	0.93736	0.94455	0.17152	0.18109	0.07868	0.14786
1,2,4-trimethylbenzene	0.02158	0.89509	0.01916	0.87687	0.03280	0.04607	0.00179	0.00381	0.41244	0.41560	0.07547	0.07968	0.03462	0.06506
1,3,5-trimethylbenzene	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
Benzene	0.07149	2.78777	0.06426	2.73028	0.14754	0.14800	0.00728	0.01226	1.28956	1.29940	0.24715	0.26026	0.16623	0.20286
Ethylbenzene	0.01153	0.47806	0.01025	0.46833	0.01757	0.02461	0.00096	0.00204	0.22030	0.22199	0.04032	0.04257	0.01859	0.03476
Propylbenzene	0.00245	0.10172	0.00218	0.09964	0.00373	0.00524	0.00020	0.00043	0.04687	0.04723	0.00858	0.00905	0.00393	0.00739
Indanone	0.00170	0.07069	0.00151	0.06925	0.00259	0.00364	0.00014	0.00030	0.03257	0.03282	0.00596	0.00629	0.00273	0.00514
Toluene	0.09942	4.04857	0.08889	3.96585	0.15347	0.20847	0.00850	0.01763	1.86806	1.88233	0.34619	0.36520	0.16418	0.29462
3-ethyl-toluene	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
4-ethyl-toluene	0.01275	0.52892	0.01132	0.51815	0.01938	0.02722	0.00106	0.00225	0.24371	0.24558	0.04460	0.04708	0.02046	0.03844
Acetone	0.53951	22.37737	0.47897	21.92170	0.81990	1.15171	0.04479	0.09534	10.31100	10.39001	1.88677	1.99204	0.86544	1.62649
Acetophenone	0.12507	5.18748	0.11103	5.08185	0.19007	0.26699	0.01038	0.02210	2.39028	2.40859	0.43739	0.46179	0.20062	0.37705
methyl ethyl ketone	0.18392	7.62865	0.16328	7.47331	0.27951	0.39263	0.01527	0.03250	3.51511	3.54205	0.64322	0.67911	0.29504	0.55449
Xylene	0.05821	2.37016	0.05189	2.32172	0.08688	0.12201	0.00485	0.01020	1.09338	1.10175	0.20286	0.21401	0.09176	0.17235
o-xylene	0.02036	0.84424	0.01808	0.82705	0.03102	0.04345	0.00169	0.00360	0.38902	0.39200	0.07119	0.07516	0.03278	0.06137
Ethylene	0.20992	8.70683	0.18636	8.52953	0.31901	0.44812	0.01743	0.03709	4.01192	4.04266	0.73412	0.77509	0.33673	0.63285
1,1,1-trichloroethane (methyl chloroform)	0.00011	0.00011	0.00010	0.00010	0.00027	0.00012	0.00001	0.00001	0.00161	0.00161	0.00048	0.00048	0.00035	0.00006
Butane	0.09392	3.89570	0.08338	3.81637	0.14274	0.20050	0.00780	0.01660	1.79505	1.80881	0.32847	0.34680	0.15066	0.28316
2,2-dimethylbutane	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292
2,3-dimethylbutane	0.01398	0.57978	0.01241	0.56797	0.02124	0.02984	0.00116	0.00247	0.26715	0.26920	0.04888	0.05161	0.02242	0.04214
Isobutene	0.02796	1.15955	0.02482	1.13594	0.04249	0.05968	0.00232	0.00494	0.53430	0.53839	0.09777	0.10322	0.04485	0.08428
cis-2-butene	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
trans-2-butene	0.01275	0.52892	0.01132	0.51815	0.01938	0.02722	0.00106	0.00225	0.24371	0.24558	0.04460	0.04708	0.02046	0.03844
2-methyl-1-butene	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
3-methyl-1-butene	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
1,3-butadiene	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292
Cyclopentane	0.01005	0.41703	0.00893	0.40854	0.01528	0.02146	0.00083	0.00178	0.19216	0.19363	0.03516	0.03712	0.01613	0.03031
Methylcyclopentane	0.01520	0.63064	0.01350	0.61779	0.02311	0.03246	0.00126	0.00269	0.29058	0.29281	0.05317	0.05614	0.02439	0.04584
Pentane	0.04561	1.89190	0.04049	1.85338	0.06932	0.09737	0.00379	0.00806	0.87175	0.87843	0.15952	0.16842	0.07317	0.13751
Isopentane	0.06719	2.78700	0.05965	2.73025	0.10211	0.14344	0.00558	0.01187	1.28419	1.29403	0.23499	0.24810	0.10779	0.20257
2-methylpentane	0.02281	0.94595	0.02025	0.92669	0.03466	0.04869	0.00189	0.00403	0.43587	0.43921	0.07976	0.08421	0.03658	0.06876
3-methylpentane	0.01643	0.68149	0.01459	0.66762	0.02497	0.03507	0.00136	0.00290	0.31402	0.31642	0.05746	0.06067	0.02636	0.04953
2,3-dimethylpentane	0.01766	0.73235	0.01568	0.71744	0.02683	0.03769	0.00147	0.00312	0.33745	0.34004	0.06175	0.06519	0.02832	0.05323
2,4-dimethylpentane	0.01005	0.41703	0.00893	0.40854	0.01528	0.02146	0.00083	0.00178	0.19216	0.19363	0.03516	0.03712	0.01613	0.03031
2,2,4-trimethylpentane	0.03041	1.26127	0.02700	1.23559	0.04621	0.06491	0.00252	0.00537	0.58117	0.58562	0.10635	0.11228	0.04878	0.09167
2,3,4-trimethylpentane	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292
2-methyl-2-pentene	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
trans-2-pentene	0.00123	0.05086	0.00109	0.04982	0.00186	0.00262	0.00010	0.00022	0.02343	0.02361	0.00429	0.00453	0.00197	0.00370
Cyclohexane	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
Methylcyclohexane	0.01275	0.52892	0.01132	0.51815	0.01938	0.02722	0.00106	0.00225	0.24371	0.24558	0.04460	0.04708	0.02046	0.03844

Table A-4 (DAR, Section 7, Appendix 7A, Table 7A2-7) Maximum 1-Hour VOC Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Pentylcyclohexane	0.00206	0.08534	0.00183	0.08360	0.00313	0.00439	0.00017	0.00036	0.03932	0.03962	0.00720	0.00760	0.00330	0.00620
Dodecylcyclohexane	0.00041	0.01709	0.00037	0.01674	0.00063	0.00088	0.00003	0.00007	0.00787	0.00793	0.00144	0.00152	0.00066	0.00124
Tridecylcyclohexane	0.00040	0.01678	0.00036	0.01644	0.00061	0.00086	0.00003	0.00007	0.00773	0.00779	0.00142	0.00149	0.00065	0.00122
Tetradecylcyclohexane	0.00039	0.01617	0.00035	0.01584	0.00059	0.00083	0.00003	0.00007	0.00745	0.00751	0.00136	0.00144	0.00063	0.00118
Pentadecylcyclohexane	0.00031	0.01302	0.00028	0.01275	0.00048	0.00067	0.00003	0.00006	0.00600	0.00605	0.00110	0.00116	0.00050	0.00095
2-methylhexane	0.01398	0.57978	0.01241	0.56797	0.02124	0.02984	0.00116	0.00247	0.26715	0.26920	0.04888	0.05161	0.02242	0.04214
3-methylhexane	0.00760	0.31532	0.00675	0.30890	0.01155	0.01623	0.00063	0.00134	0.14529	0.14640	0.02659	0.02807	0.01219	0.02292
3-ethylhexane	0.00515	0.21360	0.00457	0.20925	0.00783	0.01099	0.00043	0.00091	0.09842	0.09918	0.01801	0.01901	0.00826	0.01553
2,3-dimethylhexane	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
2,4-dimethylhexane	0.00123	0.05086	0.00109	0.04982	0.00186	0.00262	0.00010	0.00022	0.02343	0.02361	0.00429	0.00453	0.00197	0.00370
2,5-dimethylhexane	0.00123	0.05086	0.00109	0.04982	0.00186	0.00262	0.00010	0.00022	0.02343	0.02361	0.00429	0.00453	0.00197	0.00370
cis-2-hexene	0.00245	0.10172	0.00218	0.09964	0.00373	0.00524	0.00020	0.00043	0.04687	0.04723	0.00858	0.00905	0.00393	0.00739
trans-2-hexene	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
Heptane	0.01153	0.47806	0.01023	0.46833	0.01752	0.02460	0.00096	0.00204	0.22028	0.22197	0.04031	0.04256	0.01849	0.03475
2-methylheptane	0.00245	0.10172	0.00218	0.09964	0.00373	0.00524	0.00020	0.00043	0.04687	0.04723	0.00858	0.00905	0.00393	0.00739
Octane	0.00638	0.26446	0.00566	0.25907	0.00969	0.01361	0.00053	0.00113	0.12186	0.12279	0.02230	0.02354	0.01023	0.01922
Nonane	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
Dodecane	0.01234	0.51163	0.01095	0.50121	0.01875	0.02633	0.00102	0.00218	0.23575	0.23755	0.04314	0.04555	0.01979	0.03719
Tridecane	0.01170	0.48518	0.01038	0.47530	0.01778	0.02497	0.00097	0.00207	0.22356	0.22527	0.04091	0.04319	0.01876	0.03527
Tetradecane	0.01543	0.63979	0.01369	0.62676	0.02344	0.03293	0.00128	0.00273	0.29480	0.29706	0.05394	0.05695	0.02474	0.04650
n-pentadecane	0.00976	0.40483	0.00866	0.39658	0.01483	0.02084	0.00081	0.00172	0.18654	0.18796	0.03413	0.03604	0.01566	0.02942
Hexadecane	0.01744	0.72320	0.01548	0.70847	0.02650	0.03722	0.00145	0.00308	0.33323	0.33579	0.06098	0.06438	0.02797	0.05257
n-heptadecane	0.01506	0.62453	0.01337	0.61181	0.02288	0.03214	0.00125	0.00266	0.28777	0.28998	0.05266	0.05560	0.02415	0.04539
n-octadecane	0.01474	0.61131	0.01308	0.59886	0.02240	0.03146	0.00122	0.00260	0.28168	0.28384	0.05154	0.05442	0.02364	0.04443
n-nonadecane	0.01008	0.41805	0.00895	0.40954	0.01532	0.02152	0.00084	0.00178	0.19263	0.19410	0.03525	0.03721	0.01617	0.03039
n-eicosane	0.00505	0.20953	0.00448	0.20527	0.00768	0.01078	0.00042	0.00089	0.09655	0.09729	0.01767	0.01865	0.00810	0.01523
n-heneicosane	0.00161	0.06693	0.00143	0.06557	0.00245	0.00344	0.00013	0.00029	0.03084	0.03108	0.00564	0.00596	0.00259	0.00486
Farnesane	0.01064	0.44144	0.00945	0.43246	0.01617	0.02272	0.00088	0.00188	0.20341	0.20497	0.03722	0.03930	0.01707	0.03209
Pristine	0.01086	0.45060	0.00964	0.44142	0.01651	0.02319	0.00090	0.00192	0.20763	0.20922	0.03799	0.04011	0.01743	0.03275
Aldehyde	3.17882	131.82320	2.82221	129.13870	4.82996	6.78466	0.26394	0.56167	60.74192	61.20739	11.11653	11.73669	5.09822	9.58153
Ketone	0.85021	35.26419	0.75480	34.54610	1.29206	1.81497	0.07059	0.15024	16.24896	16.37348	2.97333	3.13923	1.36383	2.56316
Trimethylbenzenes	0.02796	1.15955	0.02482	1.13594	0.04249	0.05968	0.00232	0.00494	0.53430	0.53839	0.09777	0.10322	0.04485	0.08428
Xylene	0.07857	3.21440	0.06997	3.14876	0.11790	0.16546	0.00654	0.01380	1.48240	1.49375	0.27405	0.28917	0.12454	0.23372
c_2-c_6 aliphatic	0.73290	29.76462	0.65335	29.15597	1.09109	1.53227	0.06088	0.12810	13.73262	13.83771	2.55291	2.69292	1.15103	2.16405
c_7-c_8 aliphatic	0.13193	5.47228	0.11713	5.36085	0.20050	0.28165	0.01095	0.02331	2.52151	2.54083	0.46140	0.48715	0.21164	0.39775
c_9-c_{10} aliphatic	0.00392	0.16274	0.00348	0.15943	0.00596	0.00838	0.00033	0.00069	0.07499	0.07556	0.01372	0.01449	0.00629	0.01183
c_{11}-c_{12} aliphatic	0.01476	0.61212	0.01310	0.59966	0.02243	0.03150	0.00123	0.00261	0.28205	0.28421	0.05161	0.05449	0.02367	0.04449
c_{13}-c_{16} aliphatic	0.08486	3.51976	0.07534	3.44808	0.12896	0.18115	0.00705	0.01500	1.62183	1.63426	0.29677	0.31333	0.13613	0.25583
c_{17}-c_{21} aliphatic	0.08416	3.49057	0.07471	3.41949	0.12789	0.17965	0.00699	0.01487	1.60837	1.62070	0.29431	0.31073	0.13500	0.25371
c_6-c_8 aromatic	0.18244	7.31440	0.16340	7.16446	0.27351	0.37666	0.01542	0.03194	3.37792	3.40371	0.63366	0.66803	0.29097	0.53224
c_9-c_{10} aromatic	0.02035	0.84424	0.01807	0.82705	0.03093	0.04345	0.00169	0.00360	0.38901	0.39199	0.07118	0.07515	0.03265	0.06136

C = carbon; µg/m^3 = micrograms per cubic metres.

Table A-4 (DAR, Section 7, Appendix 7A, Table 7A2-7) Maximum 1-Hour VOC Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.19247	0.40645	0.12344	0.12186	0.10762	0.11778	0.10891	0.19535	0.34358	0.85405	0.01555	0.04762	0.10355	0.10522
Acrolein	0.16361	0.34549	0.10493	0.10359	0.09152	0.10016	0.09263	0.16604	0.29215	0.72595	0.01322	0.04048	0.08802	0.08944
Benzaldehyde	0.18285	0.38613	0.11727	0.11577	0.10224	0.11189	0.10346	0.18558	0.32640	0.81135	0.01477	0.04523	0.09838	0.09996
2,5-dimethylbenzaldehyde	0.19729	0.41662	0.12653	0.12491	0.11031	0.12073	0.11163	0.20023	0.35217	0.87541	0.01593	0.04881	0.10614	0.10785
Butanal	0.06255	0.13210	0.04012	0.03960	0.03498	0.03828	0.03539	0.06349	0.11166	0.27757	0.00505	0.01548	0.03365	0.03420
Formaldehyde	1.11340	2.26833	0.70865	0.68052	0.60820	0.66482	0.61855	1.08906	1.94042	4.76188	0.08917	0.26796	0.61044	0.58676
Acetaldehyde	2.01136	4.24747	1.28998	1.27344	1.12477	1.23094	1.13828	2.04136	3.59076	8.92488	0.16248	0.49761	1.08213	1.09960
Propanal	0.67366	1.42259	0.43205	0.42651	0.37667	0.41223	0.38117	0.68371	1.20253	2.98919	0.05441	0.16665	0.36244	0.36828
Crotonaldehyde	0.64479	1.36162	0.41353	0.40823	0.36053	0.39457	0.36484	0.65441	1.15100	2.86108	0.05208	0.15951	0.34690	0.35250
Hexanal	0.10586	0.22355	0.06789	0.06702	0.05919	0.06478	0.05990	0.10744	0.18897	0.46973	0.00855	0.02619	0.05695	0.05787
Heptanal	0.15398	0.32516	0.09875	0.09749	0.08610	0.09422	0.08713	0.15628	0.27486	0.68324	0.01244	0.03809	0.08284	0.08418
Octanal	0.14917	0.31500	0.09567	0.09444	0.08341	0.09128	0.08440	0.15139	0.26627	0.66189	0.01205	0.03690	0.08025	0.08155
Nonanal	0.21172	0.44710	0.13579	0.13405	0.11838	0.12956	0.11980	0.21488	0.37794	0.93946	0.01710	0.05238	0.11391	0.11575
Decanal	0.13473	0.28452	0.08641	0.08530	0.07533	0.08245	0.07623	0.13674	0.24051	0.59784	0.01088	0.03333	0.07249	0.07366
Undecanal	0.12511	0.26420	0.08024	0.07921	0.06995	0.07656	0.07079	0.12697	0.22333	0.55514	0.01010	0.03095	0.06731	0.06840
Dodecanal	0.05774	0.12194	0.03703	0.03656	0.03229	0.03533	0.03267	0.05860	0.10307	0.25622	0.00466	0.01428	0.03107	0.03157
Tridecanal	0.09624	0.20323	0.06172	0.06093	0.05381	0.05889	0.05445	0.09767	0.17179	0.42703	0.00777	0.02381	0.05178	0.05261
1,2,4-trimethylbenzene	0.04234	0.08942	0.02716	0.02681	0.02368	0.02591	0.02396	0.04298	0.07559	0.18789	0.00342	0.01048	0.02278	0.02315
1,3,5-trimethylbenzene	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
Benzene	0.14393	0.27929	0.08519	0.08398	0.07814	0.08510	0.08101	0.13388	0.24641	0.58565	0.01152	0.03349	0.07124	0.07247
Ethylbenzene	0.02270	0.04776	0.01455	0.01432	0.01271	0.01390	0.01281	0.02295	0.04046	0.10036	0.00183	0.00560	0.01224	0.01236
Propylbenzene	0.00481	0.01016	0.00309	0.00305	0.00269	0.00294	0.00272	0.00488	0.00859	0.02135	0.00039	0.00119	0.00259	0.00263
Indanone	0.00334	0.00706	0.00214	0.00212	0.00187	0.00205	0.00189	0.00339	0.00597	0.01484	0.00027	0.00083	0.00180	0.00183
Toluene	0.19927	0.40518	0.12688	0.12167	0.11063	0.12074	0.11285	0.19440	0.35077	0.85016	0.01625	0.04816	0.10940	0.10486
3-ethyl-toluene	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
4-ethyl-toluene	0.02502	0.05284	0.01605	0.01584	0.01399	0.01531	0.01416	0.02539	0.04467	0.11103	0.00202	0.00619	0.01346	0.01368
Acetone	1.05861	2.23550	0.67893	0.67023	0.59191	0.64780	0.59899	1.07440	1.88969	4.69730	0.08550	0.26189	0.56954	0.57873
Acetophenone	0.24540	0.51823	0.15739	0.15537	0.13722	0.15017	0.13886	0.24907	0.43807	1.08892	0.01982	0.06071	0.13203	0.13416
methyl ethyl ketone	0.36089	0.76210	0.23145	0.22849	0.20179	0.22084	0.20420	0.36627	0.64421	1.60135	0.02915	0.08928	0.19416	0.19730
Xylene	0.11221	0.23698	0.07204	0.07111	0.06388	0.06980	0.06505	0.11381	0.20294	0.49765	0.00927	0.02795	0.06036	0.06139
o-xylene	0.04007	0.08435	0.02568	0.02529	0.02236	0.02447	0.02260	0.04053	0.07137	0.17722	0.00323	0.00989	0.02160	0.02183
Ethylene	0.41190	0.86981	0.26416	0.26078	0.23031	0.25205	0.23306	0.41804	0.73526	1.82768	0.03327	0.10190	0.22160	0.22518
1,1,1-trichloroethane (methyl chloroform)	0.00042	0.00022	0.00021	0.00008	0.00026	0.00026	0.00017	0.00017	0.00040	0.00040	0.00002	0.00002	0.00029	0.00008
Butane	0.18429	0.38918	0.11820	0.11668	0.10305	0.11278	0.10428	0.18704	0.32898	0.81776	0.01489	0.04559	0.09915	0.10075
2,2-dimethylbutane	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815
2,3-dimethylbutane	0.02743	0.05792	0.01759	0.01736	0.01534	0.01678	0.01552	0.02784	0.04896	0.12170	0.00222	0.00679	0.01476	0.01499
Isobutene	0.05486	0.11584	0.03518	0.03473	0.03067	0.03357	0.03104	0.05567	0.09792	0.24341	0.00443	0.01357	0.02951	0.02999
cis-2-butene	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
trans-2-butene	0.02502	0.05284	0.01605	0.01584	0.01399	0.01531	0.01416	0.02539	0.04467	0.11103	0.00202	0.00619	0.01346	0.01368
2-methyl-1-butene	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
3-methyl-1-butene	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
1,3-butadiene	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815
Cyclopentane	0.01973	0.04166	0.01265	0.01249	0.01103	0.01207	0.01116	0.02002	0.03522	0.08754	0.00159	0.00488	0.01061	0.01079
Methylcyclopentane	0.02983	0.06300	0.01913	0.01889	0.01668	0.01826	0.01688	0.03028	0.05325	0.13238	0.00241	0.00738	0.01605	0.01631
Pentane	0.08950	0.18900	0.05740	0.05666	0.05004	0.05477	0.05064	0.09084	0.15976	0.39714	0.00723	0.02214	0.04815	0.04893
Isopentane	0.13184	0.27842	0.08456	0.08347	0.07372	0.08068	0.07460	0.13381	0.23535	0.58503	0.01065	0.03262	0.07093	0.07208
2-methylpentane	0.04475	0.09450	0.02870	0.02833	0.02502	0.02738	0.02532	0.04542	0.07988	0.19857	0.00361	0.01107	0.02408	0.02446
3-methylpentane	0.03224	0.06808	0.02068	0.02041	0.01803	0.01973	0.01824	0.03272	0.05755	0.14305	0.00260	0.00798	0.01735	0.01763
2,3-dimethylpentane	0.03465	0.07316	0.02222	0.02193	0.01937	0.02120	0.01960	0.03516	0.06184	0.15373	0.00280	0.00857	0.01864	0.01894
2,4-dimethylpentane	0.01973	0.04166	0.01265	0.01249	0.01103	0.01207	0.01116	0.02002	0.03522	0.08754	0.00159	0.00488	0.01061	0.01079
2,2,4-trimethylpentane	0.05967	0.12600	0.03827	0.03778	0.03336	0.03651	0.03376	0.06056	0.10651	0.26476	0.00482	0.01476	0.03210	0.03262
2,3,4-trimethylpentane	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815
2-methyl-2-pentene	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
trans-2-pentene	0.00241	0.00508	0.00154	0.00152	0.00135	0.00147	0.00136	0.00244	0.00429	0.01068	0.00019	0.00060	0.00129	0.00132
Cyclohexane	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
Methylcyclohexane	0.02502	0.05284	0.01605	0.01584	0.01399	0.01531	0.01416	0.02539	0.04467	0.11103	0.00202	0.00619	0.01346	0.01368
Pentylcyclohexane	0.00404	0.00853	0.00259	0.00256	0.00226	0.00247	0.00228	0.00410	0.00721	0.01791	0.00033	0.00100	0.00217	0.00221
Dodecylcyclohexane	0.00081	0.00171	0.00052	0.00051	0.00045	0.00049	0.00046	0.00082	0.00144	0.00359	0.00007	0.00020	0.00043	0.00044

Table A-4 (DAR, Section 7, Appendix 7A, Table 7A2-7) Maximum 1-Hour VOC Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Tridecylcyclohexane	0.00079	0.00168	0.00051	0.00050	0.00044	0.00049	0.00045	0.00081	0.00142	0.00352	0.00006	0.00020	0.00043	0.00043
Tetradecylcyclohexane	0.00077	0.00162	0.00049	0.00048	0.00043	0.00047	0.00043	0.00078	0.00137	0.00339	0.00006	0.00019	0.00041	0.00042
Pentadecylcyclohexane	0.00062	0.00130	0.00040	0.00039	0.00034	0.00038	0.00035	0.00063	0.00110	0.00273	0.00005	0.00015	0.00033	0.00034
2-methylhexane	0.02743	0.05792	0.01759	0.01736	0.01534	0.01678	0.01552	0.02784	0.04896	0.12170	0.00222	0.00679	0.01476	0.01499
3-methylhexane	0.01492	0.03150	0.00957	0.00944	0.00834	0.00913	0.00844	0.01514	0.02663	0.06619	0.00120	0.00369	0.00803	0.00815
3-ethylhexane	0.01010	0.02134	0.00648	0.00640	0.00565	0.00618	0.00572	0.01026	0.01804	0.04484	0.00082	0.00250	0.00544	0.00552
2,3-dimethylhexane	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
2,4-dimethylhexane	0.00241	0.00508	0.00154	0.00152	0.00135	0.00147	0.00136	0.00244	0.00429	0.01068	0.00019	0.00060	0.00129	0.00132
2,5-dimethylhexane	0.00241	0.00508	0.00154	0.00152	0.00135	0.00147	0.00136	0.00244	0.00429	0.01068	0.00019	0.00060	0.00129	0.00132
cis-2-hexene	0.00481	0.01016	0.00309	0.00305	0.00269	0.00294	0.00272	0.00488	0.00859	0.02135	0.00039	0.00119	0.00259	0.00263
trans-2-hexene	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
Heptane	0.02262	0.04776	0.01450	0.01432	0.01265	0.01384	0.01280	0.02295	0.04037	0.10035	0.00183	0.00559	0.01217	0.01236
2-methylheptane	0.00481	0.01016	0.00309	0.00305	0.00269	0.00294	0.00272	0.00488	0.00859	0.02135	0.00039	0.00119	0.00259	0.00263
Octane	0.01251	0.02642	0.00802	0.00792	0.00700	0.00766	0.00708	0.01270	0.02233	0.05551	0.00101	0.00310	0.00673	0.00684
Nonane	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
Dodecane	0.02420	0.05111	0.01552	0.01532	0.01353	0.01481	0.01369	0.02456	0.04321	0.10740	0.00195	0.00599	0.01302	0.01323
Tridecane	0.02295	0.04847	0.01472	0.01453	0.01283	0.01405	0.01299	0.02329	0.04097	0.10185	0.00185	0.00568	0.01235	0.01255
Tetradecane	0.03027	0.06391	0.01941	0.01916	0.01692	0.01852	0.01713	0.03072	0.05403	0.13430	0.00244	0.00749	0.01628	0.01655
n-pentadecane	0.01915	0.04044	0.01228	0.01212	0.01071	0.01172	0.01084	0.01944	0.03419	0.08498	0.00155	0.00474	0.01030	0.01047
Hexadecane	0.03421	0.07225	0.02194	0.02166	0.01913	0.02094	0.01936	0.03472	0.06107	0.15181	0.00276	0.00846	0.01841	0.01870
n-heptadecane	0.02954	0.06239	0.01895	0.01871	0.01652	0.01808	0.01672	0.02999	0.05274	0.13110	0.00239	0.00731	0.01590	0.01615
n-octadecane	0.02892	0.06107	0.01855	0.01831	0.01617	0.01770	0.01636	0.02935	0.05162	0.12832	0.00234	0.00715	0.01556	0.01581
n-nonadecane	0.01978	0.04176	0.01268	0.01252	0.01106	0.01210	0.01119	0.02007	0.03530	0.08775	0.00160	0.00489	0.01064	0.01081
n-eicosane	0.00991	0.02093	0.00636	0.00628	0.00554	0.00607	0.00561	0.01006	0.01769	0.04398	0.00080	0.00245	0.00533	0.00542
n-heneicosane	0.00317	0.00669	0.00203	0.00200	0.00177	0.00194	0.00179	0.00321	0.00565	0.01405	0.00026	0.00078	0.00170	0.00173
Farnesane	0.02088	0.04410	0.01339	0.01322	0.01168	0.01278	0.01182	0.02119	0.03728	0.09266	0.00169	0.00517	0.01124	0.01142
Pristine	0.02132	0.04501	0.01367	0.01350	0.01192	0.01304	0.01206	0.02163	0.03805	0.09459	0.00172	0.00527	0.01147	0.01165
Aldehyde	6.23621	13.16924	3.99957	3.94831	3.48751	3.81670	3.52949	6.32920	11.13354	27.67144	0.50380	1.54287	3.35513	3.40932
Ketone	1.66825	3.52289	1.06991	1.05620	0.93279	1.02085	0.94393	1.69313	2.97794	7.40241	0.13474	0.41270	0.89753	0.91202
Trimethylbenzenes	0.05486	0.11584	0.03518	0.03473	0.03067	0.03357	0.03104	0.05567	0.09792	0.24341	0.00443	0.01357	0.02951	0.02999
Xylene	0.15228	0.32132	0.09772	0.09640	0.08624	0.09426	0.08765	0.15434	0.27432	0.67487	0.01251	0.03784	0.08196	0.08323
c_2-c_6 aliphatic	1.40884	2.97622	0.90470	0.89312	0.80202	0.87634	0.81945	1.42921	2.55160	6.24952	0.11676	0.35135	0.75760	0.77111
c_7-c_8 aliphatic	0.25888	0.54668	0.16603	0.16390	0.14475	0.15842	0.14648	0.26274	0.46212	1.14870	0.02091	0.06404	0.13928	0.14153
c_9-c_{10} aliphatic	0.00770	0.01626	0.00494	0.00487	0.00430	0.00471	0.00436	0.00781	0.01374	0.03416	0.00062	0.00190	0.00414	0.00421
c_{11}-c_{12} aliphatic	0.02896	0.06115	0.01857	0.01833	0.01619	0.01772	0.01638	0.02939	0.05169	0.12849	0.00234	0.00716	0.01558	0.01583
c_{13}-c_{16} aliphatic	0.16651	0.35162	0.10679	0.10542	0.09310	0.10189	0.09422	0.16899	0.29723	0.73884	0.01345	0.04119	0.08958	0.09103
c_{17}-c_{21} aliphatic	0.16513	0.34871	0.10590	0.10455	0.09233	0.10105	0.09343	0.16759	0.29477	0.73271	0.01334	0.04085	0.08884	0.09027
c_6-c_8 aromatic	0.35420	0.73223	0.22661	0.21998	0.20148	0.21974	0.20488	0.35123	0.63764	1.53617	0.02960	0.08725	0.19288	0.18970
c_9-c_{10} aromatic	0.03994	0.08434	0.02561	0.02529	0.02233	0.02444	0.02260	0.04053	0.07129	0.17722	0.00323	0.00988	0.02149	0.02183

C = carbon; µg/m^3 = micrograms per cubic metres.

Table A-4 (DAR, Section 7, Appendix 7A, Table 7A2-7) Maximum 1-Hour VOC Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.01508	0.02613	0.01268	0.02312	0.19207	0.40970	0.12132	0.10536	0.09128	0.13375	0.15476	7.25326
Acrolein	0.01285	0.02222	0.01079	0.01966	0.16326	0.34825	0.10312	0.08956	0.07760	0.11369	0.13159	6.16528
Benzaldehyde	0.01433	0.02482	0.01205	0.02197	0.18247	0.38921	0.11525	0.10009	0.08672	0.12706	0.14702	6.89059
2,5-dimethylbenzaldehyde	0.01546	0.02678	0.01300	0.02370	0.19688	0.41994	0.12435	0.10800	0.09357	0.13709	0.15863	7.43459
Butanal	0.00490	0.00849	0.00412	0.00752	0.06242	0.13315	0.03943	0.03424	0.02967	0.04347	0.05030	2.35731
Formaldehyde	0.08708	0.14891	0.07316	0.13201	1.12959	2.28644	0.73042	0.58754	0.53542	0.74707	0.86535	40.43792
Acetaldehyde	0.15769	0.27309	0.13257	0.24166	2.00717	4.28139	1.26780	1.10106	0.95395	1.39766	1.61738	75.79655
Propanal	0.05279	0.09145	0.04439	0.08093	0.67226	1.43395	0.42462	0.36877	0.31949	0.46811	0.54165	25.38639
Crotonaldehyde	0.05052	0.08754	0.04249	0.07746	0.64345	1.37250	0.40642	0.35297	0.30580	0.44805	0.51844	24.29841
Hexanal	0.00829	0.01437	0.00698	0.01272	0.10564	0.22534	0.06673	0.05795	0.05021	0.07356	0.08512	3.98929
Heptanal	0.01207	0.02090	0.01015	0.01850	0.15366	0.32776	0.09706	0.08429	0.07303	0.10700	0.12381	5.80260
Octanal	0.01169	0.02025	0.00983	0.01792	0.14886	0.31752	0.09402	0.08166	0.07075	0.10365	0.11994	5.62127
Nonanal	0.01659	0.02874	0.01395	0.02544	0.21128	0.45067	0.13345	0.11590	0.10041	0.14712	0.17023	7.97858
Decanal	0.01056	0.01829	0.00888	0.01619	0.13445	0.28679	0.08492	0.07375	0.06390	0.09362	0.10833	5.07728
Undecanal	0.00980	0.01698	0.00824	0.01503	0.12485	0.26631	0.07886	0.06849	0.05933	0.08693	0.10059	4.71462
Dodecanal	0.00452	0.00784	0.00381	0.00694	0.05762	0.12291	0.03640	0.03161	0.02739	0.04012	0.04643	2.17598
Tridecanal	0.00754	0.01306	0.00634	0.01156	0.09604	0.20485	0.06066	0.05268	0.04564	0.06687	0.07738	3.62663
1,2,4-trimethylbenzene	0.00332	0.00575	0.00279	0.00509	0.04226	0.09013	0.02669	0.02318	0.02008	0.02942	0.03405	1.59572
1,3,5-trimethylbenzene	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146
Benzene	0.01306	0.01879	0.01284	0.02013	0.14609	0.28152	0.08350	0.07259	0.07835	0.09206	0.11071	4.96930
Ethylbenzene	0.00179	0.00308	0.00150	0.00272	0.02268	0.04815	0.01437	0.01238	0.01078	0.01572	0.01819	0.85226
Propylbenzene	0.00038	0.00065	0.00032	0.00058	0.00480	0.01024	0.00303	0.00263	0.00228	0.00334	0.00387	0.18133
Indanone	0.00026	0.00045	0.00022	0.00040	0.00334	0.00712	0.00211	0.00183	0.00159	0.00232	0.00269	0.12603
Toluene	0.01652	0.02694	0.01457	0.02515	0.20216	0.40841	0.13096	0.10501	0.09621	0.13351	0.15612	7.21752
3-ethyl-toluene	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080
4-ethyl-toluene	0.00196	0.00340	0.00165	0.00301	0.02497	0.05326	0.01577	0.01370	0.01187	0.01739	0.02012	0.94292
Acetone	0.08295	0.14371	0.06976	0.12718	1.05641	2.25335	0.66726	0.57950	0.50206	0.73560	0.85117	39.89290
Acetophenone	0.01923	0.03332	0.01617	0.02948	0.24489	0.52237	0.15468	0.13434	0.11639	0.17053	0.19732	9.24790
methyl ethyl ketone	0.02828	0.04899	0.02378	0.04336	0.36014	0.76819	0.22748	0.19756	0.17116	0.25077	0.29017	13.59986
Xylene	0.00948	0.01544	0.00827	0.01446	0.11191	0.23887	0.07070	0.06148	0.05346	0.07802	0.09132	4.22523
o-xylene	0.00314	0.00543	0.00264	0.00481	0.04005	0.08502	0.02535	0.02186	0.01903	0.02776	0.03212	1.50505
Ethylene	0.03227	0.05592	0.02714	0.04948	0.41104	0.87676	0.25963	0.22548	0.19535	0.28622	0.33118	15.52197
1,1,1-trichloroethane (methyl chloroform)	0.00003	0.00003	0.00003	0.00003	0.00042	0.00029	0.00039	0.00008	0.00019	0.00006	0.00018	0.00018
Butane	0.01444	0.02502	0.01214	0.02214	0.18391	0.39229	0.11616	0.10088	0.08740	0.12806	0.14818	6.94499
2,2-dimethylbutane	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213
2,3-dimethylbutane	0.00215	0.00372	0.00181	0.00330	0.02737	0.05838	0.01729	0.01501	0.01301	0.01906	0.02205	1.03359
Isobutene	0.00430	0.00745	0.00361	0.00659	0.05474	0.11676	0.03458	0.03003	0.02602	0.03812	0.04411	2.06718
cis-2-butene	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146
trans-2-butene	0.00196	0.00340	0.00165	0.00301	0.02497	0.05326	0.01577	0.01370	0.01187	0.01739	0.02012	0.94292
2-methyl-1-butene	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146
3-methyl-1-butene	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013
1,3-butadiene	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213
Cyclopentane	0.00155	0.00268	0.00130	0.00237	0.01969	0.04199	0.01244	0.01080	0.00936	0.01371	0.01586	0.74346
Methylcyclopentane	0.00234	0.00405	0.00197	0.00358	0.02977	0.06350	0.01880	0.01633	0.01415	0.02073	0.02399	1.12425
Pentane	0.00701	0.01215	0.00590	0.01075	0.08931	0.19051	0.05641	0.04899	0.04245	0.06219	0.07196	3.37276
Isopentane	0.01033	0.01790	0.00869	0.01584	0.13157	0.28064	0.08310	0.07217	0.06253	0.09162	0.10601	4.96848
2-methylpentane	0.00351	0.00608	0.00295	0.00538	0.04466	0.09526	0.02821	0.02450	0.02122	0.03110	0.03598	1.68638
3-methylpentane	0.00253	0.00438	0.00212	0.00387	0.03217	0.06862	0.02032	0.01765	0.01529	0.02240	0.02592	1.21492
2,3-dimethylpentane	0.00271	0.00470	0.00228	0.00416	0.03457	0.07375	0.02184	0.01897	0.01643	0.02407	0.02786	1.30559
2,4-dimethylpentane	0.00155	0.00268	0.00130	0.00237	0.01969	0.04199	0.01244	0.01080	0.00936	0.01371	0.01586	0.74346
2,2,4-trimethylpentane	0.00468	0.00810	0.00393	0.00717	0.05954	0.12701	0.03761	0.03266	0.02830	0.04146	0.04798	2.24851
2,3,4-trimethylpentane	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213
2-methyl-2-pentene	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080
trans-2-pentene	0.00019	0.00033	0.00016	0.00029	0.00240	0.00512	0.00152	0.00132	0.00114	0.00167	0.00193	0.09067
Cyclohexane	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080
Methylcyclohexane	0.00196	0.00340	0.00165	0.00301	0.02497	0.05326	0.01577	0.01370	0.01187	0.01739	0.02012	0.94292
Pentylcyclohexane	0.00032	0.00055	0.00027	0.00049	0.00403	0.00859	0.00254	0.00221	0.00191	0.00281	0.00325	0.15214
Dodecylcyclohexane	0.00006	0.00011	0.00005	0.00010	0.00081	0.00172	0.00051	0.00044	0.00038	0.00056	0.00065	0.03046
Tridecylcyclohexane	0.00006	0.00011	0.00005	0.00010	0.00079	0.00169	0.00050	0.00043	0.00038	0.00055	0.00064	0.02992
Tetradecylcyclohexane	0.00006	0.00010	0.00005	0.00009	0.00076	0.00163	0.00048	0.00042	0.00036	0.00053	0.00062	0.02883

Table A-4 (DAR, Section 7, Appendix 7A, Table 7A2-7) Maximum 1-Hour VOC Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Pentadecylcyclohexane	0.00005	0.00008	0.00004	0.00007	0.00061	0.00131	0.00039	0.00034	0.00029	0.00043	0.00050	0.02321
2-methylhexane	0.00215	0.00372	0.00181	0.00330	0.02737	0.05838	0.01729	0.01501	0.01301	0.01906	0.02205	1.03359
3-methylhexane	0.00117	0.00203	0.00098	0.00179	0.01489	0.03175	0.00940	0.00817	0.00707	0.01037	0.01199	0.56213
3-ethylhexane	0.00079	0.00137	0.00067	0.00121	0.01008	0.02151	0.00637	0.00553	0.00479	0.00702	0.00812	0.38080
2,3-dimethylhexane	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013
2,4-dimethylhexane	0.00019	0.00033	0.00016	0.00029	0.00240	0.00512	0.00152	0.00132	0.00114	0.00167	0.00193	0.09067
2,5-dimethylhexane	0.00019	0.00033	0.00016	0.00029	0.00240	0.00512	0.00152	0.00132	0.00114	0.00167	0.00193	0.09067
cis-2-hexene	0.00038	0.00065	0.00032	0.00058	0.00480	0.01024	0.00303	0.00263	0.00228	0.00334	0.00387	0.18133
trans-2-hexene	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013
Heptane	0.00177	0.00307	0.00149	0.00272	0.02257	0.04814	0.01426	0.01238	0.01073	0.01572	0.01818	0.85226
2-methylheptane	0.00038	0.00065	0.00032	0.00058	0.00480	0.01024	0.00303	0.00263	0.00228	0.00334	0.00387	0.18133
Octane	0.00098	0.00170	0.00082	0.00150	0.01248	0.02663	0.00789	0.00685	0.00593	0.00869	0.01006	0.47146
Nonane	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013
Dodecane	0.00190	0.00329	0.00160	0.00291	0.02415	0.05152	0.01526	0.01325	0.01148	0.01682	0.01946	0.91210
Tridecane	0.00180	0.00312	0.00151	0.00276	0.02290	0.04886	0.01447	0.01256	0.01089	0.01595	0.01845	0.86495
Tetradecane	0.00237	0.00411	0.00199	0.00364	0.03020	0.06443	0.01908	0.01657	0.01435	0.02103	0.02434	1.14057
n-pentadecane	0.00150	0.00260	0.00126	0.00230	0.01911	0.04077	0.01207	0.01048	0.00908	0.01331	0.01540	0.72170
Hexadecane	0.00268	0.00464	0.00225	0.00411	0.03414	0.07282	0.02156	0.01873	0.01623	0.02377	0.02751	1.28927
n-heptadecane	0.00232	0.00401	0.00195	0.00355	0.02948	0.06289	0.01862	0.01617	0.01401	0.02053	0.02376	1.11337
n-octadecane	0.00227	0.00393	0.00191	0.00347	0.02886	0.06156	0.01823	0.01583	0.01372	0.02010	0.02325	1.08980
n-nonadecane	0.00155	0.00268	0.00130	0.00238	0.01974	0.04210	0.01247	0.01083	0.00938	0.01374	0.01590	0.74527
n-eicosane	0.00078	0.00135	0.00065	0.00119	0.00989	0.02110	0.00625	0.00543	0.00470	0.00689	0.00797	0.37354
n-heneicosane	0.00025	0.00043	0.00021	0.00038	0.00316	0.00674	0.00200	0.00173	0.00150	0.00220	0.00255	0.11932
Farnesane	0.00164	0.00284	0.00138	0.00251	0.02084	0.04445	0.01316	0.01143	0.00990	0.01451	0.01679	0.78698
Pristine	0.00167	0.00289	0.00140	0.00256	0.02127	0.04537	0.01344	0.01167	0.01011	0.01481	0.01714	0.80330
Aldehyde	0.48903	0.84673	0.41106	0.74930	6.22319	13.27440	3.93078	3.41382	2.95776	4.33342	5.01485	235.00560
Ketone	0.13072	0.22648	0.10994	0.20042	1.66478	3.55102	1.05153	0.91322	0.79119	1.15922	1.34135	62.86669
Trimethylbenzenes	0.00430	0.00745	0.00361	0.00659	0.05474	0.11676	0.03458	0.03003	0.02602	0.03812	0.04411	2.06718
Xylene	0.01262	0.02088	0.01084	0.01924	0.15193	0.32389	0.09605	0.08334	0.07249	0.10577	0.12344	5.73029
c_2-c_6 aliphatic	0.11988	0.19418	0.10575	0.18352	1.40502	2.99999	0.88747	0.77220	0.67177	0.97987	1.14882	53.06038
c_7-c_8 aliphatic	0.02028	0.03514	0.01706	0.03110	0.25834	0.55105	0.16318	0.14171	0.12278	0.17989	0.20815	9.75563
c_9-c_{10} aliphatic	0.00060	0.00105	0.00051	0.00092	0.00768	0.01639	0.00485	0.00421	0.00365	0.00535	0.00619	0.29013
c_{11}-c_{12} aliphatic	0.00227	0.00393	0.00191	0.00348	0.02890	0.06164	0.01825	0.01585	0.01373	0.02012	0.02328	1.09125
c_{13}-c_{16} aliphatic	0.01305	0.02261	0.01097	0.02000	0.16616	0.35443	0.10495	0.09115	0.07897	0.11570	0.13388	6.27479
c_{17}-c_{21} aliphatic	0.01294	0.02242	0.01088	0.01984	0.16478	0.35149	0.10408	0.09039	0.07831	0.11474	0.13277	6.22275
c_6-c_8 aromatic	0.03137	0.04881	0.02887	0.04798	0.35679	0.73808	0.22883	0.18997	0.17082	0.24128	0.28502	13.03908
c_9-c_{10} aromatic	0.00313	0.00542	0.00263	0.00480	0.03986	0.08501	0.02517	0.02186	0.01894	0.02775	0.03211	1.50505

C = carbon; µg/m^3 = micrograms per cubic metres.

Table A-5 (DAR, Section 7, Appendix 7A, Table 7A2-8) Maximum 24-Hour VOC Predictions at Selected Locations Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.02729	1.72078	0.02518	1.02053	0.06052	0.10422	0.00246	0.00476	0.84348	0.85576	0.12465	0.12489	0.10572	0.20792
Acrolein	0.02321	1.46267	0.02141	0.86747	0.05145	0.08859	0.00210	0.00405	0.71703	0.72747	0.10599	0.10620	0.08987	0.17674
Benzaldehyde	0.02593	1.63474	0.02392	0.96951	0.05749	0.09901	0.00234	0.00452	0.80131	0.81297	0.11841	0.11864	0.10043	0.19753
2,5-dimethylbenzaldehyde	0.02797	1.76380	0.02581	1.04605	0.06203	0.10683	0.00253	0.00488	0.86457	0.87715	0.12776	0.12801	0.10836	0.21312
Butanal	0.00887	0.55925	0.00818	0.33167	0.01967	0.03387	0.00080	0.00155	0.27413	0.27812	0.04051	0.04059	0.03436	0.06758
Formaldehyde	0.15311	9.59460	0.14118	5.69021	0.34620	0.58142	0.01433	0.02713	4.72265	4.79087	0.71494	0.71627	0.60120	1.15960
Acetaldehyde	0.28524	17.98219	0.26316	10.66460	0.63245	1.08915	0.02577	0.04977	8.81462	8.94291	1.30269	1.30521	1.10479	2.17282
Propanal	0.09552	6.02274	0.08813	3.57186	0.21182	0.36478	0.00862	0.01666	2.95218	2.99515	0.43626	0.43710	0.37002	0.72773
Crotonaldehyde	0.09143	5.76462	0.08435	3.41878	0.20274	0.34915	0.00825	0.01595	2.82566	2.86679	0.41756	0.41837	0.35416	0.69655
Hexanal	0.01501	0.94643	0.01385	0.56129	0.03329	0.05732	0.00136	0.00262	0.46391	0.47067	0.06856	0.06869	0.05815	0.11436
Heptanal	0.02183	1.37663	0.02014	0.81643	0.04842	0.08338	0.00197	0.00381	0.67478	0.68461	0.09972	0.09991	0.08458	0.16634
Octanal	0.02115	1.33361	0.01951	0.79091	0.04690	0.08077	0.00191	0.00369	0.65370	0.66321	0.09660	0.09679	0.08193	0.16114
Nonanal	0.03002	1.89286	0.02770	1.12259	0.06657	0.11465	0.00271	0.00524	0.92783	0.94133	0.13711	0.13738	0.11629	0.22872
Decanal	0.01910	1.20455	0.01763	0.71437	0.04236	0.07296	0.00172	0.00333	0.59044	0.59903	0.08725	0.08742	0.07400	0.14555
Undecanal	0.01774	1.11851	0.01637	0.66335	0.03934	0.06775	0.00160	0.00309	0.54826	0.55624	0.08102	0.08118	0.06872	0.13515
Dodecanal	0.00819	0.51623	0.00755	0.30616	0.01816	0.03127	0.00074	0.00143	0.25304	0.25673	0.03739	0.03747	0.03172	0.06238
Tridecanal	0.01365	0.86039	0.01259	0.51027	0.03026	0.05211	0.00123	0.00238	0.42174	0.42788	0.06232	0.06244	0.05286	0.10396
1,2,4-trimethylbenzene	0.00600	0.37857	0.00554	0.22452	0.01331	0.02293	0.00054	0.00105	0.18557	0.18827	0.02742	0.02748	0.02326	0.04574
1,3,5-trimethylbenzene	0.00177	0.11185	0.00164	0.06633	0.00393	0.00677	0.00016	0.00031	0.05483	0.05562	0.00810	0.00812	0.00687	0.01352
Benzene	0.01985	1.17950	0.01849	0.70031	0.04218	0.07151	0.00237	0.00395	0.58571	0.59412	0.08979	0.08995	0.07289	0.14283
Ethylbenzene	0.00321	0.20220	0.00296	0.11992	0.00720	0.01225	0.00029	0.00056	0.09922	0.10066	0.01470	0.01473	0.01247	0.02445
Propylbenzene	0.00068	0.04302	0.00063	0.02551	0.00151	0.00261	0.00006	0.00012	0.02109	0.02139	0.00312	0.00312	0.00264	0.00520
Indanone	0.00047	0.02990	0.00044	0.01773	0.00105	0.00181	0.00004	0.00008	0.01466	0.01487	0.00217	0.00217	0.00184	0.00361
Toluene	0.02775	1.71277	0.02565	1.01601	0.06288	0.10382	0.00281	0.00509	0.84658	0.85875	0.12944	0.12968	0.10777	0.20733
3-ethyl-toluene	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
4-ethyl-toluene	0.00355	0.22370	0.00327	0.13267	0.00787	0.01355	0.00032	0.00062	0.10965	0.11125	0.01620	0.01624	0.01374	0.02703
Acetone	0.15011	9.46430	0.13848	5.61293	0.33286	0.57323	0.01355	0.02618	4.63915	4.70667	0.68555	0.68688	0.58146	1.14358
Acetophenone	0.03480	2.19400	0.03210	1.30118	0.07716	0.13289	0.00314	0.00607	1.07544	1.09109	0.15892	0.15923	0.13479	0.26510
methyl ethyl ketone	0.05117	3.22647	0.04721	1.91350	0.11348	0.19542	0.00462	0.00893	1.58153	1.60455	0.23371	0.23416	0.19823	0.38986
Xylene	0.01619	1.00256	0.01498	0.59477	0.03558	0.06074	0.00161	0.00294	0.49344	0.50059	0.07371	0.07385	0.06173	0.12126
o-xylene	0.00567	0.35707	0.00523	0.21176	0.01259	0.02163	0.00051	0.00099	0.17509	0.17763	0.02593	0.02598	0.02198	0.04315
Ethylene	0.05841	3.68247	0.05388	2.18394	0.12951	0.22304	0.00527	0.01019	1.80505	1.83132	0.26674	0.26726	0.22624	0.44496
1,1,1-trichloroethane (methyl chloroform)	0.00002	0.00002	0.00003	0.00003	0.00008	0.00004	0.00000	0.00000	0.00034	0.00034	0.00014	0.00014	0.00010	0.00002
Butane	0.02613	1.64765	0.02411	0.97716	0.05795	0.09979	0.00236	0.00456	0.80763	0.81939	0.11935	0.11958	0.10123	0.19909
2,2-dimethylbutane	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611
2,3-dimethylbutane	0.00389	0.24521	0.00359	0.14543	0.00862	0.01485	0.00035	0.00068	0.12020	0.12195	0.01776	0.01780	0.01507	0.02963
Isobutene	0.00778	0.49042	0.00718	0.29085	0.01725	0.02970	0.00070	0.00136	0.24039	0.24389	0.03552	0.03559	0.03013	0.05926
cis-2-butene	0.00177	0.11185	0.00164	0.06633	0.00393	0.00677	0.00016	0.00031	0.05483	0.05562	0.00810	0.00812	0.00687	0.01352
trans-2-butene	0.00355	0.22370	0.00327	0.13267	0.00787	0.01355	0.00032	0.00062	0.10965	0.11125	0.01620	0.01624	0.01374	0.02703
2-methyl-1-butene	0.00177	0.11185	0.00164	0.06633	0.00393	0.00677	0.00016	0.00031	0.05483	0.05562	0.00810	0.00812	0.00687	0.01352
3-methyl-1-butene	0.00109	0.06883	0.00101	0.04082	0.00242	0.00417	0.00010	0.00019	0.03374	0.03423	0.00499	0.00500	0.00423	0.00832
1,3-butadiene	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611
Cyclopentane	0.00280	0.17638	0.00258	0.10460	0.00620	0.01068	0.00025	0.00049	0.08646	0.08772	0.01278	0.01280	0.01084	0.02131
Methylcyclopentane	0.00423	0.26672	0.00390	0.15818	0.00938	0.01615	0.00038	0.00074	0.13074	0.13264	0.01932	0.01936	0.01639	0.03223
Pentane	0.01269	0.80016	0.01171	0.47455	0.02814	0.04846	0.00115	0.00221	0.39222	0.39793	0.05796	0.05807	0.04916	0.09668
Isopentane	0.01870	1.17874	0.01725	0.69906	0.04146	0.07139	0.00169	0.00326	0.57778	0.58619	0.08538	0.08555	0.07242	0.14243
2-methylpentane	0.00635	0.40008	0.00585	0.23727	0.01407	0.02423	0.00057	0.00111	0.19611	0.19896	0.02898	0.02904	0.02458	0.04834
3-methylpentane	0.00457	0.28823	0.00422	0.17094	0.01014	0.01746	0.00041	0.00080	0.14128	0.14334	0.02088	0.02092	0.01771	0.03483
2,3-dimethylpentane	0.00491	0.30974	0.00453	0.18370	0.01089	0.01876	0.00044	0.00086	0.15183	0.15404	0.02244	0.02248	0.01903	0.03743
2,4-dimethylpentane	0.00280	0.17638	0.00258	0.10460	0.00620	0.01068	0.00025	0.00049	0.08646	0.08772	0.01278	0.01280	0.01084	0.02131
2,2,4-trimethylpentane	0.00846	0.53344	0.00781	0.31637	0.01876	0.03231	0.00076	0.00148	0.26148	0.26528	0.03864	0.03871	0.03277	0.06446
2,3,4-trimethylpentane	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611
2-methyl-2-pentene	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
trans-2-pentene	0.00034	0.02151	0.00031	0.01276	0.00076	0.00130	0.00003	0.00006	0.01054	0.01070	0.00156	0.00156	0.00132	0.00260
Cyclohexane	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
Methylcyclohexane	0.00355	0.22370	0.00327	0.13267	0.00787	0.01355	0.00032	0.00062	0.10965	0.11125	0.01620	0.01624	0.01374	0.02703
Pentylcyclohexane	0.00057	0.03609	0.00053	0.02141	0.00127	0.00219	0.00005	0.00010	0.01769	0.01795	0.00261	0.00262	0.00222	0.00436
Dodecylcyclohexane	0.00011	0.00723	0.00011	0.00429	0.00025	0.00044	0.00001	0.00002	0.00354	0.00359	0.00052	0.00052	0.00044	0.00087
Tridecylcyclohexane	0.00011	0.00710	0.00010	0.00421	0.00025	0.00043	0.00001	0.00002	0.00348	0.00353	0.00051	0.00052	0.00044	0.00086

Table A-5 (DAR, Section 7, Appendix 7A, Table 7A2-8) Maximum 24-Hour VOC Predictions at Selected Locations Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
Tetradecylcyclohexane	0.00011	0.00684	0.00010	0.00406	0.00024	0.00041	0.00001	0.00002	0.00335	0.00340	0.00050	0.00050	0.00042	0.00083
Pentadecylcyclohexane	0.00009	0.00551	0.00008	0.00327	0.00019	0.00033	0.00001	0.00002	0.00270	0.00274	0.00040	0.00040	0.00034	0.00067
2-methylhexane	0.00389	0.24521	0.00359	0.14543	0.00862	0.01485	0.00035	0.00068	0.12020	0.12195	0.01776	0.01780	0.01507	0.02963
3-methylhexane	0.00212	0.13336	0.00195	0.07909	0.00469	0.00808	0.00019	0.00037	0.06537	0.06632	0.00966	0.00968	0.00819	0.01611
3-ethylhexane	0.00143	0.09034	0.00132	0.05358	0.00318	0.00547	0.00013	0.00025	0.04428	0.04493	0.00654	0.00656	0.00555	0.01092
2,3-dimethylhexane	0.00109	0.06883	0.00101	0.04082	0.00242	0.00417	0.00010	0.00019	0.03374	0.03423	0.00499	0.00500	0.00423	0.00832
2,4-dimethylhexane	0.00034	0.02151	0.00031	0.01276	0.00076	0.00130	0.00003	0.00006	0.01054	0.01070	0.00156	0.00156	0.00132	0.00260
2,5-dimethylhexane	0.00034	0.02151	0.00031	0.01276	0.00076	0.00130	0.00003	0.00006	0.01054	0.01070	0.00156	0.00156	0.00132	0.00260
cis-2-hexene	0.00068	0.04302	0.00063	0.02551	0.00151	0.00261	0.00006	0.00012	0.02109	0.02139	0.00312	0.00312	0.00264	0.00520
trans-2-hexene	0.00109	0.06883	0.00101	0.04082	0.00242	0.00417	0.00010	0.00019	0.03374	0.03423	0.00499	0.00500	0.00423	0.00832
Heptane	0.00321	0.20219	0.00296	0.11991	0.00711	0.01225	0.00029	0.00056	0.09911	0.10055	0.01465	0.01467	0.01242	0.02443
2-methylheptane	0.00068	0.04302	0.00063	0.02551	0.00151	0.00261	0.00006	0.00012	0.02109	0.02139	0.00312	0.00312	0.00264	0.00520
Octane	0.00177	0.11185	0.00164	0.06633	0.00393	0.00677	0.00016	0.00031	0.05483	0.05562	0.00810	0.00812	0.00687	0.01352
nonane	0.00109	0.06883	0.00101	0.04082	0.00242	0.00417	0.00010	0.00019	0.03374	0.03423	0.00499	0.00500	0.00423	0.00832
dodecane	0.00343	0.21639	0.00317	0.12833	0.00761	0.01311	0.00031	0.00060	0.10607	0.10761	0.01567	0.01570	0.01329	0.02615
tridecane	0.00325	0.20520	0.00300	0.12170	0.00722	0.01243	0.00029	0.00057	0.10059	0.10205	0.01486	0.01489	0.01261	0.02479
tetradecane	0.00429	0.27059	0.00396	0.16048	0.00952	0.01639	0.00039	0.00075	0.13264	0.13457	0.01960	0.01964	0.01662	0.03270
n-pentadecane	0.00272	0.17122	0.00251	0.10154	0.00602	0.01037	0.00025	0.00047	0.08393	0.08515	0.01240	0.01243	0.01052	0.02069
hexadecane	0.00485	0.30587	0.00448	0.18140	0.01076	0.01853	0.00044	0.00085	0.14993	0.15211	0.02216	0.02220	0.01879	0.03696
n-heptadecane	0.00419	0.26414	0.00386	0.15665	0.00929	0.01600	0.00038	0.00073	0.12947	0.13136	0.01913	0.01917	0.01623	0.03192
n-octadecane	0.00410	0.25855	0.00378	0.15334	0.00909	0.01566	0.00037	0.00072	0.12673	0.12858	0.01873	0.01876	0.01588	0.03124
n-nonadecane	0.00280	0.17681	0.00259	0.10486	0.00622	0.01071	0.00025	0.00049	0.08667	0.08793	0.01281	0.01283	0.01086	0.02136
n-eicosane	0.00141	0.08862	0.00130	0.05256	0.00312	0.00537	0.00013	0.00025	0.04344	0.04407	0.00642	0.00643	0.00544	0.01071
n-heneicosane	0.00045	0.02831	0.00041	0.01679	0.00100	0.00171	0.00004	0.00008	0.01388	0.01408	0.00205	0.00205	0.00174	0.00342
farnesane	0.00296	0.18670	0.00273	0.11073	0.00657	0.01131	0.00027	0.00052	0.09152	0.09285	0.01352	0.01355	0.01147	0.02256
pristine	0.00302	0.19058	0.00279	0.11302	0.00670	0.01154	0.00027	0.00053	0.09342	0.09478	0.01380	0.01383	0.01171	0.02303
aldehyde	0.88443	55.75343	0.81598	33.06543	1.96091	3.37688	0.07992	0.15433	27.32985	27.72763	4.03914	4.04695	3.42539	6.73678
ketone	0.23655	14.91466	0.21824	8.84534	0.52456	0.90335	0.02135	0.04126	7.31077	7.41717	1.08036	1.08244	0.91632	1.80216
trimethylbenzenes	0.00778	0.49042	0.00718	0.29085	0.01725	0.02970	0.00070	0.00136	0.24039	0.24389	0.03552	0.03559	0.03013	0.05926
xylene	0.02185	1.35963	0.02021	0.80654	0.04816	0.08237	0.00212	0.00393	0.66852	0.67822	0.09964	0.09983	0.08370	0.16441
c_2-c_6 aliphatic	0.20372	12.59007	0.18862	7.46963	0.44364	0.76278	0.02046	0.03726	6.19655	6.28635	0.92683	0.92859	0.77434	1.52196
c_7-c_8 aliphatic	0.03671	2.31445	0.03387	1.37262	0.08140	0.14018	0.00331	0.00640	1.13448	1.15099	0.16765	0.16797	0.14219	0.27966
c_9-c_{10} aliphatic	0.00109	0.06883	0.00101	0.04082	0.00242	0.00417	0.00010	0.00019	0.03374	0.03423	0.00499	0.00500	0.00423	0.00832
c_{11}-c_{12} aliphatic	0.00411	0.25889	0.00379	0.15354	0.00911	0.01568	0.00037	0.00072	0.12690	0.12875	0.01875	0.01879	0.01591	0.03128
c_{13}-c_{16} aliphatic	0.02361	1.48865	0.02178	0.88286	0.05236	0.09016	0.00213	0.00412	0.72970	0.74032	0.10783	0.10804	0.09146	0.17988
c_{17}-c_{21} aliphatic	0.02341	1.47630	0.02160	0.87554	0.05192	0.08942	0.00211	0.00408	0.72364	0.73418	0.10694	0.10714	0.09070	0.17838
c_6-c_8 aromatic	0.05080	3.09448	0.04710	1.83624	0.11226	0.18757	0.00547	0.00960	1.53151	1.55354	0.23393	0.23436	0.19313	0.37461
c_9-c_{10} aromatic	0.00566	0.35706	0.00522	0.21176	0.01256	0.02163	0.00051	0.00099	0.17502	0.17757	0.02586	0.02591	0.02194	0.04314

C = carbon; µg/m³ = micrograms per cubic metres.

Table A-5 (DAR, Section 7, Appendix 7A, Table 7A2-8) Maximum 24-Hour VOC Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.13784	0.27344	0.04651	0.06613	0.07165	0.07461	0.02444	0.13547	0.12422	0.25531	0.00259	0.00999	0.03829	0.03313
acrolein	0.11716	0.23243	0.03953	0.05621	0.06094	0.06345	0.02080	0.11515	0.10561	0.21703	0.00220	0.00850	0.03255	0.02816
benzaldehyde	0.13094	0.25977	0.04418	0.06282	0.06807	0.07088	0.02322	0.12870	0.11800	0.24254	0.00246	0.00949	0.03637	0.03147
2,5-dimethylbenzaldehyde	0.14128	0.28028	0.04767	0.06778	0.07344	0.07648	0.02505	0.13886	0.12732	0.26169	0.00265	0.01024	0.03924	0.03396
butanal	0.04480	0.08887	0.01511	0.02149	0.02329	0.02425	0.00794	0.04403	0.04037	0.08298	0.00084	0.00325	0.01244	0.01077
formaldehyde	0.78900	1.52489	0.26535	0.36944	0.41076	0.42692	0.13887	0.75593	0.69739	1.42570	0.01476	0.05625	0.21877	0.18581
acetaldehyde	1.44040	2.85747	0.48599	0.69107	0.74884	0.77980	0.25546	1.41566	1.29813	2.66802	0.02706	0.10444	0.40011	0.34619
propanal	0.48243	0.95704	0.16277	0.23146	0.25077	0.26114	0.08553	0.47414	0.43475	0.89358	0.00906	0.03498	0.13400	0.11595
crotonaldehyde	0.46175	0.91603	0.15579	0.22154	0.24003	0.24995	0.08187	0.45382	0.41612	0.85528	0.00867	0.03348	0.12826	0.11098
hexanal	0.07581	0.15039	0.02558	0.03637	0.03941	0.04104	0.01344	0.07451	0.06832	0.14042	0.00142	0.00550	0.02106	0.01822
heptanal	0.11027	0.21875	0.03720	0.05290	0.05732	0.05969	0.01955	0.10837	0.09937	0.20425	0.00207	0.00800	0.03063	0.02650
octanal	0.10682	0.21192	0.03604	0.05125	0.05553	0.05782	0.01894	0.10499	0.09627	0.19786	0.00201	0.00775	0.02967	0.02567
nonanal	0.15162	0.30079	0.05116	0.07274	0.07881	0.08207	0.02688	0.14902	0.13664	0.28084	0.00285	0.01099	0.04212	0.03644
decanal	0.09649	0.19141	0.03255	0.04629	0.05015	0.05223	0.01711	0.09483	0.08695	0.17872	0.00181	0.00700	0.02680	0.02319
undecanal	0.08959	0.17774	0.03023	0.04298	0.04657	0.04850	0.01588	0.08805	0.08074	0.16595	0.00168	0.00650	0.02489	0.02153
dodecanal	0.04135	0.08203	0.01395	0.01984	0.02149	0.02238	0.00733	0.04064	0.03726	0.07659	0.00078	0.00300	0.01149	0.00994
tridecanal	0.06892	0.13672	0.02325	0.03307	0.03582	0.03731	0.01222	0.06773	0.06211	0.12765	0.00129	0.00500	0.01914	0.01656
1,2,4-trimethylbenzene	0.03032	0.06016	0.01023	0.01455	0.01576	0.01641	0.00538	0.02980	0.02733	0.05617	0.00057	0.00220	0.00842	0.00729
1,3,5-trimethylbenzene	0.00896	0.01777	0.00302	0.00430	0.00466	0.00485	0.00159	0.00881	0.00807	0.01660	0.00017	0.00065	0.00249	0.00215
benzene	0.09495	0.18771	0.03239	0.04579	0.05263	0.05465	0.01925	0.09307	0.08774	0.17627	0.00188	0.00696	0.02656	0.02571
ethylbenzene	0.01626	0.03215	0.00550	0.00780	0.00846	0.00881	0.00288	0.01593	0.01461	0.03001	0.00031	0.00118	0.00452	0.00391
propylbenzene	0.00345	0.00684	0.00116	0.00165	0.00179	0.00187	0.00061	0.00339	0.00311	0.00638	0.00006	0.00025	0.00096	0.00083
indanone	0.00239	0.00475	0.00081	0.00115	0.00124	0.00130	0.00042	0.00235	0.00216	0.00444	0.00004	0.00017	0.00067	0.00058
toluene	0.14141	0.27256	0.04788	0.06640	0.07487	0.07775	0.02572	0.13510	0.12548	0.25500	0.00269	0.01009	0.03937	0.03431
3-ethyl-toluene	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
4-ethyl-toluene	0.01792	0.03555	0.00605	0.00860	0.00931	0.00970	0.00318	0.01761	0.01615	0.03319	0.00034	0.00130	0.00498	0.00431
acetone	0.75810	1.50393	0.25578	0.36372	0.39407	0.41036	0.13441	0.74508	0.68318	1.40420	0.01424	0.05497	0.21058	0.18220
acetophenone	0.17574	0.34864	0.05929	0.08432	0.09135	0.09513	0.03116	0.17272	0.15837	0.32552	0.00330	0.01274	0.04882	0.04224
methyl ethyl ketone	0.25844	0.51270	0.08720	0.12399	0.13434	0.13990	0.04582	0.25400	0.23290	0.47870	0.00485	0.01874	0.07179	0.06211
xylene	0.08044	0.15943	0.02727	0.03870	0.04265	0.04438	0.01487	0.07900	0.07302	0.14907	0.00154	0.00585	0.02241	0.01996
o-xylene	0.02867	0.05674	0.00967	0.01372	0.01490	0.01552	0.00508	0.02811	0.02579	0.05298	0.00054	0.00208	0.00796	0.00687
ethylene	0.29497	0.58516	0.09952	0.14152	0.15333	0.15967	0.05230	0.28990	0.26582	0.54636	0.00554	0.02139	0.08193	0.07089
1,1,1-trichloroethane (methyl chloroform)	0.00015	0.00006	0.00004	0.00002	0.00008	0.00008	0.00003	0.00003	0.00006	0.00006	0.00000	0.00000	0.00008	0.00002
butane	0.13198	0.26182	0.04453	0.06332	0.06860	0.07144	0.02340	0.12971	0.11894	0.24446	0.00248	0.00957	0.03666	0.03172
2,2-dimethylbutane	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257
2,3-dimethylbutane	0.01964	0.03897	0.00663	0.00942	0.01021	0.01063	0.00348	0.01930	0.01770	0.03638	0.00037	0.00142	0.00546	0.00472
isobutene	0.03928	0.07793	0.01325	0.01885	0.02042	0.02126	0.00696	0.03861	0.03540	0.07276	0.00074	0.00285	0.01091	0.00944
cis-2-butene	0.00896	0.01777	0.00302	0.00430	0.00466	0.00485	0.00159	0.00881	0.00807	0.01660	0.00017	0.00065	0.00249	0.00215
trans-2-butene	0.01792	0.03555	0.00605	0.00860	0.00931	0.00970	0.00318	0.01761	0.01615	0.03319	0.00034	0.00130	0.00498	0.00431
2-methyl-1-butene	0.00896	0.01777	0.00302	0.00430	0.00466	0.00485	0.00159	0.00881	0.00807	0.01660	0.00017	0.00065	0.00249	0.00215
3-methyl-1-butene	0.00551	0.01094	0.00186	0.00265	0.00287	0.00298	0.00098	0.00542	0.00497	0.01021	0.00010	0.00040	0.00153	0.00133
1,3-butadiene	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257
cyclopentane	0.01413	0.02803	0.00477	0.00678	0.00734	0.00765	0.00250	0.01389	0.01273	0.02617	0.00027	0.00102	0.00392	0.00340
methylcyclopentane	0.02136	0.04238	0.00721	0.01025	0.01111	0.01156	0.00379	0.02100	0.01925	0.03957	0.00040	0.00155	0.00593	0.00513
pentane	0.06409	0.12715	0.02162	0.03075	0.03332	0.03469	0.01136	0.06299	0.05776	0.11872	0.00120	0.00465	0.01780	0.01540
isopentane	0.09442	0.18731	0.03186	0.04530	0.04908	0.05111	0.01674	0.09280	0.08509	0.17489	0.00177	0.00685	0.02623	0.02269
2-methylpentane	0.03205	0.06358	0.01081	0.01538	0.01666	0.01735	0.00568	0.03150	0.02888	0.05936	0.00060	0.00232	0.00890	0.00770
3-methylpentane	0.02309	0.04580	0.00779	0.01108	0.01200	0.01250	0.00409	0.02269	0.02081	0.04276	0.00043	0.00167	0.00641	0.00555
2,3-dimethylpentane	0.02481	0.04922	0.00837	0.01190	0.01290	0.01343	0.00440	0.02438	0.02236	0.04596	0.00047	0.00180	0.00689	0.00596
2,4-dimethylpentane	0.01413	0.02803	0.00477	0.00678	0.00734	0.00765	0.00250	0.01389	0.01273	0.02617	0.00027	0.00102	0.00392	0.00340
2,2,4-trimethylpentane	0.04273	0.08477	0.01442	0.02050	0.02221	0.02313	0.00758	0.04200	0.03851	0.07915	0.00080	0.00310	0.01187	0.01027
2,3,4-trimethylpentane	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257
2-methyl-2-pentene	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
trans-2-pentene	0.00172	0.00342	0.00058	0.00083	0.00090	0.00093	0.00031	0.00169	0.00155	0.00319	0.00003	0.00012	0.00048	0.00041
cyclohexane	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
methylcyclohexane	0.01792	0.03555	0.00605	0.00860	0.00931	0.00970	0.00318	0.01761	0.01615	0.03319	0.00034	0.00130	0.00498	0.00431
pentylcyclohexane	0.00289	0.00574	0.00098	0.00139	0.00150	0.00156	0.00051	0.00284	0.00261	0.00536	0.00005	0.00021	0.00080	0.00069
dodecylcyclohexane	0.00058	0.00115	0.00020	0.00028	0.00030	0.00031	0.00010	0.00057	0.00052	0.00107	0.00001	0.00004	0.00016	0.00014

Table A-5 (DAR, Section 7, Appendix 7A, Table 7A2-8) Maximum 24-Hour VOC Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
tridecylcyclohexane	0.00057	0.00113	0.00019	0.00027	0.00030	0.00031	0.00010	0.00056	0.00051	0.00105	0.00001	0.00004	0.00016	0.00014
tetradecylcyclohexane	0.00055	0.00109	0.00018	0.00026	0.00028	0.00030	0.00010	0.00054	0.00049	0.00101	0.00001	0.00004	0.00015	0.00013
pentadecylcyclohexane	0.00044	0.00088	0.00015	0.00021	0.00023	0.00024	0.00008	0.00043	0.00040	0.00082	0.00001	0.00003	0.00012	0.00011
2-methylhexane	0.01964	0.03897	0.00663	0.00942	0.01021	0.01063	0.00348	0.01930	0.01770	0.03638	0.00037	0.00142	0.00546	0.00472
3-methylhexane	0.01068	0.02119	0.00360	0.00513	0.00555	0.00578	0.00189	0.01050	0.00963	0.01979	0.00020	0.00077	0.00297	0.00257
3-ethylhexane	0.00724	0.01436	0.00244	0.00347	0.00376	0.00392	0.00128	0.00711	0.00652	0.01340	0.00014	0.00052	0.00201	0.00174
2,3-dimethylhexane	0.00551	0.01094	0.00186	0.00265	0.00287	0.00298	0.00098	0.00542	0.00497	0.01021	0.00010	0.00040	0.00153	0.00133
2,4-dimethylhexane	0.00172	0.00342	0.00058	0.00083	0.00090	0.00093	0.00031	0.00169	0.00155	0.00319	0.00003	0.00012	0.00048	0.00041
2,5-dimethylhexane	0.00172	0.00342	0.00058	0.00083	0.00090	0.00093	0.00031	0.00169	0.00155	0.00319	0.00003	0.00012	0.00048	0.00041
cis-2-hexene	0.00345	0.00684	0.00116	0.00165	0.00179	0.00187	0.00061	0.00339	0.00311	0.00638	0.00006	0.00025	0.00096	0.00083
trans-2-hexene	0.00551	0.01094	0.00186	0.00265	0.00287	0.00298	0.00098	0.00542	0.00497	0.01021	0.00010	0.00040	0.00153	0.00133
heptane	0.01620	0.03213	0.00546	0.00777	0.00842	0.00877	0.00287	0.01592	0.01460	0.03000	0.00030	0.00117	0.00450	0.00389
2-methylheptane	0.00345	0.00684	0.00116	0.00165	0.00179	0.00187	0.00061	0.00339	0.00311	0.00638	0.00006	0.00025	0.00096	0.00083
octane	0.00896	0.01777	0.00302	0.00430	0.00466	0.00485	0.00159	0.00881	0.00807	0.01660	0.00017	0.00065	0.00249	0.00215
nonane	0.00551	0.01094	0.00186	0.00265	0.00287	0.00298	0.00098	0.00542	0.00497	0.01021	0.00010	0.00040	0.00153	0.00133
dodecane	0.01733	0.03439	0.00585	0.00832	0.00901	0.00938	0.00307	0.01704	0.01562	0.03211	0.00033	0.00126	0.00481	0.00417
tridecane	0.01644	0.03261	0.00555	0.00789	0.00854	0.00890	0.00291	0.01615	0.01481	0.03045	0.00031	0.00119	0.00457	0.00395
tetradecane	0.02167	0.04300	0.00731	0.01040	0.01127	0.01173	0.00384	0.02130	0.01953	0.04015	0.00041	0.00157	0.00602	0.00521
n-pentadecane	0.01371	0.02721	0.00463	0.00658	0.00713	0.00742	0.00243	0.01348	0.01236	0.02540	0.00026	0.00099	0.00381	0.00330
hexadecane	0.02450	0.04860	0.00827	0.01175	0.01274	0.01326	0.00434	0.02408	0.02208	0.04538	0.00046	0.00178	0.00681	0.00589
n-heptadecane	0.02116	0.04197	0.00714	0.01015	0.01100	0.01145	0.00375	0.02079	0.01907	0.03919	0.00040	0.00153	0.00588	0.00509
n-octadecane	0.02071	0.04108	0.00699	0.00994	0.01077	0.01121	0.00367	0.02035	0.01866	0.03836	0.00039	0.00150	0.00575	0.00498
n-nonadecane	0.01416	0.02810	0.00478	0.00679	0.00736	0.00767	0.00251	0.01392	0.01276	0.02623	0.00027	0.00103	0.00393	0.00340
n-eicosane	0.00710	0.01408	0.00240	0.00341	0.00369	0.00384	0.00126	0.00698	0.00640	0.01315	0.00013	0.00051	0.00197	0.00171
n-heneicosane	0.00227	0.00450	0.00077	0.00109	0.00118	0.00123	0.00040	0.00223	0.00204	0.00420	0.00004	0.00016	0.00063	0.00054
farnesane	0.01496	0.02967	0.00505	0.00718	0.00777	0.00810	0.00265	0.01470	0.01348	0.02770	0.00028	0.00108	0.00415	0.00359
pristine	0.01527	0.03028	0.00515	0.00732	0.00794	0.00826	0.00271	0.01500	0.01376	0.02828	0.00029	0.00111	0.00424	0.00367
aldehyde	4.46593	8.85953	1.50682	2.14266	2.32192	2.41790	0.79214	4.38922	4.02495	8.27219	0.08389	0.32382	1.24053	1.07337
ketone	1.19468	2.37002	0.40308	0.57317	0.62101	0.64669	0.21181	1.17416	1.07662	2.21285	0.02244	0.08662	0.33185	0.28713
trimethylbenzenes	0.03928	0.07793	0.01325	0.01885	0.02042	0.02126	0.00696	0.03861	0.03540	0.07276	0.00074	0.00285	0.01091	0.00944
xylene	0.10911	0.21617	0.03694	0.05243	0.05756	0.05990	0.01994	0.10711	0.09881	0.20205	0.00208	0.00793	0.03037	0.02680
c_2-c_6 aliphatic	1.00923	2.00118	0.34140	0.48495	0.53612	0.55778	0.18762	0.99178	0.91792	1.87242	0.01929	0.07349	0.28081	0.25199
c_7-c_8 aliphatic	0.18539	0.36778	0.06255	0.08894	0.09637	0.10035	0.03287	0.18221	0.16707	0.34339	0.00348	0.01344	0.05150	0.04456
c_9-c_{10} aliphatic	0.00551	0.01094	0.00186	0.00265	0.00287	0.00298	0.00098	0.00542	0.00497	0.01021	0.00010	0.00040	0.00153	0.00133
c_{11}-c_{12} aliphatic	0.02074	0.04114	0.00700	0.00995	0.01078	0.01123	0.00368	0.02038	0.01869	0.03841	0.00039	0.00150	0.00576	0.00498
c_{13}-c_{16} aliphatic	0.11924	0.23655	0.04023	0.05721	0.06198	0.06455	0.02114	0.11719	0.10746	0.22087	0.00224	0.00865	0.03312	0.02866
c_{17}-c_{21} aliphatic	0.11825	0.23459	0.03990	0.05673	0.06147	0.06401	0.02097	0.11622	0.10657	0.21904	0.00222	0.00857	0.03285	0.02842
c_6-c_8 aromatic	0.25263	0.49243	0.08577	0.12000	0.13596	0.14122	0.04785	0.24410	0.22782	0.46128	0.00488	0.01822	0.07046	0.06389
c_9-c_{10} aromatic	0.02860	0.05674	0.00965	0.01372	0.01487	0.01548	0.00507	0.02811	0.02577	0.05298	0.00054	0.00207	0.00794	0.00687

C = carbon; µg/m³ = micrograms per cubic metres.

Table A-5 (DAR, Section 7, Appendix 7A, Table 7A2-8) Maximum 24-Hour VOC Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.00373	0.00621	0.00320	0.00586	0.13562	0.26673	0.05298	0.03890	0.03443	0.03715	0.04417	4.76506
acrolein	0.00317	0.00528	0.00275	0.00501	0.11528	0.22673	0.04504	0.03307	0.02927	0.03163	0.03756	4.05031
benzaldehyde	0.00354	0.00590	0.00304	0.00557	0.12884	0.25340	0.05033	0.03695	0.03271	0.03529	0.04196	4.52681
2,5-dimethylbenzaldehyde	0.00382	0.00636	0.00328	0.00601	0.13901	0.27340	0.05431	0.03987	0.03529	0.03808	0.04527	4.88419
butanal	0.00121	0.00202	0.00104	0.00191	0.04408	0.08669	0.01722	0.01264	0.01119	0.01207	0.01435	1.54865
formaldehyde	0.02151	0.03531	0.01893	0.03378	0.77606	1.48750	0.30614	0.21719	0.19625	0.20901	0.24758	26.56651
acetaldehyde	0.03896	0.06486	0.03353	0.06136	1.41721	2.78737	0.55369	0.40649	0.35977	0.38839	0.46161	49.79492
propanal	0.01305	0.02172	0.01121	0.02052	0.47466	0.93356	0.18544	0.13614	0.12049	0.13003	0.15459	16.67772
crotonaldehyde	0.01249	0.02079	0.01072	0.01964	0.45432	0.89356	0.17750	0.13031	0.11533	0.12446	0.14796	15.96296
hexanal	0.00205	0.00341	0.00176	0.00323	0.07459	0.14670	0.02914	0.02139	0.01893	0.02043	0.02429	2.62078
heptanal	0.00298	0.00496	0.00256	0.00469	0.10849	0.21339	0.04239	0.03112	0.02754	0.02972	0.03533	3.81205
octanal	0.00289	0.00481	0.00248	0.00454	0.10510	0.20672	0.04106	0.03015	0.02668	0.02879	0.03423	3.69292
nonanal	0.00410	0.00683	0.00352	0.00645	0.14918	0.29341	0.05828	0.04279	0.03787	0.04087	0.04859	5.24157
decanal	0.00261	0.00434	0.00224	0.00410	0.09493	0.18671	0.03709	0.02723	0.02410	0.02601	0.03092	3.33554
undecanal	0.00242	0.00403	0.00208	0.00381	0.08815	0.17338	0.03444	0.02528	0.02238	0.02415	0.02871	3.09729
dodecanal	0.00112	0.00186	0.00096	0.00176	0.04069	0.08002	0.01590	0.01167	0.01033	0.01115	0.01325	1.42952
tridecanal	0.00186	0.00310	0.00160	0.00293	0.06781	0.13337	0.02649	0.01945	0.01721	0.01858	0.02208	2.38253
1,2,4-trimethylbenzene	0.00082	0.00137	0.00070	0.00129	0.02984	0.05868	0.01166	0.00856	0.00757	0.00817	0.00972	1.04831
1,3,5-trimethylbenzene	0.00024	0.00040	0.00021	0.00038	0.00882	0.01734	0.00344	0.00253	0.00224	0.00241	0.00287	0.30973
benzene	0.00485	0.00670	0.00457	0.00640	0.09343	0.18312	0.03672	0.02905	0.02768	0.03042	0.03193	3.26489
ethylbenzene	0.00044	0.00073	0.00038	0.00069	0.01600	0.03137	0.00627	0.00458	0.00409	0.00437	0.00519	0.55991
propylbenzene	0.00009	0.00016	0.00008	0.00015	0.00339	0.00667	0.00132	0.00097	0.00086	0.00093	0.00110	0.11913
indanone	0.00006	0.00011	0.00006	0.00010	0.00236	0.00463	0.00092	0.00068	0.00060	0.00065	0.00077	0.08279
toluene	0.00447	0.00715	0.00421	0.00686	0.13911	0.26590	0.05511	0.03897	0.03606	0.03909	0.04480	4.74186
3-ethyl-toluene	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017
4-ethyl-toluene	0.00048	0.00081	0.00042	0.00076	0.01763	0.03468	0.00689	0.00506	0.00448	0.00483	0.00574	0.61946
acetone	0.02050	0.03413	0.01761	0.03225	0.74589	1.46703	0.29141	0.21394	0.18935	0.20433	0.24293	26.20784
acetophenone	0.00475	0.00791	0.00408	0.00748	0.17291	0.34008	0.06755	0.04959	0.04389	0.04737	0.05631	6.07545
methyl ethyl ketone	0.00699	0.01164	0.00600	0.01100	0.25428	0.50012	0.09935	0.07293	0.06455	0.06966	0.08282	8.93449
xylene	0.00260	0.00417	0.00246	0.00401	0.07915	0.15553	0.03100	0.02275	0.02053	0.02289	0.02615	2.77587
o-xylene	0.00078	0.00129	0.00067	0.00122	0.02821	0.05535	0.01103	0.00807	0.00716	0.00771	0.00917	0.98875
ethylene	0.00798	0.01328	0.00685	0.01255	0.29022	0.57081	0.11339	0.08324	0.07367	0.07950	0.09452	10.19724
1,1,1-trichloroethane (methyl chloroform)	0.00001	0.00001	0.00001	0.00001	0.00015	0.00009	0.00011	0.00002	0.00005	0.00002	0.00003	0.00003
butane	0.00357	0.00594	0.00307	0.00561	0.12985	0.25540	0.05073	0.03724	0.03296	0.03557	0.04229	4.56255
2,2-dimethylbutane	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929
2,3-dimethylbutane	0.00053	0.00088	0.00046	0.00084	0.01933	0.03801	0.00755	0.00554	0.00491	0.00529	0.00629	0.67902
isobutene	0.00106	0.00177	0.00091	0.00167	0.03865	0.07602	0.01510	0.01109	0.00981	0.01059	0.01259	1.35804
cis-2-butene	0.00024	0.00040	0.00021	0.00038	0.00882	0.01734	0.00344	0.00253	0.00224	0.00241	0.00287	0.30973
trans-2-butene	0.00048	0.00081	0.00042	0.00076	0.01763	0.03468	0.00689	0.00506	0.00448	0.00483	0.00574	0.61946
2-methyl-1-butene	0.00024	0.00040	0.00021	0.00038	0.00882	0.01734	0.00344	0.00253	0.00224	0.00241	0.00287	0.30973
3-methyl-1-butene	0.00015	0.00025	0.00013	0.00023	0.00542	0.01067	0.00212	0.00156	0.00138	0.00149	0.00177	0.19060
1,3-butadiene	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929
cyclopentane	0.00038	0.00064	0.00033	0.00060	0.01390	0.02734	0.00543	0.00399	0.00353	0.00381	0.00453	0.48842
methylcyclopentane	0.00058	0.00096	0.00050	0.00091	0.02102	0.04134	0.00821	0.00603	0.00534	0.00576	0.00685	0.73858
pentane	0.00173	0.00289	0.00149	0.00273	0.06306	0.12403	0.02464	0.01809	0.01601	0.01728	0.02054	2.21575
isopentane	0.00255	0.00425	0.00219	0.00402	0.09290	0.18271	0.03629	0.02664	0.02358	0.02545	0.03026	3.26407
2-methylpentane	0.00087	0.00144	0.00074	0.00136	0.03153	0.06202	0.01232	0.00904	0.00800	0.00864	0.01027	1.10788
3-methylpentane	0.00062	0.00104	0.00054	0.00098	0.02272	0.04468	0.00887	0.00652	0.00577	0.00622	0.00740	0.79815
2,3-dimethylpentane	0.00067	0.00112	0.00058	0.00106	0.02441	0.04801	0.00954	0.00700	0.00620	0.00669	0.00795	0.85771
2,4-dimethylpentane	0.00038	0.00064	0.00033	0.00060	0.01390	0.02734	0.00543	0.00399	0.00353	0.00381	0.00453	0.48842
2,2,4-trimethylpentane	0.00116	0.00192	0.00099	0.00182	0.04204	0.08269	0.01643	0.01206	0.01067	0.01152	0.01369	1.47717
2,3,4-trimethylpentane	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929
2-methyl-2-pentene	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017
trans-2-pentene	0.00005	0.00008	0.00004	0.00007	0.00170	0.00333	0.00066	0.00049	0.00043	0.00046	0.00055	0.05956
cyclohexane	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017
methylcyclohexane	0.00048	0.00081	0.00042	0.00076	0.01763	0.03468	0.00689	0.00506	0.00448	0.00483	0.00574	0.61946
pentylcyclohexane	0.00008	0.00013	0.00007	0.00012	0.00284	0.00559	0.00111	0.00082	0.00072	0.00078	0.00093	0.09995

Table A-5 (DAR, Section 7, Appendix 7A, Table 7A2-8) Maximum 24-Hour VOC Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
dodecylcyclohexane	0.00002	0.00003	0.00001	0.00002	0.00057	0.00112	0.00022	0.00016	0.00014	0.00016	0.00019	0.02001
tridecylcyclohexane	0.00002	0.00003	0.00001	0.00002	0.00056	0.00110	0.00022	0.00016	0.00014	0.00015	0.00018	0.01966
tetradecylcyclohexane	0.00001	0.00002	0.00001	0.00002	0.00054	0.00106	0.00021	0.00015	0.00014	0.00015	0.00018	0.01894
pentadecylcyclohexane	0.00001	0.00002	0.00001	0.00002	0.00043	0.00085	0.00017	0.00012	0.00011	0.00012	0.00014	0.01525
2-methylhexane	0.00053	0.00088	0.00046	0.00084	0.01933	0.03801	0.00755	0.00554	0.00491	0.00529	0.00629	0.67902
3-methylhexane	0.00029	0.00048	0.00025	0.00045	0.01051	0.02067	0.00411	0.00301	0.00267	0.00288	0.00342	0.36929
3-ethylhexane	0.00020	0.00033	0.00017	0.00031	0.00712	0.01400	0.00278	0.00204	0.00181	0.00195	0.00232	0.25017
2,3-dimethylhexane	0.00015	0.00025	0.00013	0.00023	0.00542	0.01067	0.00212	0.00156	0.00138	0.00149	0.00177	0.19060
2,4-dimethylhexane	0.00005	0.00008	0.00004	0.00007	0.00170	0.00333	0.00066	0.00049	0.00043	0.00046	0.00055	0.05956
2,5-dimethylhexane	0.00005	0.00008	0.00004	0.00007	0.00170	0.00333	0.00066	0.00049	0.00043	0.00046	0.00055	0.05956
cis-2-hexene	0.00009	0.00016	0.00008	0.00015	0.00339	0.00667	0.00132	0.00097	0.00086	0.00093	0.00110	0.11913
trans-2-hexene	0.00015	0.00025	0.00013	0.00023	0.00542	0.01067	0.00212	0.00156	0.00138	0.00149	0.00177	0.19060
heptane	0.00044	0.00073	0.00038	0.00069	0.01593	0.03134	0.00623	0.00457	0.00405	0.00437	0.00519	0.55989
2-methylheptane	0.00009	0.00016	0.00008	0.00015	0.00339	0.00667	0.00132	0.00097	0.00086	0.00093	0.00110	0.11913
octane	0.00024	0.00040	0.00021	0.00038	0.00882	0.01734	0.00344	0.00253	0.00224	0.00241	0.00287	0.30973
nonane	0.00015	0.00025	0.00013	0.00023	0.00542	0.01067	0.00212	0.00156	0.00138	0.00149	0.00177	0.19060
dodecane	0.00047	0.00078	0.00040	0.00074	0.01705	0.03354	0.00666	0.00489	0.00433	0.00467	0.00555	0.59921
tridecane	0.00044	0.00074	0.00038	0.00070	0.01617	0.03181	0.00632	0.00464	0.00411	0.00443	0.00527	0.56823
tetradecane	0.00059	0.00098	0.00050	0.00092	0.02133	0.04194	0.00833	0.00612	0.00541	0.00584	0.00695	0.74931
n-pentadecane	0.00037	0.00062	0.00032	0.00058	0.01349	0.02654	0.00527	0.00387	0.00343	0.00370	0.00439	0.47412
hexadecane	0.00066	0.00110	0.00057	0.00104	0.02411	0.04741	0.00942	0.00691	0.00612	0.00660	0.00785	0.84699
n-heptadecane	0.00057	0.00095	0.00049	0.00090	0.02082	0.04094	0.00813	0.00597	0.00528	0.00570	0.00678	0.73144
n-octadecane	0.00056	0.00093	0.00048	0.00088	0.02038	0.04008	0.00796	0.00584	0.00517	0.00558	0.00664	0.71595
n-nonadecane	0.00038	0.00064	0.00033	0.00060	0.01393	0.02741	0.00544	0.00400	0.00354	0.00382	0.00454	0.48961
n-eicosane	0.00019	0.00032	0.00016	0.00030	0.00698	0.01374	0.00273	0.00200	0.00177	0.00191	0.00227	0.24540
n-heneicosane	0.00006	0.00010	0.00005	0.00010	0.00223	0.00439	0.00087	0.00064	0.00057	0.00061	0.00073	0.07839
farnesane	0.00040	0.00067	0.00035	0.00064	0.01471	0.02894	0.00575	0.00422	0.00374	0.00403	0.00479	0.51701
pristine	0.00041	0.00069	0.00035	0.00065	0.01502	0.02954	0.00587	0.00431	0.00381	0.00411	0.00489	0.52773
aldehyde	0.12082	0.20112	0.10407	0.19034	4.39403	8.64218	1.71672	1.26032	1.11547	1.20442	1.43130	154.38815
ketone	0.03231	0.05379	0.02775	0.05083	1.17544	2.31187	0.45923	0.33714	0.29839	0.32201	0.38282	41.30058
trimethylbenzenes	0.00106	0.00177	0.00091	0.00167	0.03865	0.07602	0.01510	0.01109	0.00981	0.01059	0.01259	1.35804
xylene	0.00331	0.00544	0.00312	0.00523	0.10736	0.21088	0.04203	0.03082	0.02743	0.03060	0.03532	3.76463
c_2-c_6 aliphatic	0.03381	0.05354	0.03193	0.05141	0.99300	1.95211	0.38838	0.28560	0.25990	0.28947	0.32905	34.85919
c_7-c_8 aliphatic	0.00501	0.00835	0.00431	0.00789	0.18240	0.35876	0.07126	0.05232	0.04630	0.04997	0.05941	6.40901
c_9-c_{10} aliphatic	0.00015	0.00025	0.00013	0.00023	0.00542	0.01067	0.00212	0.00156	0.00138	0.00149	0.00177	0.19060
c_{11}-c_{12} aliphatic	0.00056	0.00093	0.00048	0.00088	0.02040	0.04013	0.00797	0.00585	0.00518	0.00559	0.00665	0.71690
c_{13}-c_{16} aliphatic	0.00322	0.00537	0.00277	0.00507	0.11732	0.23075	0.04584	0.03365	0.02978	0.03214	0.03821	4.12226
c_{17}-c_{21} aliphatic	0.00320	0.00532	0.00275	0.00503	0.11635	0.22884	0.04546	0.03337	0.02954	0.03187	0.03789	4.08807
c_6-c_8 aromatic	0.00972	0.01457	0.00917	0.01395	0.24854	0.48038	0.09810	0.07235	0.06765	0.07389	0.08193	8.56666
c_9-c_{10} aromatic	0.00077	0.00129	0.00066	0.00122	0.02814	0.05535	0.01099	0.00807	0.00714	0.00771	0.00916	0.98875

C = carbon; µg/m³ = micrograms per cubic metres.

Table A-6 (DAR, Section 7, Appendix 7A, Table 7A2-9) Maximum Annual VOC Predictions at Selected Locations Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.00194	0.16966	0.00197	0.12028	0.00499	0.00623	0.00011	0.00020	0.06057	0.06195	0.00809	0.01056	0.00786	0.01318
acrolein	0.00166	0.14422	0.00168	0.10224	0.00426	0.00530	0.00010	0.00017	0.05155	0.05272	0.00689	0.00898	0.00671	0.01123
benzaldehyde	0.00185	0.16118	0.00187	0.11426	0.00475	0.00592	0.00011	0.00019	0.05754	0.05885	0.00769	0.01003	0.00747	0.01253
2,5-dimethylbenzaldehyde	0.00199	0.17391	0.00202	0.12328	0.00512	0.00638	0.00012	0.00020	0.06209	0.06350	0.00829	0.01082	0.00806	0.01351
butanal	0.00063	0.05514	0.00064	0.03909	0.00162	0.00202	0.00004	0.00006	0.01969	0.02013	0.00263	0.00343	0.00256	0.00428
formaldehyde	0.01106	0.94608	0.01120	0.67075	0.02882	0.03524	0.00066	0.00112	0.34238	0.35003	0.04627	0.06000	0.04521	0.07405
acetaldehyde	0.02033	1.77300	0.02057	1.25689	0.05223	0.06511	0.00119	0.00204	0.63318	0.64755	0.08458	0.11034	0.08227	0.13786
propanal	0.00681	0.59382	0.00689	0.42097	0.01748	0.02180	0.00040	0.00068	0.21200	0.21682	0.02832	0.03695	0.02753	0.04615
crotonaldehyde	0.00652	0.56837	0.00659	0.40292	0.01673	0.02086	0.00038	0.00065	0.20292	0.20752	0.02710	0.03536	0.02635	0.04417
hexanal	0.00107	0.09332	0.00108	0.06615	0.00275	0.00343	0.00006	0.00011	0.03331	0.03407	0.00445	0.00581	0.00433	0.00725
heptanal	0.00156	0.13573	0.00157	0.09622	0.00400	0.00498	0.00009	0.00016	0.04846	0.04956	0.00647	0.00844	0.00629	0.01055
octanal	0.00151	0.13149	0.00152	0.09321	0.00387	0.00483	0.00009	0.00015	0.04694	0.04801	0.00627	0.00818	0.00610	0.01022
nonanal	0.00214	0.18663	0.00216	0.13230	0.00549	0.00685	0.00012	0.00021	0.06663	0.06814	0.00890	0.01161	0.00865	0.01450
decanal	0.00136	0.11876	0.00138	0.08419	0.00350	0.00436	0.00008	0.00014	0.04240	0.04336	0.00566	0.00739	0.00551	0.00923
undecanal	0.00126	0.11028	0.00128	0.07818	0.00325	0.00405	0.00007	0.00013	0.03937	0.04027	0.00526	0.00686	0.00511	0.00857
dodecanal	0.00058	0.05090	0.00059	0.03608	0.00150	0.00187	0.00003	0.00006	0.01817	0.01858	0.00243	0.00317	0.00236	0.00396
tridecanal	0.00097	0.08483	0.00098	0.06014	0.00250	0.00311	0.00006	0.00010	0.03029	0.03097	0.00405	0.00528	0.00393	0.00659
1,2,4-trimethylbenzene	0.00043	0.03733	0.00043	0.02646	0.00110	0.00137	0.00002	0.00004	0.01333	0.01363	0.00178	0.00232	0.00173	0.00290
1,3,5-trimethylbenzene	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
benzene	0.00165	0.11654	0.00170	0.08274	0.00452	0.00536	0.00014	0.00019	0.04787	0.04881	0.00660	0.00829	0.00802	0.01166
ethylbenzene	0.00023	0.01994	0.00023	0.01413	0.00061	0.00075	0.00001	0.00002	0.00714	0.00730	0.00095	0.00124	0.00093	0.00155
propylbenzene	0.00005	0.00424	0.00005	0.00301	0.00012	0.00016	0.00000	0.00000	0.00151	0.00155	0.00020	0.00026	0.00020	0.00033
indanone	0.00003	0.00295	0.00003	0.00209	0.00009	0.00011	0.00000	0.00000	0.00105	0.00108	0.00014	0.00018	0.00014	0.00023
toluene	0.00209	0.16897	0.00213	0.11984	0.00578	0.00692	0.00014	0.00022	0.06348	0.06484	0.00864	0.01109	0.00904	0.01418
3-ethyl-toluene	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
4-ethyl-toluene	0.00025	0.02206	0.00026	0.01564	0.00065	0.00081	0.00001	0.00003	0.00787	0.00805	0.00105	0.00137	0.00102	0.00171
acetone	0.01070	0.93315	0.01082	0.66152	0.02747	0.03425	0.00062	0.00107	0.33315	0.34071	0.04450	0.05806	0.04326	0.07251
acetophenone	0.00248	0.21632	0.00251	0.15335	0.00637	0.00794	0.00014	0.00025	0.07723	0.07898	0.01032	0.01346	0.01003	0.01681
methyl ethyl ketone	0.00365	0.31812	0.00369	0.22552	0.00937	0.01168	0.00021	0.00037	0.11357	0.11615	0.01517	0.01979	0.01475	0.02472
xylene	0.00121	0.09891	0.00124	0.07015	0.00323	0.00395	0.00008	0.00013	0.03689	0.03769	0.00498	0.00641	0.00525	0.00834
o-xylene	0.00040	0.03521	0.00041	0.02496	0.00104	0.00129	0.00002	0.00004	0.01258	0.01287	0.00168	0.00219	0.00164	0.00274
ethylene	0.00416	0.36308	0.00421	0.25739	0.01069	0.01333	0.00024	0.00042	0.12962	0.13257	0.01731	0.02259	0.01683	0.02821
1,1,1-trichloroethane (methyl chloroform)	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00003	0.00003	0.00001	0.00001	0.00001	0.00000
butane	0.00186	0.16245	0.00188	0.11516	0.00478	0.00596	0.00011	0.00019	0.05800	0.05931	0.00775	0.01011	0.00753	0.01262
2,2-dimethylbutane	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102
2,3-dimethylbutane	0.00028	0.02418	0.00028	0.01714	0.00071	0.00089	0.00002	0.00003	0.00863	0.00883	0.00115	0.00150	0.00112	0.00188
isobutene	0.00055	0.04835	0.00056	0.03428	0.00142	0.00177	0.00003	0.00006	0.01726	0.01765	0.00231	0.00301	0.00224	0.00376
cis-2-butene	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
trans-2-butene	0.00025	0.02206	0.00026	0.01564	0.00065	0.00081	0.00001	0.00003	0.00787	0.00805	0.00105	0.00137	0.00102	0.00171
2-methyl-1-butene	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
3-methyl-1-butene	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
1,3-butadiene	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102
cyclopentane	0.00020	0.01739	0.00020	0.01233	0.00051	0.00064	0.00001	0.00002	0.00621	0.00635	0.00083	0.00108	0.00081	0.00135
methylcyclopentane	0.00030	0.02630	0.00030	0.01864	0.00077	0.00097	0.00002	0.00003	0.00939	0.00960	0.00125	0.00164	0.00122	0.00204
pentane	0.00090	0.07889	0.00091	0.05593	0.00232	0.00290	0.00005	0.00009	0.02817	0.02881	0.00376	0.00491	0.00366	0.00613
isopentane	0.00133	0.11622	0.00135	0.08239	0.00342	0.00427	0.00008	0.00013	0.04149	0.04243	0.00554	0.00723	0.00539	0.00903
2-methylpentane	0.00045	0.03945	0.00046	0.02796	0.00116	0.00145	0.00003	0.00005	0.01408	0.01440	0.00188	0.00245	0.00183	0.00307
3-methylpentane	0.00033	0.02842	0.00033	0.02015	0.00084	0.00104	0.00002	0.00003	0.01015	0.01038	0.00136	0.00177	0.00132	0.00221
2,3-dimethylpentane	0.00035	0.03054	0.00035	0.02165	0.00090	0.00112	0.00002	0.00004	0.01090	0.01115	0.00146	0.00190	0.00142	0.00237
2,4-dimethylpentane	0.00020	0.01739	0.00020	0.01233	0.00051	0.00064	0.00001	0.00002	0.00621	0.00635	0.00083	0.00108	0.00081	0.00135
2,2,4-trimethylpentane	0.00060	0.05260	0.00061	0.03729	0.00155	0.00193	0.00004	0.00006	0.01878	0.01920	0.00251	0.00327	0.00244	0.00409
2,3,4-trimethylpentane	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102
2-methyl-2-pentene	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
trans-2-pentene	0.00002	0.00212	0.00002	0.00150	0.00006	0.00008	0.00000	0.00000	0.00076	0.00077	0.00010	0.00013	0.00010	0.00016
cyclohexane	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
methylcyclohexane	0.00025	0.02206	0.00026	0.01564	0.00065	0.00081	0.00001	0.00003	0.00787	0.00805	0.00105	0.00137	0.00102	0.00171
pentylcyclohexane	0.00004	0.00356	0.00004	0.00252	0.00010	0.00013	0.00000	0.00000	0.00127	0.00130	0.00017	0.00022	0.00016	0.00028
dodecylcyclohexane	0.00001	0.00071	0.00001	0.00051	0.00002	0.00003	0.00000	0.00000	0.00025	0.00026	0.00003	0.00004	0.00003	0.00006
tridecylcyclohexane	0.00001	0.00070	0.00001	0.00050	0.00002	0.00003	0.00000	0.00000	0.00025	0.00026	0.00003	0.00004	0.00003	0.00005

Table A-6 (DAR, Section 7, Appendix 7A, Table 7A2-9) Maximum Annual VOC Predictions at Selected Locations Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
tetradecylcyclohexane	0.00001	0.00067	0.00001	0.00048	0.00002	0.00002	0.00000	0.00000	0.00024	0.00025	0.00003	0.00004	0.00003	0.00005
pentadecylcyclohexane	0.00001	0.00054	0.00001	0.00038	0.00002	0.00002	0.00000	0.00000	0.00019	0.00020	0.00003	0.00003	0.00003	0.00004
2-methylhexane	0.00028	0.02418	0.00028	0.01714	0.00071	0.00089	0.00002	0.00003	0.00863	0.00883	0.00115	0.00150	0.00112	0.00188
3-methylhexane	0.00015	0.01315	0.00015	0.00932	0.00039	0.00048	0.00001	0.00002	0.00469	0.00480	0.00063	0.00082	0.00061	0.00102
3-ethylhexane	0.00010	0.00891	0.00010	0.00631	0.00026	0.00033	0.00001	0.00001	0.00318	0.00325	0.00042	0.00055	0.00041	0.00069
2,3-dimethylhexane	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
2,4-dimethylhexane	0.00002	0.00212	0.00002	0.00150	0.00006	0.00008	0.00000	0.00000	0.00076	0.00077	0.00010	0.00013	0.00010	0.00016
2,5-dimethylhexane	0.00002	0.00212	0.00002	0.00150	0.00006	0.00008	0.00000	0.00000	0.00076	0.00077	0.00010	0.00013	0.00010	0.00016
cis-2-hexene	0.00005	0.00424	0.00005	0.00301	0.00012	0.00016	0.00000	0.00000	0.00151	0.00155	0.00020	0.00026	0.00020	0.00033
trans-2-hexene	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
heptane	0.00023	0.01994	0.00023	0.01413	0.00059	0.00073	0.00001	0.00002	0.00712	0.00728	0.00095	0.00124	0.00092	0.00155
2-methylheptane	0.00005	0.00424	0.00005	0.00301	0.00012	0.00016	0.00000	0.00000	0.00151	0.00155	0.00020	0.00026	0.00020	0.00033
octane	0.00013	0.01103	0.00013	0.00782	0.00032	0.00040	0.00001	0.00001	0.00394	0.00403	0.00053	0.00069	0.00051	0.00086
nonane	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
dodecane	0.00024	0.02134	0.00025	0.01512	0.00063	0.00078	0.00001	0.00002	0.00762	0.00779	0.00102	0.00133	0.00099	0.00166
tridecane	0.00023	0.02023	0.00023	0.01434	0.00060	0.00074	0.00001	0.00002	0.00722	0.00739	0.00096	0.00126	0.00094	0.00157
tetradecane	0.00031	0.02668	0.00031	0.01891	0.00079	0.00098	0.00002	0.00003	0.00952	0.00974	0.00127	0.00166	0.00124	0.00207
n-pentadecane	0.00019	0.01688	0.00020	0.01197	0.00050	0.00062	0.00001	0.00002	0.00603	0.00616	0.00080	0.00105	0.00078	0.00131
hexadecane	0.00035	0.03016	0.00035	0.02138	0.00089	0.00111	0.00002	0.00003	0.01077	0.01101	0.00144	0.00188	0.00140	0.00234
n-heptadecane	0.00030	0.02604	0.00030	0.01846	0.00077	0.00096	0.00002	0.00003	0.00930	0.00951	0.00124	0.00162	0.00121	0.00202
n-octadecane	0.00029	0.02549	0.00030	0.01807	0.00075	0.00094	0.00002	0.00003	0.00910	0.00931	0.00122	0.00159	0.00118	0.00198
n-nonadecane	0.00020	0.01743	0.00020	0.01236	0.00051	0.00064	0.00001	0.00002	0.00622	0.00637	0.00083	0.00108	0.00081	0.00135
n-eicosane	0.00010	0.00874	0.00010	0.00619	0.00026	0.00032	0.00001	0.00001	0.00312	0.00319	0.00042	0.00054	0.00041	0.00068
n-heneicosane	0.00003	0.00279	0.00003	0.00198	0.00008	0.00010	0.00000	0.00000	0.00100	0.00102	0.00013	0.00017	0.00013	0.00022
farnesane	0.00021	0.01841	0.00021	0.01305	0.00054	0.00068	0.00001	0.00002	0.00657	0.00672	0.00088	0.00115	0.00085	0.00143
pristine	0.00022	0.01879	0.00022	0.01332	0.00055	0.00069	0.00001	0.00002	0.00671	0.00686	0.00090	0.00117	0.00087	0.00146
aldehyde	0.06306	5.49716	0.06379	3.89698	0.16198	0.20190	0.00368	0.00633	1.96345	2.00800	0.26228	0.34216	0.25519	0.42755
ketone	0.01686	1.47054	0.01705	1.04247	0.04329	0.05397	0.00098	0.00169	0.52500	0.53692	0.07012	0.09149	0.06817	0.11427
trimethylbenzenes	0.00055	0.04835	0.00056	0.03428	0.00142	0.00177	0.00003	0.00006	0.01726	0.01765	0.00231	0.00301	0.00224	0.00376
xylene	0.00162	0.13412	0.00164	0.09511	0.00427	0.00524	0.00010	0.00017	0.04947	0.05056	0.00666	0.00861	0.00688	0.01108
c_2-c_6 aliphatic	0.01537	1.24223	0.01566	0.88108	0.04000	0.04901	0.00104	0.00164	0.46564	0.47570	0.06293	0.08097	0.06687	0.10578
c_7-c_8 aliphatic	0.00262	0.22820	0.00265	0.16177	0.00672	0.00838	0.00015	0.00026	0.08147	0.08332	0.01088	0.01420	0.01058	0.01773
c_9-c_{10} aliphatic	0.00008	0.00679	0.00008	0.00481	0.00020	0.00025	0.00000	0.00001	0.00242	0.00248	0.00032	0.00042	0.00031	0.00053
c_{11}-c_{12} aliphatic	0.00029	0.02553	0.00030	0.01810	0.00075	0.00094	0.00002	0.00003	0.00911	0.00932	0.00122	0.00159	0.00118	0.00198
c_{13}-c_{16} aliphatic	0.00168	0.14678	0.00170	0.10405	0.00432	0.00539	0.00010	0.00017	0.05240	0.05359	0.00700	0.00913	0.00680	0.01141
c_{17}-c_{21} aliphatic	0.00167	0.14556	0.00169	0.10319	0.00429	0.00534	0.00010	0.00017	0.05197	0.05315	0.00694	0.00906	0.00675	0.01131
c_6-c_8 aromatic	0.00397	0.30545	0.00406	0.21672	0.01091	0.01304	0.00029	0.00044	0.11848	0.12095	0.01619	0.02062	0.01799	0.02739
c_9-c_{10} aromatic	0.00040	0.03521	0.00041	0.02496	0.00104	0.00129	0.00002	0.00004	0.01257	0.01285	0.00168	0.00219	0.00163	0.00274

C = carbon; µg/m³ = micrograms per cubic metres.

Table A-6 (DAR, Section 7, Appendix 7A, Table 7A2-9) Maximum Annual VOC Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.00963	0.01655	0.00398	0.00505	0.00269	0.00379	0.00223	0.00575	0.01139	0.02098	0.00015	0.00035	0.00409	0.00327
acrolein	0.00820	0.01407	0.00339	0.00430	0.00230	0.00323	0.00190	0.00489	0.00969	0.01784	0.00013	0.00030	0.00348	0.00278
benzaldehyde	0.00915	0.01572	0.00378	0.00480	0.00256	0.00360	0.00212	0.00546	0.01082	0.01994	0.00014	0.00033	0.00389	0.00310
2,5-dimethylbenzaldehyde	0.00987	0.01696	0.00408	0.00518	0.00276	0.00388	0.00228	0.00590	0.01168	0.02151	0.00015	0.00036	0.00419	0.00335
butanal	0.00313	0.00538	0.00129	0.00164	0.00088	0.00123	0.00072	0.00187	0.00370	0.00682	0.00005	0.00011	0.00133	0.00106
formaldehyde	0.05567	0.09325	0.02276	0.02841	0.01560	0.02169	0.01270	0.03235	0.06457	0.11803	0.00085	0.00196	0.02346	0.01839
acetaldehyde	0.10068	0.17292	0.04160	0.05280	0.02817	0.03961	0.02328	0.06012	0.11907	0.21931	0.00153	0.00363	0.04276	0.03414
propanal	0.03371	0.05791	0.01392	0.01767	0.00943	0.01326	0.00779	0.02013	0.03987	0.07345	0.00051	0.00121	0.01432	0.01143
crotonaldehyde	0.03227	0.05543	0.01333	0.01692	0.00902	0.01269	0.00746	0.01927	0.03817	0.07030	0.00049	0.00116	0.01370	0.01094
hexanal	0.00530	0.00910	0.00219	0.00278	0.00148	0.00208	0.00122	0.00316	0.00627	0.01154	0.00008	0.00019	0.00225	0.00180
heptanal	0.00771	0.01324	0.00318	0.00404	0.00215	0.00303	0.00178	0.00460	0.00911	0.01679	0.00012	0.00028	0.00327	0.00261
octanal	0.00747	0.01282	0.00308	0.00391	0.00209	0.00294	0.00173	0.00446	0.00883	0.01626	0.00011	0.00027	0.00317	0.00253
nonanal	0.01060	0.01820	0.00438	0.00555	0.00296	0.00417	0.00245	0.00633	0.01253	0.02308	0.00016	0.00038	0.00450	0.00359
decanal	0.00674	0.01158	0.00278	0.00353	0.00189	0.00265	0.00156	0.00403	0.00797	0.01469	0.00010	0.00024	0.00286	0.00229
undecanal	0.00626	0.01075	0.00259	0.00328	0.00175	0.00246	0.00145	0.00374	0.00741	0.01364	0.00010	0.00023	0.00266	0.00212
dodecanal	0.00289	0.00496	0.00119	0.00151	0.00081	0.00114	0.00067	0.00173	0.00342	0.00630	0.00004	0.00010	0.00123	0.00098
tridecanal	0.00482	0.00827	0.00199	0.00252	0.00135	0.00189	0.00111	0.00288	0.00570	0.01049	0.00007	0.00017	0.00205	0.00163
1,2,4-trimethylbenzene	0.00212	0.00364	0.00088	0.00111	0.00059	0.00083	0.00049	0.00127	0.00251	0.00462	0.00003	0.00008	0.00090	0.00072
1,3,5-trimethylbenzene	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
benzene	0.00740	0.01213	0.00380	0.00453	0.00253	0.00328	0.00186	0.00427	0.00841	0.01498	0.00016	0.00030	0.00340	0.00283
ethylbenzene	0.00114	0.00195	0.00047	0.00060	0.00032	0.00045	0.00026	0.00068	0.00134	0.00247	0.00002	0.00004	0.00048	0.00039
propylbenzene	0.00024	0.00041	0.00010	0.00013	0.00007	0.00009	0.00006	0.00014	0.00028	0.00052	0.00000	0.00001	0.00010	0.00008
indanone	0.00017	0.00029	0.00007	0.00009	0.00005	0.00007	0.00004	0.00010	0.00020	0.00036	0.00000	0.00001	0.00007	0.00006
toluene	0.01030	0.01700	0.00449	0.00549	0.00303	0.00412	0.00239	0.00590	0.01175	0.02129	0.00017	0.00037	0.00443	0.00352
3-ethyl-toluene	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
4-ethyl-toluene	0.00125	0.00215	0.00052	0.00066	0.00035	0.00049	0.00029	0.00075	0.00148	0.00273	0.00002	0.00005	0.00053	0.00042
acetone	0.05298	0.09100	0.02188	0.02777	0.01481	0.02084	0.01225	0.03164	0.06266	0.11541	0.00081	0.00191	0.02250	0.01796
acetophenone	0.01228	0.02110	0.00507	0.00644	0.00343	0.00483	0.00284	0.00733	0.01453	0.02676	0.00019	0.00044	0.00522	0.00416
methyl ethyl ketone	0.01806	0.03102	0.00746	0.00947	0.00505	0.00710	0.00418	0.01079	0.02136	0.03935	0.00027	0.00065	0.00767	0.00612
xylene	0.00582	0.00985	0.00259	0.00322	0.00174	0.00238	0.00138	0.00343	0.00679	0.01237	0.00010	0.00022	0.00254	0.00206
o-xylene	0.00200	0.00344	0.00083	0.00105	0.00056	0.00079	0.00046	0.00119	0.00237	0.00436	0.00003	0.00007	0.00085	0.00068
ethylene	0.02061	0.03541	0.00851	0.01081	0.00576	0.00811	0.00477	0.01231	0.02438	0.04491	0.00031	0.00074	0.00875	0.00699
1,1,1-trichloroethane (methyl chloroform)	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
butane	0.00922	0.01584	0.00381	0.00483	0.00258	0.00363	0.00213	0.00551	0.01091	0.02009	0.00014	0.00033	0.00392	0.00313
2,2-dimethylbutane	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025
2,3-dimethylbutane	0.00137	0.00236	0.00057	0.00072	0.00038	0.00054	0.00032	0.00082	0.00162	0.00299	0.00002	0.00005	0.00058	0.00047
isobutene	0.00275	0.00472	0.00113	0.00144	0.00077	0.00108	0.00063	0.00164	0.00325	0.00598	0.00004	0.00010	0.00117	0.00093
cis-2-butene	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
trans-2-butene	0.00125	0.00215	0.00052	0.00066	0.00035	0.00049	0.00029	0.00075	0.00148	0.00273	0.00002	0.00005	0.00053	0.00042
2-methyl-1-butene	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
3-methyl-1-butene	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
1,3-butadiene	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025
cyclopentane	0.00099	0.00170	0.00041	0.00052	0.00028	0.00039	0.00023	0.00059	0.00117	0.00215	0.00002	0.00004	0.00042	0.00033
methylcyclopentane	0.00149	0.00256	0.00062	0.00078	0.00042	0.00059	0.00035	0.00089	0.00177	0.00325	0.00002	0.00005	0.00063	0.00051
pentane	0.00448	0.00769	0.00185	0.00235	0.00125	0.00176	0.00104	0.00267	0.00530	0.00976	0.00007	0.00016	0.00190	0.00152
isopentane	0.00660	0.01133	0.00272	0.00346	0.00185	0.00260	0.00153	0.00394	0.00780	0.01437	0.00010	0.00024	0.00280	0.00224
2-methylpentane	0.00224	0.00385	0.00092	0.00117	0.00063	0.00088	0.00052	0.00134	0.00265	0.00488	0.00003	0.00008	0.00095	0.00076
3-methylpentane	0.00161	0.00277	0.00067	0.00085	0.00045	0.00063	0.00037	0.00096	0.00191	0.00351	0.00002	0.00006	0.00069	0.00055
2,3-dimethylpentane	0.00173	0.00298	0.00072	0.00091	0.00048	0.00068	0.00040	0.00104	0.00205	0.00378	0.00003	0.00006	0.00074	0.00059
2,4-dimethylpentane	0.00099	0.00170	0.00041	0.00052	0.00028	0.00039	0.00023	0.00059	0.00117	0.00215	0.00002	0.00004	0.00042	0.00033
2,2,4-trimethylpentane	0.00299	0.00513	0.00123	0.00157	0.00084	0.00117	0.00069	0.00178	0.00353	0.00651	0.00005	0.00011	0.00127	0.00101
2,3,4-trimethylpentane	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025
2-methyl-2-pentene	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
trans-2-pentene	0.00012	0.00021	0.00005	0.00006	0.00003	0.00005	0.00003	0.00007	0.00014	0.00026	0.00000	0.00000	0.00005	0.00004
cyclohexane	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
methylcyclohexane	0.00125	0.00215	0.00052	0.00066	0.00035	0.00049	0.00029	0.00075	0.00148	0.00273	0.00002	0.00005	0.00053	0.00042
pentylcyclohexane	0.00020	0.00035	0.00008	0.00011	0.00006	0.00008	0.00005	0.00012	0.00024	0.00044	0.00000	0.00001	0.00009	0.00007
dodecylcyclohexane	0.00004	0.00007	0.00002	0.00002	0.00001	0.00002	0.00001	0.00002	0.00005	0.00009	0.00000	0.00000	0.00002	0.00001

Table A-6 (DAR, Section 7, Appendix 7A, Table 7A2-9) Maximum Annual VOC Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
tridecylcyclohexane	0.00004	0.00007	0.00002	0.00002	0.00001	0.00002	0.00001	0.00002	0.00005	0.00009	0.00000	0.00000	0.00002	0.00001
tetradecylcyclohexane	0.00004	0.00007	0.00002	0.00002	0.00001	0.00002	0.00001	0.00002	0.00005	0.00008	0.00000	0.00000	0.00002	0.00001
pentadecylcyclohexane	0.00003	0.00005	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00004	0.00007	0.00000	0.00000	0.00001	0.00001
2-methylhexane	0.00137	0.00236	0.00057	0.00072	0.00038	0.00054	0.00032	0.00082	0.00162	0.00299	0.00002	0.00005	0.00058	0.00047
3-methylhexane	0.00075	0.00128	0.00031	0.00039	0.00021	0.00029	0.00017	0.00045	0.00088	0.00163	0.00001	0.00003	0.00032	0.00025
3-ethylhexane	0.00051	0.00087	0.00021	0.00027	0.00014	0.00020	0.00012	0.00030	0.00060	0.00110	0.00001	0.00002	0.00021	0.00017
2,3-dimethylhexane	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
2,4-dimethylhexane	0.00012	0.00021	0.00005	0.00006	0.00003	0.00005	0.00003	0.00007	0.00014	0.00026	0.00000	0.00000	0.00005	0.00004
2,5-dimethylhexane	0.00012	0.00021	0.00005	0.00006	0.00003	0.00005	0.00003	0.00007	0.00014	0.00026	0.00000	0.00000	0.00005	0.00004
cis-2-hexene	0.00024	0.00041	0.00010	0.00013	0.00007	0.00009	0.00006	0.00014	0.00028	0.00052	0.00000	0.00001	0.00010	0.00008
trans-2-hexene	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
heptane	0.00113	0.00194	0.00047	0.00059	0.00032	0.00045	0.00026	0.00068	0.00134	0.00247	0.00002	0.00004	0.00048	0.00038
2-methylheptane	0.00024	0.00041	0.00010	0.00013	0.00007	0.00009	0.00006	0.00014	0.00028	0.00052	0.00000	0.00001	0.00010	0.00008
octane	0.00063	0.00108	0.00026	0.00033	0.00018	0.00025	0.00014	0.00037	0.00074	0.00136	0.00001	0.00002	0.00027	0.00021
nonane	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
dodecane	0.00121	0.00208	0.00050	0.00063	0.00034	0.00048	0.00028	0.00072	0.00143	0.00264	0.00002	0.00004	0.00051	0.00041
tridecane	0.00115	0.00197	0.00047	0.00060	0.00032	0.00045	0.00027	0.00069	0.00136	0.00250	0.00002	0.00004	0.00049	0.00039
tetradecane	0.00151	0.00260	0.00063	0.00079	0.00042	0.00060	0.00035	0.00090	0.00179	0.00330	0.00002	0.00005	0.00064	0.00051
n-pentadecane	0.00096	0.00165	0.00040	0.00050	0.00027	0.00038	0.00022	0.00057	0.00113	0.00209	0.00001	0.00003	0.00041	0.00032
hexadecane	0.00171	0.00294	0.00071	0.00090	0.00048	0.00067	0.00040	0.00102	0.00203	0.00373	0.00003	0.00006	0.00073	0.00058
n-heptadecane	0.00148	0.00254	0.00061	0.00078	0.00041	0.00058	0.00034	0.00088	0.00175	0.00322	0.00002	0.00005	0.00063	0.00050
n-octadecane	0.00145	0.00249	0.00060	0.00076	0.00040	0.00057	0.00033	0.00086	0.00171	0.00315	0.00002	0.00005	0.00061	0.00049
n-nonadecane	0.00099	0.00170	0.00041	0.00052	0.00028	0.00039	0.00023	0.00059	0.00117	0.00216	0.00002	0.00004	0.00042	0.00034
n-eicosane	0.00050	0.00085	0.00020	0.00026	0.00014	0.00020	0.00011	0.00030	0.00059	0.00108	0.00001	0.00002	0.00021	0.00017
n-heneicosane	0.00016	0.00027	0.00007	0.00008	0.00004	0.00006	0.00004	0.00009	0.00019	0.00035	0.00000	0.00001	0.00007	0.00005
farnesane	0.00105	0.00180	0.00043	0.00055	0.00029	0.00041	0.00024	0.00062	0.00124	0.00228	0.00002	0.00004	0.00044	0.00035
pristine	0.00107	0.00183	0.00044	0.00056	0.00030	0.00042	0.00025	0.00064	0.00126	0.00232	0.00002	0.00004	0.00045	0.00036
aldehyde	0.31220	0.53617	0.12903	0.16375	0.08737	0.12284	0.07219	0.18642	0.36921	0.67998	0.00476	0.01125	0.13261	0.10589
ketone	0.08349	0.14340	0.03448	0.04376	0.02335	0.03284	0.01930	0.04986	0.09875	0.18188	0.00127	0.00301	0.03545	0.02830
trimethylbenzenes	0.00275	0.00472	0.00113	0.00144	0.00077	0.00108	0.00063	0.00164	0.00325	0.00598	0.00004	0.00010	0.00117	0.00093
xylene	0.00783	0.01328	0.00342	0.00427	0.00230	0.00317	0.00184	0.00463	0.00915	0.01673	0.00013	0.00029	0.00339	0.00274
c_2-c_6 aliphatic	0.07315	0.12372	0.03286	0.04070	0.02213	0.03014	0.01747	0.04325	0.08547	0.15563	0.00130	0.00276	0.03201	0.02597
c_7-c_8 aliphatic	0.01296	0.02225	0.00535	0.00679	0.00362	0.00510	0.00299	0.00774	0.01532	0.02822	0.00020	0.00047	0.00550	0.00439
c_9-c_{10} aliphatic	0.00039	0.00066	0.00016	0.00020	0.00011	0.00015	0.00009	0.00023	0.00046	0.00084	0.00001	0.00001	0.00016	0.00013
c_{11}-c_{12} aliphatic	0.00145	0.00249	0.00060	0.00076	0.00041	0.00057	0.00034	0.00087	0.00171	0.00316	0.00002	0.00005	0.00062	0.00049
c_{13}-c_{16} aliphatic	0.00833	0.01431	0.00344	0.00437	0.00233	0.00328	0.00193	0.00498	0.00986	0.01815	0.00013	0.00030	0.00354	0.00283
c_{17}-c_{21} aliphatic	0.00826	0.01419	0.00341	0.00433	0.00231	0.00325	0.00191	0.00493	0.00977	0.01800	0.00013	0.00030	0.00351	0.00280
c_6-c_8 aromatic	0.01884	0.03107	0.00876	0.01062	0.00588	0.00785	0.00451	0.01084	0.02150	0.03874	0.00036	0.00072	0.00832	0.00674
c_9-c_{10} aromatic	0.00200	0.00343	0.00083	0.00105	0.00056	0.00079	0.00046	0.00119	0.00236	0.00435	0.00003	0.00007	0.00085	0.00068

C = carbon; µg/m³ = micrograms per cubic metres.

Table A-6 (DAR, Section 7, Appendix 7A, Table 7A2-9) Maximum Annual VOC Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
methacrolein	0.00015	0.00024	0.00014	0.00023	0.00940	0.01597	0.00488	0.00404	0.00322	0.00263	0.00306	0.46293
acrolein	0.00013	0.00020	0.00012	0.00020	0.00800	0.01358	0.00416	0.00344	0.00274	0.00224	0.00261	0.39349
benzaldehyde	0.00014	0.00023	0.00014	0.00022	0.00893	0.01517	0.00464	0.00384	0.00306	0.00250	0.00291	0.43978
2,5-dimethylbenzaldehyde	0.00015	0.00024	0.00015	0.00024	0.00963	0.01637	0.00500	0.00414	0.00330	0.00269	0.00314	0.47450
butanal	0.00005	0.00008	0.00005	0.00007	0.00305	0.00519	0.00159	0.00131	0.00105	0.00085	0.00100	0.15045
formaldehyde	0.00086	0.00136	0.00083	0.00132	0.05454	0.09023	0.02813	0.02271	0.01840	0.01484	0.01739	2.58106
acetaldehyde	0.00155	0.00248	0.00149	0.00240	0.09825	0.16691	0.05104	0.04222	0.03368	0.02748	0.03204	4.83762
propanal	0.00052	0.00083	0.00050	0.00080	0.03290	0.05589	0.01709	0.01414	0.01127	0.00920	0.01073	1.62025
crotonaldehyde	0.00050	0.00080	0.00048	0.00077	0.03149	0.05350	0.01636	0.01353	0.01079	0.00880	0.01027	1.55081
hexanal	0.00008	0.00013	0.00008	0.00013	0.00517	0.00878	0.00269	0.00222	0.00177	0.00145	0.00169	0.25461
heptanal	0.00012	0.00019	0.00011	0.00018	0.00752	0.01278	0.00391	0.00323	0.00258	0.00210	0.00245	0.37034
octanal	0.00011	0.00018	0.00011	0.00018	0.00728	0.01238	0.00378	0.00313	0.00250	0.00204	0.00238	0.35877
nonanal	0.00016	0.00026	0.00016	0.00025	0.01034	0.01757	0.00537	0.00444	0.00354	0.00289	0.00337	0.50922
decanal	0.00010	0.00017	0.00010	0.00016	0.00658	0.01118	0.00342	0.00283	0.00225	0.00184	0.00215	0.32405
undecanal	0.00010	0.00015	0.00009	0.00015	0.00611	0.01038	0.00317	0.00263	0.00209	0.00171	0.00199	0.30090
dodecanal	0.00004	0.00007	0.00004	0.00007	0.00282	0.00479	0.00146	0.00121	0.00097	0.00079	0.00092	0.13888
tridecanal	0.00007	0.00012	0.00007	0.00011	0.00470	0.00798	0.00244	0.00202	0.00161	0.00131	0.00153	0.23146
1,2,4-trimethylbenzene	0.00003	0.00005	0.00003	0.00005	0.00207	0.00351	0.00107	0.00089	0.00071	0.00058	0.00067	0.10184
1,3,5-trimethylbenzene	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009
benzene	0.00018	0.00024	0.00018	0.00024	0.00719	0.01169	0.00400	0.00342	0.00301	0.00261	0.00253	0.31749
ethylbenzene	0.00002	0.00003	0.00002	0.00003	0.00112	0.00189	0.00058	0.00048	0.00039	0.00032	0.00036	0.05440
propylbenzene	0.00000	0.00001	0.00000	0.00001	0.00023	0.00040	0.00012	0.00010	0.00008	0.00007	0.00008	0.01157
indanone	0.00000	0.00000	0.00000	0.00000	0.00016	0.00028	0.00008	0.00007	0.00006	0.00005	0.00005	0.00804
toluene	0.00018	0.00027	0.00018	0.00026	0.01008	0.01644	0.00529	0.00431	0.00371	0.00307	0.00326	0.46080
3-ethyl-toluene	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430
4-ethyl-toluene	0.00002	0.00003	0.00002	0.00003	0.00122	0.00208	0.00063	0.00053	0.00042	0.00034	0.00040	0.06018
acetone	0.00081	0.00131	0.00078	0.00126	0.05170	0.08783	0.02685	0.02221	0.01771	0.01445	0.01686	2.54611
acetophenone	0.00019	0.00030	0.00018	0.00029	0.01198	0.02036	0.00623	0.00515	0.00411	0.00335	0.00391	0.59023
methyl ethyl ketone	0.00028	0.00045	0.00027	0.00043	0.01762	0.02994	0.00915	0.00757	0.00604	0.00493	0.00575	0.86799
xylene	0.00011	0.00016	0.00010	0.00015	0.00567	0.00950	0.00301	0.00252	0.00211	0.00176	0.00189	0.26975
o-xylene	0.00003	0.00005	0.00003	0.00005	0.00196	0.00332	0.00102	0.00084	0.00067	0.00055	0.00064	0.09606
ethylene	0.00032	0.00051	0.00030	0.00049	0.02012	0.03418	0.01045	0.00864	0.00689	0.00562	0.00656	0.99067
1,1,1-trichloroethane (methyl chloroform)	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000
butane	0.00014	0.00023	0.00014	0.00022	0.00900	0.01529	0.00468	0.00387	0.00308	0.00252	0.00293	0.44325
2,2-dimethylbutane	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588
2,3-dimethylbutane	0.00002	0.00003	0.00002	0.00003	0.00134	0.00228	0.00070	0.00058	0.00046	0.00037	0.00044	0.06597
isobutene	0.00004	0.00007	0.00004	0.00007	0.00268	0.00455	0.00139	0.00115	0.00092	0.00075	0.00087	0.13193
cis-2-butene	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009
trans-2-butene	0.00002	0.00003	0.00002	0.00003	0.00122	0.00208	0.00063	0.00053	0.00042	0.00034	0.00040	0.06018
2-methyl-1-butene	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009
3-methyl-1-butene	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852
1,3-butadiene	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588
cyclopentane	0.00002	0.00002	0.00001	0.00002	0.00096	0.00164	0.00050	0.00041	0.00033	0.00027	0.00031	0.04745
methylcyclopentane	0.00002	0.00004	0.00002	0.00004	0.00146	0.00248	0.00076	0.00063	0.00050	0.00041	0.00048	0.07175
pentane	0.00007	0.00011	0.00007	0.00011	0.00437	0.00743	0.00227	0.00188	0.00150	0.00122	0.00143	0.21526
isopentane	0.00010	0.00016	0.00010	0.00016	0.00644	0.01094	0.00334	0.00277	0.00221	0.00180	0.00210	0.31711
2-methylpentane	0.00003	0.00006	0.00003	0.00005	0.00219	0.00371	0.00114	0.00094	0.00075	0.00061	0.00071	0.10763
3-methylpentane	0.00002	0.00004	0.00002	0.00004	0.00157	0.00267	0.00082	0.00068	0.00054	0.00044	0.00051	0.07754
2,3-dimethylpentane	0.00003	0.00004	0.00003	0.00004	0.00169	0.00287	0.00088	0.00073	0.00058	0.00047	0.00055	0.08333
2,4-dimethylpentane	0.00002	0.00002	0.00001	0.00002	0.00096	0.00164	0.00050	0.00041	0.00033	0.00027	0.00031	0.04745
2,2,4-trimethylpentane	0.00005	0.00007	0.00004	0.00007	0.00291	0.00495	0.00151	0.00125	0.00100	0.00081	0.00095	0.14351
2,3,4-trimethylpentane	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588
2-methyl-2-pentene	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430
trans-2-pentene	0.00000	0.00000	0.00000	0.00000	0.00012	0.00020	0.00006	0.00005	0.00004	0.00003	0.00004	0.00579
cyclohexane	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430
methylcyclohexane	0.00002	0.00003	0.00002	0.00003	0.00122	0.00208	0.00063	0.00053	0.00042	0.00034	0.00040	0.06018
pentylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00020	0.00033	0.00010	0.00008	0.00007	0.00006	0.00006	0.00971
dodecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00004	0.00007	0.00002	0.00002	0.00001	0.00001	0.00001	0.00194
tridecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00004	0.00007	0.00002	0.00002	0.00001	0.00001	0.00001	0.00191

Table A-6 (DAR, Section 7, Appendix 7A, Table 7A2-9) Maximum Annual VOC Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
tetradecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00004	0.00006	0.00002	0.00002	0.00001	0.00001	0.00001	0.00184
pentadecylcyclohexane	0.00000	0.00000	0.00000	0.00000	0.00003	0.00005	0.00002	0.00001	0.00001	0.00001	0.00001	0.00148
2-methylhexane	0.00002	0.00003	0.00002	0.00003	0.00134	0.00228	0.00070	0.00058	0.00046	0.00037	0.00044	0.06597
3-methylhexane	0.00001	0.00002	0.00001	0.00002	0.00073	0.00124	0.00038	0.00031	0.00025	0.00020	0.00024	0.03588
3-ethylhexane	0.00001	0.00001	0.00001	0.00001	0.00049	0.00084	0.00026	0.00021	0.00017	0.00014	0.00016	0.02430
2,3-dimethylhexane	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852
2,4-dimethylhexane	0.00000	0.00000	0.00000	0.00000	0.00012	0.00020	0.00006	0.00005	0.00004	0.00003	0.00004	0.00579
2,5-dimethylhexane	0.00000	0.00000	0.00000	0.00000	0.00012	0.00020	0.00006	0.00005	0.00004	0.00003	0.00004	0.00579
cis-2-hexene	0.00000	0.00001	0.00000	0.00001	0.00023	0.00040	0.00012	0.00010	0.00008	0.00007	0.00008	0.01157
trans-2-hexene	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852
heptane	0.00002	0.00003	0.00002	0.00003	0.00110	0.00188	0.00057	0.00047	0.00038	0.00031	0.00036	0.05439
2-methylheptane	0.00000	0.00001	0.00000	0.00001	0.00023	0.00040	0.00012	0.00010	0.00008	0.00007	0.00008	0.01157
octane	0.00001	0.00002	0.00001	0.00001	0.00061	0.00104	0.00032	0.00026	0.00021	0.00017	0.00020	0.03009
nonane	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852
dodecane	0.00002	0.00003	0.00002	0.00003	0.00118	0.00201	0.00061	0.00051	0.00040	0.00033	0.00039	0.05821
tridecane	0.00002	0.00003	0.00002	0.00003	0.00112	0.00190	0.00058	0.00048	0.00038	0.00031	0.00037	0.05520
tetradecane	0.00002	0.00004	0.00002	0.00004	0.00148	0.00251	0.00077	0.00064	0.00051	0.00041	0.00048	0.07280
n-pentadecane	0.00001	0.00002	0.00001	0.00002	0.00094	0.00159	0.00049	0.00040	0.00032	0.00026	0.00030	0.04606
hexadecane	0.00003	0.00004	0.00003	0.00004	0.00167	0.00284	0.00087	0.00072	0.00057	0.00047	0.00054	0.08229
n-heptadecane	0.00002	0.00004	0.00002	0.00004	0.00144	0.00245	0.00075	0.00062	0.00049	0.00040	0.00047	0.07106
n-octadecane	0.00002	0.00004	0.00002	0.00003	0.00141	0.00240	0.00073	0.00061	0.00048	0.00039	0.00046	0.06955
n-nonadecane	0.00002	0.00002	0.00001	0.00002	0.00097	0.00164	0.00050	0.00041	0.00033	0.00027	0.00031	0.04757
n-eicosane	0.00001	0.00001	0.00001	0.00001	0.00048	0.00082	0.00025	0.00021	0.00017	0.00014	0.00016	0.02384
n-heneicosane	0.00000	0.00000	0.00000	0.00000	0.00015	0.00026	0.00008	0.00007	0.00005	0.00004	0.00005	0.00762
farnesane	0.00002	0.00003	0.00002	0.00002	0.00102	0.00173	0.00053	0.00044	0.00035	0.00029	0.00033	0.05023
pristine	0.00002	0.00003	0.00002	0.00003	0.00104	0.00177	0.00054	0.00045	0.00036	0.00029	0.00034	0.05127
aldehyde	0.00480	0.00770	0.00462	0.00746	0.30465	0.51752	0.15829	0.13094	0.10445	0.08524	0.09936	14.99894
ketone	0.00128	0.00206	0.00123	0.00199	0.08147	0.13842	0.04232	0.03500	0.02791	0.02278	0.02656	4.01237
trimethylbenzenes	0.00004	0.00007	0.00004	0.00007	0.00268	0.00455	0.00139	0.00115	0.00092	0.00075	0.00087	0.13193
xylene	0.00014	0.00021	0.00013	0.00020	0.00763	0.01282	0.00403	0.00336	0.00278	0.00231	0.00253	0.36581
c_2-c_6 aliphatic	0.00136	0.00202	0.00133	0.00197	0.07128	0.11934	0.03798	0.03181	0.02618	0.02184	0.02394	3.38769
c_7-c_8 aliphatic	0.00020	0.00032	0.00019	0.00031	0.01264	0.02148	0.00657	0.00543	0.00433	0.00353	0.00412	0.62264
c_9-c_{10} aliphatic	0.00001	0.00001	0.00001	0.00001	0.00038	0.00064	0.00020	0.00016	0.00013	0.00011	0.00012	0.01852
c_{11}-c_{12} aliphatic	0.00002	0.00004	0.00002	0.00003	0.00141	0.00240	0.00073	0.00061	0.00048	0.00040	0.00046	0.06965
c_{13}-c_{16} aliphatic	0.00013	0.00021	0.00012	0.00020	0.00813	0.01382	0.00422	0.00349	0.00279	0.00227	0.00265	0.40048
c_{17}-c_{21} aliphatic	0.00013	0.00020	0.00012	0.00020	0.00806	0.01370	0.00419	0.00346	0.00276	0.00225	0.00263	0.39716
c_6-c_8 aromatic	0.00038	0.00054	0.00037	0.00053	0.01839	0.03001	0.00987	0.00821	0.00712	0.00600	0.00615	0.83268
c_9-c_{10} aromatic	0.00003	0.00005	0.00003	0.00005	0.00195	0.00331	0.00101	0.00084	0.00067	0.00055	0.00064	0.09606

C = carbon; µg/m³ = micrograms per cubic metres.

Table A-7 (DAR, Section 7, Appendix 7A, Table 7A2-10) Maximum 1-Hour Dioxin/Furan Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA	13DDJPB	CAMS Polar Explosives	Courageous Lake Lodge	Diavik Camp	Diavik TK Camp	Ekati Airport Station	Ekati Camp/Administration	Koala Station	Lac de Gras Winter Road Rest Stop	Lac De Grass Hunting Camp
2378 - TCDD	$3.68x10^{-12}$	$3.36x10^{-12}$	$4.82x10^{-10}$	$1.18x10^{-12}$	$2.61x10^{-10}$	$1.82x10^{-11}$	$1.08x10^{-10}$	$1.41x10^{-10}$	$1.20x10^{-10}$	$2.04x10^{-11}$	$6.13x10^{-12}$
12378 - PeCDD	$5.96x10^{-12}$	$5.43x10^{-12}$	$7.80x10^{-10}$	$1.91x10^{-12}$	$4.22x10^{-10}$	$2.94x10^{-11}$	$1.74x10^{-10}$	$2.28x10^{-10}$	$1.94x10^{-10}$	$3.31x10^{-11}$	$9.91x10^{-12}$
123478 - HxCDD	$1.30x10^{-12}$	$1.19x10^{-12}$	$1.70x10^{-10}$	$4.16x10^{-13}$	$9.21x10^{-11}$	$6.42x10^{-12}$	$3.80x10^{-11}$	$4.98x10^{-11}$	$4.23x10^{-11}$	$7.21x10^{-12}$	$2.16x10^{-12}$
123678 - HxCDD	$3.46x10^{-12}$	$3.16x10^{-12}$	$4.54x10^{-10}$	$1.11x10^{-12}$	$2.46x10^{-10}$	$1.71x10^{-11}$	$1.01x10^{-10}$	$1.33x10^{-10}$	$1.13x10^{-10}$	$1.92x10^{-11}$	$5.77x10^{-12}$
123789 - HxCDD	$5.31x10^{-12}$	$4.84x10^{-12}$	$6.95x10^{-10}$	$1.70x10^{-12}$	$3.76x10^{-10}$	$2.62x10^{-11}$	$1.55x10^{-10}$	$2.03x10^{-10}$	$1.73x10^{-10}$	$2.95x10^{-11}$	$8.83x10^{-12}$
1234678 - HpCDD	$9.84x10^{-12}$	$8.98x10^{-12}$	$1.29x10^{-09}$	$3.15x10^{-12}$	$6.98x10^{-10}$	$4.86x10^{-11}$	$2.88x10^{-10}$	$3.77x10^{-10}$	$3.20x10^{-10}$	$5.46x10^{-11}$	$1.64x10^{-11}$
1,2,3,4,6,7,8,9-Octa CDD	$1.00x10^{-11}$	$9.13x10^{-12}$	$1.31x10^{-09}$	$3.20x10^{-12}$	$7.10x10^{-10}$	$4.95x10^{-11}$	$2.93x10^{-10}$	$3.84x10^{-10}$	$3.26x10^{-10}$	$5.56x10^{-11}$	$1.67x10^{-11}$
2378 - TCDF	$6.03x10^{-11}$	$5.50x10^{-11}$	$7.90x10^{-09}$	$1.93x10^{-11}$	$4.28x10^{-09}$	$2.98x10^{-10}$	$1.76x10^{-09}$	$2.31x10^{-09}$	$1.96x10^{-09}$	$3.35x10^{-10}$	$1.00x10^{-10}$
12378 - PeCDF	$3.15x10^{-11}$	$2.88x10^{-11}$	$4.13x10^{-09}$	$1.01x10^{-11}$	$2.24x10^{-09}$	$1.56x10^{-10}$	$9.22x10^{-10}$	$1.21x10^{-09}$	$1.03x10^{-09}$	$1.75x10^{-10}$	$5.25x10^{-11}$
23478 - PeCDF	$5.43x10^{-11}$	$4.95x10^{-11}$	$7.11x10^{-09}$	$1.74x10^{-11}$	$3.85x10^{-09}$	$2.68x10^{-10}$	$1.59x10^{-09}$	$2.08x10^{-09}$	$1.77x10^{-09}$	$3.02x10^{-10}$	$9.04x10^{-11}$
123478 - HxCDF	$5.52x10^{-11}$	$5.04x10^{-11}$	$7.23x10^{-09}$	$1.77x10^{-11}$	$3.91x10^{-09}$	$2.73x10^{-10}$	$1.61x10^{-09}$	$2.12x10^{-09}$	$1.80x10^{-09}$	$3.06x10^{-10}$	$9.19x10^{-11}$
123678 - HxCDF	$2.97x10^{-11}$	$2.71x10^{-11}$	$3.88x10^{-09}$	$9.49x10^{-12}$	$2.10x10^{-09}$	$1.47x10^{-10}$	$8.67x10^{-10}$	$1.14x10^{-09}$	$9.65x10^{-10}$	$1.65x10^{-10}$	$4.94x10^{-11}$
234678 - HxCDF	$1.15x10^{-11}$	$1.05x10^{-11}$	$1.50x10^{-09}$	$3.67x10^{-12}$	$8.13x10^{-10}$	$5.67x10^{-11}$	$3.35x10^{-10}$	$4.39x10^{-10}$	$3.73x10^{-10}$	$6.37x10^{-11}$	$1.91x10^{-11}$
123789 - HxCDF	$1.19x10^{-12}$	$1.09x10^{-12}$	$1.56x10^{-10}$	$3.81x10^{-13}$	$8.44x10^{-11}$	$5.89x10^{-12}$	$3.48x10^{-11}$	$4.56x10^{-11}$	$3.87x10^{-11}$	$6.61x10^{-12}$	$1.98x10^{-12}$
1234678 - HpCDF	$4.50x10^{-11}$	$4.11x10^{-11}$	$5.90x10^{-09}$	$1.44x10^{-11}$	$3.19x10^{-09}$	$2.23x10^{-10}$	$1.32x10^{-09}$	$1.73x10^{-09}$	$1.46x10^{-09}$	$2.50x10^{-10}$	$7.50x10^{-11}$
1234789 - HpCDF	$5.09x10^{-12}$	$4.64x10^{-12}$	$6.67x10^{-10}$	$1.63x10^{-12}$	$3.61x10^{-10}$	$2.51x10^{-11}$	$1.49x10^{-10}$	$1.95x10^{-10}$	$1.66x10^{-10}$	$2.82x10^{-11}$	$8.47x10^{-12}$
1,2,3,4,6,7,8,9-Octa CDF	$4.67x10^{-12}$	$4.26x10^{-12}$	$6.11x10^{-10}$	$1.49x10^{-12}$	$3.31x10^{-10}$	$2.31x10^{-11}$	$1.36x10^{-10}$	$1.79x10^{-10}$	$1.52x10^{-10}$	$2.59x10^{-11}$	$7.77x10^{-12}$
Total PCDD	$1.40x10^{-10}$	$1.28x10^{-10}$	$1.84x10^{-08}$	$4.49x10^{-11}$	$9.95x10^{-09}$	$6.93x10^{-10}$	$4.10x10^{-09}$	$5.38x10^{-09}$	$4.56x10^{-09}$	$7.79x10^{-10}$	$2.34x10^{-10}$
Total PCDF	$9.79x10^{-10}$	$8.93x10^{-10}$	$1.28x10^{-07}$	$3.13x10^{-10}$	$6.94x10^{-08}$	$4.84x10^{-09}$	$2.86x10^{-08}$	$3.75x10^{-08}$	$3.18x10^{-08}$	$5.43x10^{-09}$	$1.63x10^{-09}$
PCDD (TEQ)[(a)]	$1.07x10^{-11}$	$9.80x10^{-12}$	$1.41x10^{-09}$	$3.44x10^{-12}$	$7.62x10^{-10}$	$5.31x10^{-11}$	$3.14x10^{-10}$	$4.12x10^{-10}$	$3.50x10^{-10}$	$5.97x10^{-11}$	$1.79x10^{-11}$
PCDF (TEQ) [(a)]	$3.35x10^{-11}$	$3.06x10^{-11}$	$4.39x10^{-09}$	$1.07x10^{-11}$	$2.38x10^{-09}$	$1.66x10^{-10}$	$9.80x10^{-10}$	$1.28x10^{-09}$	$1.09x10^{-09}$	$1.86x10^{-10}$	$5.58x10^{-11}$

[(a)] (TEQ) = toxic equivalency; µg/m3 = micrograms per cubic metres.

Table A-7 (DAR, Section 7, Appendix 7A, Table 7A2-10) Maximum 1-Hour Dioxin/Furan Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Misery Camp	Pellatt Lake Cabin	Polar Lake Station	Salmita Airstrip	Treeline Lodge	TSP1	TSP2	TSP3	Jay Pit Boundary	MPOI
2378 - TCDD	$1.69x10^{-11}$	$1.29x10^{-12}$	$6.12x10^{-11}$	$1.69x10^{-12}$	$1.63x10^{-12}$	$1.47x10^{-10}$	$7.65x10^{-11}$	$3.80x10^{-10}$	$4.99x10^{-12}$	$9.29x10^{-10}$
12378 - PeCDD	$2.73x10^{-11}$	$2.08x10^{-12}$	$9.90x10^{-11}$	$2.74x10^{-12}$	$2.64x10^{-12}$	$2.37x10^{-10}$	$1.24x10^{-10}$	$6.14x10^{-10}$	$8.07x10^{-12}$	$1.50x10^{-09}$
123478 - HxCDD	$5.96x10^{-12}$	$4.54x10^{-13}$	$2.16x10^{-11}$	$5.98x10^{-13}$	$5.77x10^{-13}$	$5.18x10^{-11}$	$2.70x10^{-11}$	$1.34x10^{-10}$	$1.76x10^{-12}$	$3.28x10^{-10}$
123678 - HxCDD	$1.59x10^{-11}$	$1.21x10^{-12}$	$5.76x10^{-11}$	$1.59x10^{-12}$	$1.54x10^{-12}$	$1.38x10^{-10}$	$7.20x10^{-11}$	$3.57x10^{-10}$	$4.69x10^{-12}$	$8.74x10^{-10}$
123789 - HxCDD	$2.44x10^{-11}$	$1.86x10^{-12}$	$8.82x10^{-11}$	$2.44x10^{-12}$	$2.36x10^{-12}$	$2.11x10^{-10}$	$1.10x10^{-10}$	$5.47x10^{-10}$	$7.19x10^{-12}$	$1.34x10^{-09}$
1234678 - HpCDD	$4.52x10^{-11}$	$3.44x10^{-12}$	$1.64x10^{-10}$	$4.53x10^{-12}$	$4.37x10^{-12}$	$3.92x10^{-10}$	$2.05x10^{-10}$	$1.02x10^{-09}$	$1.33x10^{-11}$	$2.48x10^{-09}$
1,2,3,4,6,7,8,9-Octa CDD	$4.59x10^{-11}$	$3.50x10^{-12}$	$1.66x10^{-10}$	$4.61x10^{-12}$	$4.44x10^{-12}$	$3.99x10^{-10}$	$2.08x10^{-10}$	$1.03x10^{-09}$	$1.36x10^{-11}$	$2.52x10^{-09}$
2378 - TCDF	$2.77x10^{-10}$	$2.11x10^{-11}$	$1.00x10^{-09}$	$2.78x10^{-11}$	$2.68x10^{-11}$	$2.40x10^{-09}$	$1.25x10^{-09}$	$6.22x10^{-09}$	$8.18x10^{-11}$	$1.52x10^{-08}$
12378 - PeCDF	$1.45x10^{-10}$	$1.10x10^{-11}$	$5.24x10^{-10}$	$1.45x10^{-11}$	$1.40x10^{-11}$	$1.26x10^{-09}$	$6.56x10^{-10}$	$3.25x10^{-09}$	$4.27x10^{-11}$	$7.95x10^{-09}$
23478 - PeCDF	$2.49x10^{-10}$	$1.90x10^{-11}$	$9.03x10^{-10}$	$2.50x10^{-11}$	$2.41x10^{-11}$	$2.16x10^{-09}$	$1.13x10^{-09}$	$5.60x10^{-09}$	$7.36x10^{-11}$	$1.37x10^{-08}$
123478 - HxCDF	$2.53x10^{-10}$	$1.93x10^{-11}$	$9.18x10^{-10}$	$2.54x10^{-11}$	$2.45x10^{-11}$	$2.20x10^{-09}$	$1.15x10^{-09}$	$5.69x10^{-09}$	$7.48x10^{-11}$	$1.39x10^{-08}$
123678 - HxCDF	$1.36x10^{-10}$	$1.04x10^{-11}$	$4.93x10^{-10}$	$1.36x10^{-11}$	$1.32x10^{-11}$	$1.18x10^{-09}$	$6.17x10^{-10}$	$3.06x10^{-09}$	$4.02x10^{-11}$	$7.48x10^{-09}$
234678 - HxCDF	$5.26x10^{-11}$	$4.01x10^{-12}$	$1.91x10^{-10}$	$5.28x10^{-12}$	$5.09x10^{-12}$	$4.57x10^{-10}$	$2.38x10^{-10}$	$1.18x10^{-09}$	$1.55x10^{-11}$	$2.89x10^{-09}$
123789 - HxCDF	$5.47x10^{-12}$	$4.16x10^{-13}$	$1.98x10^{-11}$	$5.48x10^{-13}$	$5.29x10^{-13}$	$4.75x10^{-11}$	$2.48x10^{-11}$	$1.23x10^{-10}$	$1.61x10^{-12}$	$3.00x10^{-10}$
1234678 - HpCDF	$2.07x10^{-10}$	$1.57x10^{-11}$	$7.49x10^{-10}$	$2.07x10^{-11}$	$2.00x10^{-11}$	$1.79x10^{-09}$	$9.36x10^{-10}$	$4.64x10^{-09}$	$6.10x10^{-11}$	$1.14x10^{-08}$
1234789 - HpCDF	$2.34x10^{-11}$	$1.78x10^{-12}$	$8.46x10^{-11}$	$2.34x10^{-12}$	$2.26x10^{-12}$	$2.03x10^{-10}$	$1.06x10^{-10}$	$5.25x10^{-10}$	$6.90x10^{-12}$	$1.28x10^{-09}$
1,2,3,4,6,7,8,9-Octa CDF	$2.14x10^{-11}$	$1.63x10^{-12}$	$7.76x10^{-11}$	$2.15x10^{-12}$	$2.07x10^{-12}$	$1.86x10^{-10}$	$9.70x10^{-11}$	$4.81x10^{-10}$	$6.32x10^{-12}$	$1.18x10^{-09}$
Total PCDD	$6.44x10^{-10}$	$4.91x10^{-11}$	$2.33x10^{-09}$	$6.46x10^{-11}$	$6.23x10^{-11}$	$5.59x10^{-09}$	$2.92x10^{-09}$	$1.45x10^{-08}$	$1.90x10^{-10}$	$3.54x10^{-08}$
Total PCDF	$4.49x10^{-09}$	$3.42x10^{-10}$	$1.63x10^{-08}$	$4.50x10^{-10}$	$4.34x10^{-10}$	$3.90x10^{-08}$	$2.03x10^{-08}$	$1.01x10^{-07}$	$1.33x10^{-09}$	$2.47x10^{-07}$
PCDD (TEQ)[(a)]	$4.93x10^{-11}$	$3.76x10^{-12}$	$1.79x10^{-10}$	$4.95x10^{-12}$	$4.77x10^{-12}$	$4.28x10^{-10}$	$2.23x10^{-10}$	$1.11x10^{-09}$	$1.46x10^{-11}$	$2.71x10^{-09}$
PCDF (TEQ) [(a)]	$1.54x10^{-10}$	$1.17x10^{-11}$	$5.58x10^{-10}$	$1.54x10^{-11}$	$1.49x10^{-11}$	$1.34x10^{-09}$	$6.97x10^{-10}$	$3.46x10^{-09}$	$4.54x10^{-11}$	$8.46x10^{-09}$

[(a)] (TEQ) = toxic equivalency; µg/m³ = micrograms per cubic metres.

Table A-8 (DAR, Section 7, Appendix 7A, Table 7A2-11) Maximum 24-Hour Dioxin/Furan Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA	13DDJPB	CAMS Polar Explosives	Courageous Lake Lodge	Diavik Camp	Diavik TK Camp	Ekati Airport Station	Ekati Camp/Administration	Koala Station	Lac de Gras Winter Road Rest Stop	Lac De Grass Hunting Camp
2378 - TCDD	$9.75x10^{-13}$	$1.07x10^{-12}$	$9.75x10^{-11}$	$2.00x10^{-13}$	$7.64x10^{-11}$	$6.17x10^{-12}$	$1.96x10^{-11}$	$2.61x10^{-11}$	$4.15x10^{-11}$	$4.85x10^{-12}$	$1.30x10^{-12}$
12378 - PeCDD	$1.58x10^{-12}$	$1.73x10^{-12}$	$1.58x10^{-10}$	$3.23x10^{-13}$	$1.24x10^{-10}$	$9.99x10^{-12}$	$3.17x10^{-11}$	$4.23x10^{-11}$	$6.72x10^{-11}$	$7.84x10^{-12}$	$2.11x10^{-12}$
123478 - HxCDD	$3.44x10^{-13}$	$3.78x10^{-13}$	$3.44x10^{-11}$	$7.04x10^{-14}$	$2.70x10^{-11}$	$2.18x10^{-12}$	$6.92x10^{-12}$	$9.23x10^{-12}$	$1.47x10^{-11}$	$1.71x10^{-12}$	$4.60x10^{-13}$
123678 - HxCDD	$9.17x10^{-13}$	$1.01x10^{-12}$	$9.17x10^{-11}$	$1.88x10^{-13}$	$7.18x10^{-11}$	$5.81x10^{-12}$	$1.85x10^{-11}$	$2.46x10^{-11}$	$3.91x10^{-11}$	$4.56x10^{-12}$	$1.23x10^{-12}$
123789 - HxCDD	$1.40x10^{-12}$	$1.54x10^{-12}$	$1.40x10^{-10}$	$2.88x10^{-13}$	$1.10x10^{-10}$	$8.90x10^{-12}$	$2.83x10^{-11}$	$3.77x10^{-11}$	$5.99x10^{-11}$	$6.99x10^{-12}$	$1.88x10^{-12}$
1234678 - HpCDD	$2.60x10^{-12}$	$2.86x10^{-12}$	$2.61x10^{-10}$	$5.33x10^{-13}$	$2.04x10^{-10}$	$1.65x10^{-11}$	$5.24x10^{-11}$	$6.99x10^{-11}$	$1.11x10^{-10}$	$1.30x10^{-11}$	$3.48x10^{-12}$
1,2,3,4,6,7,8,9-Octa CDD	$2.65x10^{-12}$	$2.91x10^{-12}$	$2.65x10^{-10}$	$5.42x10^{-13}$	$2.08x10^{-10}$	$1.68x10^{-11}$	$5.33x10^{-11}$	$7.11x10^{-11}$	$1.13x10^{-10}$	$1.32x10^{-11}$	$3.54x10^{-12}$
2378 - TCDF	$1.60x10^{-11}$	$1.75x10^{-11}$	$1.60x10^{-09}$	$3.27x10^{-12}$	$1.25x10^{-09}$	$1.01x10^{-10}$	$3.21x10^{-10}$	$4.28x10^{-10}$	$6.81x10^{-10}$	$7.95x10^{-11}$	$2.13x10^{-11}$
12378 - PeCDF	$8.35x10^{-12}$	$9.16x10^{-12}$	$8.35x10^{-10}$	$1.71x10^{-12}$	$6.54x10^{-10}$	$5.29x10^{-11}$	$1.68x10^{-10}$	$2.24x10^{-10}$	$3.56x10^{-10}$	$4.15x10^{-11}$	$1.12x10^{-11}$
23478 - PeCDF	$1.44x10^{-11}$	$1.58x10^{-11}$	$1.44x10^{-09}$	$2.94x10^{-12}$	$1.13x10^{-09}$	$9.11x10^{-11}$	$2.89x10^{-10}$	$3.86x10^{-10}$	$6.13x10^{-10}$	$7.15x10^{-11}$	$1.92x10^{-11}$
123478 - HxCDF	$1.46x10^{-11}$	$1.60x10^{-11}$	$1.46x10^{-09}$	$2.99x10^{-12}$	$1.15x10^{-09}$	$9.26x10^{-11}$	$2.94x10^{-10}$	$3.92x10^{-10}$	$6.23x10^{-10}$	$7.27x10^{-11}$	$1.95x10^{-11}$
123678 - HxCDF	$7.85x10^{-12}$	$8.62x10^{-12}$	$7.85x10^{-10}$	$1.61x10^{-12}$	$6.15x10^{-10}$	$4.97x10^{-11}$	$1.58x10^{-10}$	$2.11x10^{-10}$	$3.35x10^{-10}$	$3.91x10^{-11}$	$1.05x10^{-11}$
234678 - HxCDF	$3.04x10^{-12}$	$3.33x10^{-12}$	$3.04x10^{-10}$	$6.21x10^{-13}$	$2.38x10^{-10}$	$1.92x10^{-11}$	$6.11x10^{-11}$	$8.14x10^{-11}$	$1.29x10^{-10}$	$1.51x10^{-11}$	$4.06x10^{-12}$
123789 - HxCDF	$3.15x10^{-13}$	$3.46x10^{-13}$	$3.15x10^{-11}$	$6.45x10^{-14}$	$2.47x10^{-11}$	$2.00x10^{-12}$	$6.35x10^{-12}$	$8.46x10^{-12}$	$1.34x10^{-11}$	$1.57x10^{-12}$	$4.21x10^{-13}$
1234678 - HpCDF	$1.19x10^{-11}$	$1.31x10^{-11}$	$1.19x10^{-09}$	$2.44x10^{-12}$	$9.34x10^{-10}$	$7.55x10^{-11}$	$2.40x10^{-10}$	$3.20x10^{-10}$	$5.08x10^{-10}$	$5.93x10^{-11}$	$1.59x10^{-11}$
1234789 - HpCDF	$1.35x10^{-12}$	$1.48x10^{-12}$	$1.35x10^{-10}$	$2.76x10^{-13}$	$1.06x10^{-10}$	$8.53x10^{-12}$	$2.71x10^{-11}$	$3.61x10^{-11}$	$5.74x10^{-11}$	$6.70x10^{-12}$	$1.80x10^{-12}$
1,2,3,4,6,7,8,9-Octa CDF	$1.24x10^{-12}$	$1.36x10^{-12}$	$1.24x10^{-10}$	$2.53x10^{-13}$	$9.68x10^{-11}$	$7.83x10^{-12}$	$2.49x10^{-11}$	$3.31x10^{-11}$	$5.27x10^{-11}$	$6.15x10^{-12}$	$1.65x10^{-12}$
Total PCDD	$3.71x10^{-11}$	$4.08x10^{-11}$	$3.72x10^{-09}$	$6.40x10^{-12}$	$1.46x10^{-09}$	$1.18x10^{-10}$	$7.48x10^{-10}$	$9.96x10^{-10}$	$1.58x10^{-09}$	$1.29x10^{-10}$	$3.64x10^{-11}$
Total PCDF	$2.59x10^{-10}$	$2.84x10^{-10}$	$2.59x10^{-08}$	$4.46x10^{-11}$	$1.02x10^{-08}$	$8.21x10^{-10}$	$5.21x10^{-09}$	$6.95x10^{-09}$	$1.10x10^{-08}$	$9.01x10^{-10}$	$2.54x10^{-10}$
PCDD (TEQ)[(a)]	$2.84x10^{-12}$	$3.12x10^{-12}$	$2.84x10^{-10}$	$4.90x10^{-13}$	$1.12x10^{-10}$	$9.01x10^{-12}$	$5.72x10^{-11}$	$7.63x10^{-11}$	$1.21x10^{-10}$	$9.90x10^{-12}$	$2.79x10^{-12}$
PCDF (TEQ) [(a)]	$8.87x10^{-12}$	$9.74x10^{-12}$	$8.88x10^{-10}$	$1.53x10^{-12}$	$3.48x10^{-10}$	$2.81x10^{-11}$	$1.79x10^{-10}$	$2.38x10^{-10}$	$3.78x10^{-10}$	$3.09x10^{-11}$	$8.71x10^{-12}$

a) (TEQ) = toxic equivalency; µg/m³ = micrograms per cubic metres.

Table A-8 (DAR, Section 7, Appendix 7A, Table 7A2-11) Maximum 24-Hour Dioxin/Furan Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Misery Camp	Pellatt Lake Cabin	Polar Lake Station	Salmita Airstrip	Treeline Lodge	TSP1	TSP2	TSP3	Jay Pit Boundary	MPOI
2378 - TCDD	$1.99x10^{-12}$	$1.76x10^{-13}$	$1.39x10^{-11}$	$3.72x10^{-13}$	$3.99x10^{-13}$	$2.62x10^{-11}$	$2.90x10^{-11}$	$5.28x10^{-11}$	$1.51x10^{-12}$	$3.30x10^{-10}$
12378 - PeCDD	$3.21x10^{-12}$	$2.85x10^{-13}$	$2.24x10^{-11}$	$6.01x10^{-13}$	$6.46x10^{-13}$	$4.24x10^{-11}$	$4.69x10^{-11}$	$8.55x10^{-11}$	$2.45x10^{-12}$	$5.34x10^{-10}$
123478 - HxCDD	$7.01x10^{-13}$	$6.22x10^{-14}$	$4.89x10^{-12}$	$1.31x10^{-13}$	$1.41x10^{-13}$	$9.25x10^{-12}$	$1.02x10^{-11}$	$1.86x10^{-11}$	$5.35x10^{-13}$	$1.17x10^{-10}$
123678 - HxCDD	$1.87x10^{-12}$	$1.66x10^{-13}$	$1.30x10^{-11}$	$3.50x10^{-13}$	$3.76x10^{-13}$	$2.47x10^{-11}$	$2.73x10^{-11}$	$4.97x10^{-11}$	$1.43x10^{-12}$	$3.11x10^{-10}$
123789 - HxCDD	$2.86x10^{-12}$	$2.54x10^{-13}$	$2.00x10^{-11}$	$5.35x10^{-13}$	$5.76x10^{-13}$	$3.78x10^{-11}$	$4.18x10^{-11}$	$7.62x10^{-11}$	$2.18x10^{-12}$	$4.76x10^{-10}$
1234678 - HpCDD	$5.31x10^{-12}$	$4.71x10^{-13}$	$3.70x10^{-11}$	$9.93x10^{-13}$	$1.07x10^{-12}$	$7.01x10^{-11}$	$7.75x10^{-11}$	$1.41x10^{-10}$	$4.05x10^{-12}$	$8.83x10^{-10}$
1,2,3,4,6,7,8,9-Octa CDD	$5.40x10^{-12}$	$4.79x10^{-13}$	$3.77x10^{-11}$	$1.01x10^{-12}$	$1.09x10^{-12}$	$7.13x10^{-11}$	$7.89x10^{-11}$	$1.44x10^{-10}$	$4.12x10^{-12}$	$8.98x10^{-10}$
2378 - TCDF	$3.26x10^{-11}$	$2.89x10^{-12}$	$2.27x10^{-10}$	$6.09x10^{-12}$	$6.54x10^{-12}$	$4.30x10^{-10}$	$4.75x10^{-10}$	$8.66x10^{-10}$	$2.48x10^{-11}$	$5.41x10^{-09}$
12378 - PeCDF	$1.70x10^{-11}$	$1.51x10^{-12}$	$1.19x10^{-10}$	$3.18x10^{-12}$	$3.42x10^{-12}$	$2.25x10^{-10}$	$2.48x10^{-10}$	$4.53x10^{-10}$	$1.30x10^{-11}$	$2.83x10^{-09}$
23478 - PeCDF	$2.93x10^{-11}$	$2.60x10^{-12}$	$2.04x10^{-10}$	$5.48x10^{-12}$	$5.89x10^{-12}$	$3.87x10^{-10}$	$4.28x10^{-10}$	$7.79x10^{-10}$	$2.23x10^{-11}$	$4.87x10^{-09}$
123478 - HxCDF	$2.98x10^{-11}$	$2.64x10^{-12}$	$2.08x10^{-10}$	$5.57x10^{-12}$	$5.99x10^{-12}$	$3.93x10^{-10}$	$4.35x10^{-10}$	$7.92x10^{-10}$	$2.27x10^{-11}$	$4.95x10^{-09}$
123678 - HxCDF	$1.60x10^{-11}$	$1.42x10^{-12}$	$1.12x10^{-10}$	$2.99x10^{-12}$	$3.22x10^{-12}$	$2.11x10^{-10}$	$2.34x10^{-10}$	$4.26x10^{-10}$	$1.22x10^{-11}$	$2.66x10^{-09}$
234678 - HxCDF	$6.19x10^{-12}$	$5.49x10^{-13}$	$4.31x10^{-11}$	$1.16x10^{-12}$	$1.24x10^{-12}$	$8.17x10^{-11}$	$9.03x10^{-11}$	$1.65x10^{-10}$	$4.72x10^{-12}$	$1.03x10^{-09}$
123789 - HxCDF	$6.43x10^{-13}$	$5.70x10^{-14}$	$4.48x10^{-12}$	$1.20x10^{-13}$	$1.29x10^{-13}$	$8.48x10^{-12}$	$9.38x10^{-12}$	$1.71x10^{-11}$	$4.90x10^{-13}$	$1.07x10^{-10}$
1234678 - HpCDF	$2.43x10^{-11}$	$2.16x10^{-12}$	$1.69x10^{-10}$	$4.54x10^{-12}$	$4.88x10^{-12}$	$3.21x10^{-10}$	$3.55x10^{-10}$	$6.46x10^{-10}$	$1.85x10^{-11}$	$4.04x10^{-09}$
1234789 - HpCDF	$2.75x10^{-12}$	$2.44x10^{-13}$	$1.91x10^{-11}$	$5.13x10^{-13}$	$5.52x10^{-13}$	$3.62x10^{-11}$	$4.01x10^{-11}$	$7.30x10^{-11}$	$2.09x10^{-12}$	$4.56x10^{-10}$
1,2,3,4,6,7,8,9-Octa CDF	$2.52x10^{-12}$	$2.23x10^{-13}$	$1.76x10^{-11}$	$4.71x10^{-13}$	$5.06x10^{-13}$	$3.32x10^{-11}$	$3.68x10^{-11}$	$6.70x10^{-11}$	$1.92x10^{-12}$	$4.19x10^{-10}$
Total PCDD	$7.32x10^{-11}$	$6.57x10^{-12}$	$5.28x10^{-10}$	$1.42x10^{-11}$	$1.52x10^{-11}$	$9.99x10^{-10}$	$1.11x10^{-09}$	$2.01x10^{-09}$	$4.95x10^{-11}$	$6.29x10^{-09}$
Total PCDF	$5.11x10^{-10}$	$4.58x10^{-11}$	$3.68x10^{-09}$	$9.87x10^{-11}$	$1.06x10^{-10}$	$6.97x10^{-09}$	$7.71x10^{-09}$	$1.40x10^{-08}$	$3.45x10^{-10}$	$4.39x10^{-08}$
PCDD (TEQ)[(a)]	$5.61x10^{-12}$	$5.03x10^{-13}$	$4.04x10^{-11}$	$1.08x10^{-12}$	$1.17x10^{-12}$	$7.65x10^{-11}$	$8.46x10^{-11}$	$1.54x10^{-10}$	$3.79x10^{-12}$	$4.82x10^{-10}$
PCDF (TEQ) [(a)]	$1.75x10^{-11}$	$1.57x10^{-12}$	$1.26x10^{-10}$	$3.38x10^{-12}$	$3.64x10^{-12}$	$2.39x10^{-10}$	$2.64x10^{-10}$	$4.81x10^{-10}$	$1.18x10^{-11}$	$1.50x10^{-09}$

a) (TEQ) = toxic equivalency; µg/m³ = micrograms per cubic metres.

Table A-9 (DAR, Section 7, Appendix 7A, Table 7A2-12) Maximum Annual Dioxin/Furan Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA	13DDJPB	CAMS Polar Explosives	Courageous Lake Lodge	Diavik Camp	Diavik TK Camp	Ekati Airport Station	Ekati Camp/Administration	Koala Station	Lac de Gras Winter Road Rest Stop	Lac De Grass Hunting Camp
2378 - TCDD	$1.14x10^{-13}$	$1.17x10^{-13}$	$7.37x10^{-12}$	$1.23x10^{-14}$	$4.01x10^{-12}$	$2.57x10^{-13}$	$1.55x10^{-12}$	$2.01x10^{-12}$	$1.31x10^{-12}$	$2.77x10^{-13}$	$1.15x10^{-13}$
12378 - PeCDD	$1.84x10^{-13}$	$1.90x10^{-13}$	$1.19x10^{-11}$	$1.98x10^{-14}$	$6.49x10^{-12}$	$4.15x10^{-13}$	$2.51x10^{-12}$	$3.25x10^{-12}$	$2.12x10^{-12}$	$4.48x10^{-13}$	$1.85x10^{-13}$
123478 - HxCDD	$4.02x10^{-14}$	$4.14x10^{-14}$	$2.60x10^{-12}$	$4.33x10^{-15}$	$1.42x10^{-12}$	$9.06x10^{-14}$	$5.49x10^{-13}$	$7.10x10^{-13}$	$4.62x10^{-13}$	$9.77x10^{-14}$	$4.04x10^{-14}$
123678 - HxCDD	$1.07x10^{-13}$	$1.10x10^{-13}$	$6.93x10^{-12}$	$1.15x10^{-14}$	$3.78x10^{-12}$	$2.42x10^{-13}$	$1.46x10^{-12}$	$1.89x10^{-12}$	$1.23x10^{-12}$	$2.60x10^{-13}$	$1.08x10^{-13}$
123789 - HxCDD	$1.64x10^{-13}$	$1.69x10^{-13}$	$1.06x10^{-11}$	$1.77x10^{-14}$	$5.79x10^{-12}$	$3.70x10^{-13}$	$2.24x10^{-12}$	$2.90x10^{-12}$	$1.89x10^{-12}$	$3.99x10^{-13}$	$1.65x10^{-13}$
1234678 - HpCDD	$3.05x10^{-13}$	$3.13x10^{-13}$	$1.97x10^{-11}$	$3.28x10^{-14}$	$1.07x10^{-11}$	$6.86x10^{-13}$	$4.16x10^{-12}$	$5.38x10^{-12}$	$3.50x10^{-12}$	$7.40x10^{-13}$	$3.06x10^{-13}$
1,2,3,4,6,7,8,9-Octa CDD	$3.10x10^{-13}$	$3.19x10^{-13}$	$2.00x10^{-11}$	$3.33x10^{-14}$	$1.09x10^{-11}$	$6.98x10^{-13}$	$4.23x10^{-12}$	$5.47x10^{-12}$	$3.56x10^{-12}$	$7.53x10^{-13}$	$3.12x10^{-13}$
2378 - TCDF	$1.87x10^{-12}$	$1.92x10^{-12}$	$1.21x10^{-10}$	$2.01x10^{-13}$	$6.58x10^{-11}$	$4.21x10^{-12}$	$2.55x10^{-11}$	$3.30x10^{-11}$	$2.14x10^{-11}$	$4.54x10^{-12}$	$1.88x10^{-12}$
12378 - PeCDF	$9.76x10^{-13}$	$1.00x10^{-12}$	$6.31x10^{-11}$	$1.05x10^{-13}$	$3.44x10^{-11}$	$2.20x10^{-12}$	$1.33x10^{-11}$	$1.72x10^{-11}$	$1.12x10^{-11}$	$2.37x10^{-12}$	$9.82x10^{-13}$
23478 - PeCDF	$1.68x10^{-12}$	$1.73x10^{-12}$	$1.09x10^{-10}$	$1.81x10^{-13}$	$5.92x10^{-11}$	$3.79x10^{-12}$	$2.29x10^{-11}$	$2.97x10^{-11}$	$1.93x10^{-11}$	$4.08x10^{-12}$	$1.69x10^{-12}$
123478 - HxCDF	$1.71x10^{-12}$	$1.76x10^{-12}$	$1.10x10^{-10}$	$1.84x10^{-13}$	$6.02x10^{-11}$	$3.85x10^{-12}$	$2.33x10^{-11}$	$3.02x10^{-11}$	$1.96x10^{-11}$	$4.15x10^{-12}$	$1.72x10^{-12}$
123678 - HxCDF	$9.18x10^{-13}$	$9.44x10^{-13}$	$5.93x10^{-11}$	$9.87x10^{-14}$	$3.23x10^{-11}$	$2.07x10^{-12}$	$1.25x10^{-11}$	$1.62x10^{-11}$	$1.05x10^{-11}$	$2.23x10^{-12}$	$9.23x10^{-13}$
234678 - HxCDF	$3.55x10^{-13}$	$3.65x10^{-13}$	$2.29x10^{-11}$	$3.82x10^{-14}$	$1.25x10^{-11}$	$8.00x10^{-13}$	$4.84x10^{-12}$	$6.27x10^{-12}$	$4.07x10^{-12}$	$8.62x10^{-13}$	$3.57x10^{-13}$
123789 - HxCDF	$3.69x10^{-14}$	$3.79x10^{-14}$	$2.38x10^{-12}$	$3.97x10^{-15}$	$1.30x10^{-12}$	$8.31x10^{-14}$	$5.03x10^{-13}$	$6.51x10^{-13}$	$4.23x10^{-13}$	$8.96x10^{-14}$	$3.71x10^{-14}$
1234678 - HpCDF	$1.39x10^{-12}$	$1.43x10^{-12}$	$9.01x10^{-11}$	$1.50x10^{-13}$	$4.91x10^{-11}$	$3.14x10^{-12}$	$1.90x10^{-11}$	$2.46x10^{-11}$	$1.60x10^{-11}$	$3.39x10^{-12}$	$1.40x10^{-12}$
1234789 - HpCDF	$1.58x10^{-13}$	$1.62x10^{-13}$	$1.02x10^{-11}$	$1.69x10^{-14}$	$5.55x10^{-12}$	$3.55x10^{-13}$	$2.15x10^{-12}$	$2.78x10^{-12}$	$1.81x10^{-12}$	$3.83x10^{-13}$	$1.58x10^{-13}$
1,2,3,4,6,7,8,9-Octa CDF	$1.44x10^{-13}$	$1.49x10^{-13}$	$9.34x10^{-12}$	$1.55x10^{-14}$	$5.09x10^{-12}$	$3.26x10^{-13}$	$1.97x10^{-12}$	$2.55x10^{-12}$	$1.66x10^{-12}$	$3.51x10^{-13}$	$1.45x10^{-13}$
Total PCDD	$3.43x10^{-12}$	$3.59x10^{-12}$	$2.80x10^{-10}$	$3.68x10^{-13}$	$7.79x10^{-11}$	$6.00x10^{-12}$	$5.87x10^{-11}$	$7.61x10^{-11}$	$4.92x10^{-11}$	$6.17x10^{-12}$	$3.14x10^{-12}$
Total PCDF	$2.39x10^{-11}$	$2.51x10^{-11}$	$1.95x10^{-09}$	$2.57x10^{-12}$	$5.43x10^{-10}$	$4.18x10^{-11}$	$4.09x10^{-10}$	$5.31x10^{-10}$	$3.43x10^{-10}$	$4.30x10^{-11}$	$2.19x10^{-11}$
PCDD (TEQ)[a]	$2.63x10^{-13}$	$2.75x10^{-13}$	$2.15x10^{-11}$	$2.82x10^{-14}$	$5.96x10^{-12}$	$4.59x10^{-13}$	$4.49x10^{-12}$	$5.83x10^{-12}$	$3.77x10^{-12}$	$4.73x10^{-13}$	$2.40x10^{-13}$
PCDF (TEQ) [a]	$8.19x10^{-13}$	$8.59x10^{-13}$	$6.70x10^{-11}$	$8.80x10^{-14}$	$1.86x10^{-11}$	$1.43x10^{-12}$	$1.40x10^{-11}$	$1.82x10^{-11}$	$1.18x10^{-11}$	$1.47x10^{-12}$	$7.50x10^{-13}$

a) (TEQ) = toxic equivalency; µg/m³ = micrograms per cubic metres.

Table A-9 (DAR, Section 7, Appendix 7A, Table 7A2-12) Maximum Annual Dioxin/Furan Average Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Misery Camp	Pellatt Lake Cabin	Polar Lake Station	Salmita Airstrip	Treeline Lodge	TSP1	TSP2	TSP3	Jay Pit Boundary	MPOI
2378 - TCDD	$2.10x10^{-13}$	$1.75x10^{-14}$	$8.19x10^{-13}$	$1.71x10^{-14}$	$1.61x10^{-14}$	$2.05x10^{-12}$	$9.06x10^{-13}$	$4.29x10^{-12}$	$1.50x10^{-13}$	$1.75x10^{-11}$
12378 - PeCDD	$3.40x10^{-13}$	$2.84x10^{-14}$	$1.33x10^{-12}$	$2.77x10^{-14}$	$2.61x10^{-14}$	$3.32x10^{-12}$	$1.47x10^{-12}$	$6.93x10^{-12}$	$2.42x10^{-13}$	$2.83x10^{-11}$
123478 - HxCDD	$7.42x10^{-14}$	$6.19x10^{-15}$	$2.89x10^{-13}$	$6.05x10^{-15}$	$5.70x10^{-15}$	$7.25x10^{-13}$	$3.20x10^{-13}$	$1.51x10^{-12}$	$5.29x10^{-14}$	$6.18x10^{-12}$
123678 - HxCDD	$1.98x10^{-13}$	$1.65x10^{-14}$	$7.71x10^{-13}$	$1.61x10^{-14}$	$1.52x10^{-14}$	$1.93x10^{-12}$	$8.52x10^{-13}$	$4.03x10^{-12}$	$1.41x10^{-13}$	$1.65x10^{-11}$
123789 - HxCDD	$3.03x10^{-13}$	$2.53x10^{-14}$	$1.18x10^{-12}$	$2.47x10^{-14}$	$2.33x10^{-14}$	$2.96x10^{-12}$	$1.31x10^{-12}$	$6.18x10^{-12}$	$2.16x10^{-13}$	$2.52x10^{-11}$
1234678 - HpCDD	$5.62x10^{-13}$	$4.69x10^{-14}$	$2.19x10^{-12}$	$4.58x10^{-14}$	$4.31x10^{-14}$	$5.49x10^{-12}$	$2.42x10^{-12}$	$1.15x10^{-11}$	$4.00x10^{-13}$	$4.68x10^{-11}$
1,2,3,4,6,7,8,9-Octa CDD	$5.72x10^{-13}$	$4.77x10^{-14}$	$2.23x10^{-12}$	$4.66x10^{-14}$	$4.39x10^{-14}$	$5.58x10^{-12}$	$2.46x10^{-12}$	$1.17x10^{-11}$	$4.07x10^{-13}$	$4.76x10^{-11}$
2378 - TCDF	$3.44x10^{-12}$	$2.87x10^{-13}$	$1.34x10^{-11}$	$2.81x10^{-13}$	$2.64x10^{-13}$	$3.37x10^{-11}$	$1.48x10^{-11}$	$7.03x10^{-11}$	$2.46x10^{-12}$	$2.87x10^{-10}$
12378 - PeCDF	$1.80x10^{-12}$	$1.50x10^{-13}$	$7.02x10^{-12}$	$1.47x10^{-13}$	$1.38x10^{-13}$	$1.76x10^{-11}$	$7.76x10^{-12}$	$3.67x10^{-11}$	$1.28x10^{-12}$	$1.50x10^{-10}$
23478 - PeCDF	$3.10x10^{-12}$	$2.59x10^{-13}$	$1.21x10^{-11}$	$2.53x10^{-13}$	$2.38x10^{-13}$	$3.03x10^{-11}$	$1.34x10^{-11}$	$6.32x10^{-11}$	$2.21x10^{-12}$	$2.58x10^{-10}$
123478 - HxCDF	$3.15x10^{-12}$	$2.63x10^{-13}$	$1.23x10^{-11}$	$2.57x10^{-13}$	$2.42x10^{-13}$	$3.08x10^{-11}$	$1.36x10^{-11}$	$6.43x10^{-11}$	$2.25x10^{-12}$	$2.62x10^{-10}$
123678 - HxCDF	$1.69x10^{-12}$	$1.41x10^{-13}$	$6.60x10^{-12}$	$1.38x10^{-13}$	$1.30x10^{-13}$	$1.65x10^{-11}$	$7.30x10^{-12}$	$3.45x10^{-11}$	$1.21x10^{-12}$	$1.41x10^{-10}$
234678 - HxCDF	$6.55x10^{-13}$	$5.46x10^{-14}$	$2.55x10^{-12}$	$5.34x10^{-14}$	$5.03x10^{-14}$	$6.40x10^{-12}$	$2.82x10^{-12}$	$1.34x10^{-11}$	$4.67x10^{-13}$	$5.45x10^{-11}$
123789 - HxCDF	$6.80x10^{-14}$	$5.67x10^{-15}$	$2.65x10^{-13}$	$5.55x10^{-15}$	$5.22x10^{-15}$	$6.65x10^{-13}$	$2.93x10^{-13}$	$1.39x10^{-12}$	$4.85x10^{-14}$	$5.66x10^{-12}$
1234678 - HpCDF	$2.57x10^{-12}$	$2.14x10^{-13}$	$1.00x10^{-11}$	$2.10x10^{-13}$	$1.97x10^{-13}$	$2.51x10^{-11}$	$1.11x10^{-11}$	$5.24x10^{-11}$	$1.83x10^{-12}$	$2.14x10^{-10}$
1234789 - HpCDF	$2.91x10^{-13}$	$2.42x10^{-14}$	$1.13x10^{-12}$	$2.37x10^{-14}$	$2.23x10^{-14}$	$2.84x10^{-12}$	$1.25x10^{-12}$	$5.93x10^{-12}$	$2.07x10^{-13}$	$2.42x10^{-11}$
1,2,3,4,6,7,8,9-Octa CDF	$2.66x10^{-13}$	$2.22x10^{-14}$	$1.04x10^{-12}$	$2.17x10^{-14}$	$2.05x10^{-14}$	$2.60x10^{-12}$	$1.15x10^{-12}$	$5.43x10^{-12}$	$1.90x10^{-13}$	$2.22x10^{-11}$
Total PCDD	$5.68x10^{-12}$	$5.82x10^{-13}$	$3.07x10^{-11}$	$5.23x10^{-13}$	$4.86x10^{-13}$	$7.78x10^{-11}$	$3.40x10^{-11}$	$1.63x10^{-10}$	$4.59x10^{-12}$	$3.35x10^{-10}$
Total PCDF	$3.96x10^{-11}$	$4.06x10^{-12}$	$2.14x10^{-10}$	$3.65x10^{-12}$	$3.39x10^{-12}$	$5.42x10^{-10}$	$2.37x10^{-10}$	$1.14x10^{-09}$	$3.20x10^{-11}$	$2.34x10^{-09}$
PCDD (TEQ)[a]	$4.35x10^{-13}$	$4.46x10^{-14}$	$2.35x10^{-12}$	$4.01x10^{-14}$	$3.72x10^{-14}$	$5.95x10^{-12}$	$2.60x10^{-12}$	$1.25x10^{-11}$	$3.52x10^{-13}$	$2.57x10^{-11}$
PCDF (TEQ) [a]	$1.36x10^{-12}$	$1.39x10^{-13}$	$7.34x10^{-12}$	$1.25x10^{-13}$	$1.16x10^{-13}$	$1.86x10^{-11}$	$8.12x10^{-12}$	$3.89x10^{-11}$	$1.10x10^{-12}$	$8.00x10^{-11}$

a) (TEQ) = toxic equivalency; µg/m³ = micrograms per cubic metres.

Table A-10 (DAR, Section 7, Appendix 7A, Table 7A2-13) Maximum 1-Hour PAH Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA	13DDJPB	CAMS Polar Explosives	Courageous Lake Lodge	Diavik Camp	Diavik TK Camp	Ekati Airport Station

	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00090	0.05301	0.00084	0.05278	0.00202	0.00467	0.00007	0.00021	0.00679	0.00740	0.00260	0.00288	0.00214	0.00638
1-methylphenanthrene	0.00004	0.00238	0.00004	0.00237	0.00009	0.00021	0.00000	0.00001	0.00031	0.00033	0.00012	0.00013	0.00010	0.00029
2-methylanthracene	0.00002	0.00146	0.00002	0.00145	0.00006	0.00013	0.00000	0.00001	0.00019	0.00020	0.00007	0.00008	0.00006	0.00018
2-methylfluorene	0.00000	0.00005	0.00000	0.00005	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
2-methylnaphthalene	0.00145	0.08569	0.00136	0.08532	0.00326	0.00755	0.00012	0.00034	0.01098	0.01196	0.00421	0.00466	0.00346	0.01031
2-methylphenanthrene	0.00010	0.00589	0.00009	0.00586	0.00022	0.00052	0.00001	0.00002	0.00075	0.00082	0.00029	0.00032	0.00024	0.00071
2-methylpyrene	0.00001	0.00044	0.00001	0.00043	0.00002	0.00004	0.00000	0.00000	0.00006	0.00006	0.00002	0.00002	0.00002	0.00005
3-methyldibenzothiophene	0.00000	0.00009	0.00000	0.00009	0.00000	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
3-methylphenanthrene	0.00007	0.00425	0.00007	0.00423	0.00016	0.00037	0.00001	0.00002	0.00054	0.00059	0.00021	0.00023	0.00017	0.00051
4-methylphenanthrene plus 9-methylphenanthrene	0.00005	0.00321	0.00005	0.00320	0.00012	0.00028	0.00000	0.00001	0.00041	0.00045	0.00016	0.00017	0.00013	0.00039
4-methyldibenzothiophene	0.00000	0.00006	0.00000	0.00006	0.00000	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
acenaphthene	0.00014	0.00271	0.00017	0.00270	0.00085	0.00086	0.00002	0.00003	0.00690	0.00690	0.00034	0.00034	0.00097	0.00097
acenaphthylene	0.00029	0.00983	0.00035	0.00979	0.00169	0.00170	0.00005	0.00006	0.01360	0.01360	0.00067	0.00067	0.00192	0.00194
acephenanthrylene	0.00003	0.00168	0.00003	0.00168	0.00006	0.00015	0.00000	0.00001	0.00022	0.00023	0.00008	0.00009	0.00007	0.00020
anthracene	0.00004	0.00175	0.00005	0.00175	0.00023	0.00023	0.00001	0.00001	0.00182	0.00182	0.00009	0.00010	0.00026	0.00026
benz(a)anthracene	0.00002	0.00042	0.00002	0.00042	0.00011	0.00011	0.00000	0.00000	0.00092	0.00092	0.00005	0.00005	0.00013	0.00013
benzo(a)fluorene	0.00001	0.00053	0.00001	0.00053	0.00002	0.00005	0.00000	0.00000	0.00007	0.00007	0.00003	0.00003	0.00002	0.00006
benzo(a)pyrene	0.00001	0.00023	0.00001	0.00023	0.00005	0.00005	0.00000	0.00000	0.00038	0.00038	0.00002	0.00002	0.00005	0.00005
benzo(b)fluoranthene	0.00004	0.00194	0.00005	0.00193	0.00021	0.00021	0.00001	0.00001	0.00164	0.00164	0.00010	0.00011	0.00023	0.00024
benzo(e)pyrene	0.00000	0.00003	0.00000	0.00003	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)fluoranthene	0.00001	0.00082	0.00001	0.00081	0.00003	0.00007	0.00000	0.00000	0.00010	0.00011	0.00004	0.00004	0.00003	0.00010
benzo(g,h,i)perylene	0.00002	0.00053	0.00002	0.00053	0.00010	0.00010	0.00000	0.00000	0.00082	0.00082	0.00004	0.00004	0.00012	0.00012
benzo(k)fluoranthene	0.00001	0.00022	0.00001	0.00022	0.00004	0.00004	0.00000	0.00000	0.00032	0.00032	0.00002	0.00002	0.00005	0.00005
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00001	0.00001
chrysene	0.00004	0.00047	0.00005	0.00047	0.00028	0.00028	0.00001	0.00001	0.00225	0.00225	0.00011	0.00011	0.00032	0.00032
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00000	0.00029	0.00000	0.00029	0.00001	0.00003	0.00000	0.00000	0.00004	0.00004	0.00001	0.00002	0.00001	0.00003
dibenzo(a,h)anthracene	0.00001	0.00061	0.00001	0.00060	0.00006	0.00006	0.00000	0.00000	0.00051	0.00051	0.00003	0.00003	0.00007	0.00007
dibenzothiophene	0.00000	0.00003	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
fluoranthene	0.00014	0.00743	0.00017	0.00740	0.00075	0.00075	0.00002	0.00004	0.00597	0.00597	0.00037	0.00041	0.00085	0.00089
fluorene	0.00040	0.01400	0.00049	0.01394	0.00235	0.00236	0.00007	0.00009	0.01887	0.01887	0.00094	0.00094	0.00267	0.00269
indeno(1,2,3-cd)fluoranthene	0.00000	0.00002	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00001	0.00001	0.00001	0.00001	0.00008	0.00008	0.00000	0.00000	0.00061	0.00061	0.00003	0.00003	0.00009	0.00009
indeno(1,2,3-w)pyrene	0.00001	0.00037	0.00001	0.00037	0.00001	0.00003	0.00000	0.00000	0.00005	0.00005	0.00002	0.00002	0.00001	0.00004
naphthalene	0.00457	0.20985	0.00540	0.20895	0.02405	0.02422	0.00076	0.00109	0.19328	0.19328	0.01063	0.01154	0.02728	0.02754
nitro-pyrene	0.00001	0.00033	0.00001	0.00033	0.00001	0.00003	0.00000	0.00000	0.00004	0.00005	0.00002	0.00002	0.00001	0.00004
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00111	0.01306	0.00143	0.01300	0.00741	0.00742	0.00019	0.00021	0.05989	0.05989	0.00296	0.00296	0.00843	0.00844
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00017	0.01008	0.00017	0.01004	0.00070	0.00089	0.00002	0.00004	0.00552	0.00552	0.00050	0.00055	0.00079	0.00121

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-10 (DAR, Section 7, Appendix 7A, Table 7A2-13) Maximum 1-Hour PAH Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00259	0.00913	0.00166	0.00257	0.00079	0.00122	0.00097	0.00261	0.00401	0.01154	0.00012	0.00057	0.00139	0.00223
1-methylphenanthrene	0.00012	0.00041	0.00007	0.00012	0.00004	0.00006	0.00004	0.00012	0.00018	0.00052	0.00001	0.00003	0.00006	0.00010
2-methylanthracene	0.00007	0.00025	0.00005	0.00007	0.00002	0.00003	0.00003	0.00007	0.00011	0.00032	0.00000	0.00002	0.00004	0.00006
2-methylfluorene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00419	0.01476	0.00268	0.00416	0.00128	0.00198	0.00157	0.00421	0.00649	0.01866	0.00020	0.00091	0.00225	0.00361
2-methylphenanthrene	0.00029	0.00101	0.00018	0.00029	0.00009	0.00014	0.00011	0.00029	0.00045	0.00128	0.00001	0.00006	0.00015	0.00025
2-methylpyrene	0.00002	0.00008	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00003	0.00010	0.00000	0.00000	0.00001	0.00002
3-methyldibenzothiophene	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00021	0.00073	0.00013	0.00021	0.00006	0.00010	0.00008	0.00021	0.00032	0.00093	0.00001	0.00005	0.00011	0.00018
4-methylphenanthrene plus 9-methylphenanthrene	0.00016	0.00055	0.00010	0.00016	0.00005	0.00007	0.00006	0.00016	0.00024	0.00070	0.00001	0.00003	0.00008	0.00014
4-methyldibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
acenaphthene	0.00083	0.00083	0.00038	0.00038	0.00029	0.00029	0.00015	0.00015	0.00028	0.00059	0.00002	0.00003	0.00029	0.00029
acenaphthylene	0.00164	0.00170	0.00075	0.00076	0.00058	0.00058	0.00029	0.00048	0.00078	0.00215	0.00004	0.00010	0.00057	0.00057
acephenanthrylene	0.00008	0.00029	0.00005	0.00008	0.00003	0.00004	0.00003	0.00008	0.00013	0.00037	0.00000	0.00002	0.00004	0.00007
anthracene	0.00022	0.00030	0.00010	0.00010	0.00008	0.00008	0.00004	0.00009	0.00014	0.00038	0.00001	0.00002	0.00008	0.00008
benz(a)anthracene	0.00011	0.00011	0.00005	0.00005	0.00004	0.00004	0.00002	0.00002	0.00004	0.00009	0.00000	0.00000	0.00004	0.00004
benzo(a)fluorene	0.00003	0.00009	0.00002	0.00003	0.00001	0.00001	0.00001	0.00003	0.00004	0.00012	0.00000	0.00001	0.00001	0.00002
benzo(a)pyrene	0.00005	0.00005	0.00002	0.00002	0.00002	0.00002	0.00001	0.00001	0.00002	0.00005	0.00000	0.00000	0.00002	0.00002
benzo(b)fluoranthene	0.00020	0.00034	0.00009	0.00009	0.00007	0.00007	0.00004	0.00010	0.00015	0.00042	0.00001	0.00002	0.00007	0.00008
benzo(e)pyrene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)fluoranthene	0.00004	0.00014	0.00003	0.00004	0.00001	0.00002	0.00001	0.00004	0.00006	0.00018	0.00000	0.00001	0.00002	0.00003
benzo(g,h,i)perylene	0.00010	0.00010	0.00005	0.00005	0.00003	0.00003	0.00002	0.00003	0.00004	0.00012	0.00000	0.00001	0.00003	0.00003
benzo(k)fluoranthene	0.00004	0.00004	0.00002	0.00002	0.00001	0.00001	0.00001	0.00001	0.00002	0.00005	0.00000	0.00000	0.00001	0.00001
biphenyl	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
chrysene	0.00027	0.00027	0.00012	0.00012	0.00009	0.00009	0.00005	0.00005	0.00009	0.00010	0.00001	0.00001	0.00009	0.00009
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00001	0.00005	0.00001	0.00001	0.00000	0.00001	0.00001	0.00001	0.00002	0.00006	0.00000	0.00000	0.00001	0.00001
dibenzo(a,h)anthracene	0.00006	0.00010	0.00003	0.00003	0.00002	0.00002	0.00001	0.00003	0.00005	0.00013	0.00000	0.00001	0.00002	0.00003
dibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
fluoranthene	0.00073	0.00128	0.00033	0.00036	0.00026	0.00026	0.00014	0.00037	0.00057	0.00162	0.00002	0.00008	0.00025	0.00031
fluorene	0.00228	0.00242	0.00104	0.00105	0.00080	0.00080	0.00040	0.00069	0.00111	0.00305	0.00006	0.00015	0.00079	0.00079
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00007	0.00007	0.00003	0.00003	0.00003	0.00003	0.00001	0.00001	0.00002	0.00002	0.00000	0.00000	0.00003	0.00003
indeno(1,2,3-w)pyrene	0.00002	0.00006	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00003	0.00008	0.00000	0.00000	0.00001	0.00002
naphthalene	0.02352	0.03627	0.01069	0.01081	0.00829	0.00829	0.00428	0.01032	0.01638	0.04578	0.00068	0.00229	0.00816	0.00886
nitro-pyrene	0.00002	0.00006	0.00001	0.00002	0.00000	0.00001	0.00001	0.00002	0.00002	0.00007	0.00000	0.00000	0.00001	0.00001
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00716	0.00718	0.00329	0.00330	0.00252	0.00252	0.00128	0.00128	0.00233	0.00287	0.00017	0.00021	0.00249	0.00248
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00068	0.00174	0.00032	0.00049	0.00024	0.00024	0.00019	0.00050	0.00076	0.00220	0.00002	0.00011	0.00027	0.00043

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-10 (DAR, Section 7, Appendix 7A, Table 7A2-13) Maximum 1-Hour PAH Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00014	0.00028	0.00011	0.00026	0.00262	0.00921	0.00163	0.00215	0.00116	0.00285	0.00162	0.09439	0.01261	0.09439
1-methylphenanthrene	0.00001	0.00001	0.00000	0.00001	0.00012	0.00041	0.00007	0.00010	0.00005	0.00013	0.00007	0.00424	0.00057	0.00424
2-methylanthracene	0.00000	0.00001	0.00000	0.00001	0.00007	0.00025	0.00004	0.00006	0.00003	0.00008	0.00004	0.00260	0.00035	0.00260
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00009	0.00001	0.00009
2-methylnaphthalene	0.00023	0.00046	0.00018	0.00043	0.00423	0.01489	0.00263	0.00347	0.00187	0.00460	0.00262	0.15256	0.02039	0.15256
2-methylphenanthrene	0.00002	0.00003	0.00001	0.00003	0.00029	0.00102	0.00018	0.00024	0.00013	0.00032	0.00018	0.01049	0.00140	0.01049
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00008	0.00001	0.00002	0.00001	0.00002	0.00001	0.00078	0.00010	0.00078
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00016	0.00002	0.00016
3-methylphenanthrene	0.00001	0.00002	0.00001	0.00002	0.00021	0.00074	0.00013	0.00017	0.00009	0.00023	0.00013	0.00757	0.00101	0.00757
4-methylphenanthrene plus 9-methylphenanthrene	0.00001	0.00002	0.00001	0.00002	0.00016	0.00056	0.00010	0.00013	0.00007	0.00017	0.00010	0.00572	0.00076	0.00572
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00001	0.00010
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00003	0.00003
acenaphthene	0.00003	0.00004	0.00004	0.00004	0.00084	0.00084	0.00043	0.00043	0.00045	0.00045	0.00022	0.00482	0.00659	0.00660
acenaphthylene	0.00007	0.00009	0.00008	0.00010	0.00167	0.00171	0.00084	0.00085	0.00090	0.00090	0.00045	0.01750	0.01294	0.01750
acephenanthrylene	0.00000	0.00001	0.00000	0.00001	0.00008	0.00029	0.00005	0.00007	0.00004	0.00009	0.00005	0.00300	0.00040	0.00300
anthracene	0.00001	0.00001	0.00001	0.00001	0.00022	0.00031	0.00011	0.00011	0.00012	0.00012	0.00006	0.00312	0.00173	0.00312
benz(a)anthracene	0.00000	0.00001	0.00001	0.00001	0.00011	0.00011	0.00006	0.00006	0.00006	0.00006	0.00003	0.00074	0.00088	0.00088
benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00009	0.00002	0.00002	0.00001	0.00003	0.00002	0.00094	0.00013	0.00094
benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00005	0.00005	0.00002	0.00002	0.00002	0.00002	0.00001	0.00041	0.00036	0.00041
benzo(b)fluoranthene	0.00001	0.00001	0.00001	0.00001	0.00020	0.00034	0.00010	0.00010	0.00011	0.00011	0.00006	0.00346	0.00157	0.00346
benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00002	0.00006
benzo(g,h,i)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00004	0.00014	0.00003	0.00003	0.00002	0.00004	0.00002	0.00145	0.00019	0.00145
benzo(g,h,i)perylene	0.00000	0.00001	0.00000	0.00001	0.00010	0.00010	0.00005	0.00005	0.00005	0.00005	0.00003	0.00094	0.00079	0.00094
benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00004	0.00004	0.00002	0.00002	0.00002	0.00002	0.00001	0.00039	0.00031	0.00039
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00001	0.00003	0.00003	0.00000	0.00000	0.00014	0.00014
chrysene	0.00001	0.00001	0.00001	0.00001	0.00027	0.00027	0.00014	0.00014	0.00015	0.00015	0.00007	0.00084	0.00214	0.00214
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00005	0.00001	0.00001	0.00001	0.00002	0.00001	0.00051	0.00007	0.00051
dibenzo(a,h)anthracene	0.00000	0.00000	0.00000	0.00000	0.00006	0.00011	0.00003	0.00003	0.00003	0.00003	0.00002	0.00108	0.00049	0.00108
dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
fluoranthene	0.00004	0.00005	0.00004	0.00006	0.00074	0.00129	0.00037	0.00037	0.00040	0.00040	0.00023	0.01323	0.00571	0.01323
fluorene	0.00010	0.00013	0.00011	0.00013	0.00231	0.00244	0.00117	0.00117	0.00125	0.00124	0.00062	0.02492	0.01795	0.02492
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00000	0.00004
indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00000	0.00000	0.00007	0.00007	0.00004	0.00004	0.00004	0.00004	0.00002	0.00002	0.00058	0.00058
indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00006	0.00001	0.00001	0.00001	0.00002	0.00001	0.00066	0.00009	0.00066
naphthalene	0.00115	0.00152	0.00120	0.00172	0.02389	0.03660	0.01197	0.01200	0.01280	0.01269	0.00669	0.37365	0.18616	0.37365
nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00006	0.00001	0.00001	0.00001	0.00002	0.00001	0.00058	0.00008	0.00058
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
phenanthrene	0.00028	0.00030	0.00030	0.00033	0.00728	0.00730	0.00370	0.00370	0.00392	0.00392	0.00185	0.02325	0.05687	0.05692
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
pyrene	0.00004	0.00006	0.00004	0.00007	0.00069	0.00176	0.00034	0.00041	0.00037	0.00054	0.00031	0.01795	0.00529	0.01795

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-11 (DAR, Section 7, Appendix 7A, Table 7A2-14) Maximum 24-Hour PAH Predictions at Selected Locations Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00027	0.02212	0.00024	0.01367	0.00081	0.00217	0.00002	0.00006	0.00320	0.00334	0.00105	0.00106	0.00140	0.00423
1-methylphenanthrene	0.00001	0.00099	0.00001	0.00061	0.00004	0.00010	0.00000	0.00000	0.00014	0.00015	0.00005	0.00005	0.00006	0.00019
2-methylanthracene	0.00001	0.00061	0.00001	0.00038	0.00002	0.00006	0.00000	0.00000	0.00009	0.00009	0.00003	0.00003	0.00004	0.00012
2-methylfluorene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00043	0.03576	0.00039	0.02209	0.00130	0.00351	0.00003	0.00009	0.00518	0.00540	0.00169	0.00171	0.00226	0.00683
2-methylphenanthrene	0.00003	0.00246	0.00003	0.00152	0.00009	0.00024	0.00000	0.00001	0.00036	0.00037	0.00012	0.00012	0.00016	0.00047
2-methylpyrene	0.00000	0.00018	0.00000	0.00011	0.00001	0.00002	0.00000	0.00000	0.00003	0.00003	0.00001	0.00001	0.00001	0.00003
3-methyldibenzothiophene	0.00000	0.00004	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
3-methylphenanthrene	0.00002	0.00177	0.00002	0.00110	0.00006	0.00017	0.00000	0.00000	0.00026	0.00027	0.00008	0.00008	0.00011	0.00034
4-methylphenanthrene plus 9-methylphenanthrene	0.00002	0.00134	0.00001	0.00083	0.00005	0.00013	0.00000	0.00000	0.00019	0.00020	0.00006	0.00006	0.00008	0.00026
4-methyldibenzothiophene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
acenaphthene	0.00002	0.00113	0.00006	0.00070	0.00023	0.00023	0.00001	0.00001	0.00065	0.00065	0.00007	0.00008	0.00024	0.00024
acenaphthylene	0.00005	0.00410	0.00013	0.00254	0.00045	0.00046	0.00001	0.00002	0.00128	0.00129	0.00020	0.00020	0.00048	0.00078
acephenanthrylene	0.00001	0.00070	0.00001	0.00043	0.00003	0.00007	0.00000	0.00000	0.00010	0.00011	0.00003	0.00003	0.00004	0.00013
anthracene	0.00001	0.00073	0.00002	0.00045	0.00006	0.00007	0.00000	0.00000	0.00018	0.00018	0.00004	0.00004	0.00006	0.00014
benz(a)anthracene	0.00000	0.00017	0.00001	0.00011	0.00003	0.00003	0.00000	0.00000	0.00009	0.00009	0.00001	0.00001	0.00003	0.00003
benzo(a)fluorene	0.00000	0.00022	0.00000	0.00014	0.00001	0.00002	0.00000	0.00000	0.00003	0.00003	0.00001	0.00001	0.00001	0.00004
benzo(a)pyrene	0.00000	0.00010	0.00000	0.00006	0.00001	0.00001	0.00000	0.00000	0.00004	0.00004	0.00000	0.00000	0.00001	0.00002
benzo(b)fluoranthene	0.00001	0.00081	0.00002	0.00050	0.00006	0.00008	0.00000	0.00000	0.00016	0.00017	0.00004	0.00004	0.00006	0.00016
benzo(e)pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)fluoranthene	0.00000	0.00034	0.00000	0.00021	0.00001	0.00003	0.00000	0.00000	0.00005	0.00005	0.00002	0.00002	0.00002	0.00007
benzo(g,h,i)perylene	0.00000	0.00022	0.00001	0.00014	0.00003	0.00003	0.00000	0.00000	0.00008	0.00008	0.00001	0.00001	0.00003	0.00004
benzo(k)fluoranthene	0.00000	0.00009	0.00000	0.00006	0.00001	0.00001	0.00000	0.00000	0.00003	0.00003	0.00000	0.00000	0.00001	0.00002
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
chrysene	0.00001	0.00020	0.00002	0.00012	0.00007	0.00007	0.00000	0.00000	0.00021	0.00021	0.00002	0.00002	0.00008	0.00008
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00000	0.00012	0.00000	0.00007	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00002
dibenzo(a,h)anthracene	0.00000	0.00025	0.00001	0.00016	0.00002	0.00002	0.00000	0.00000	0.00005	0.00005	0.00001	0.00001	0.00002	0.00005
dibenzothiophene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
fluoranthene	0.00004	0.00310	0.00007	0.00192	0.00020	0.00030	0.00001	0.00001	0.00060	0.00061	0.00015	0.00015	0.00021	0.00059
fluorene	0.00007	0.00584	0.00019	0.00361	0.00063	0.00064	0.00002	0.00002	0.00179	0.00180	0.00028	0.00028	0.00067	0.00112
indeno(1,2,3-cd)fluoranthene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00001	0.00001	0.00002	0.00002	0.00000	0.00000	0.00006	0.00006	0.00001	0.00001	0.00002	0.00002
indeno(1,2,3-w)pyrene	0.00000	0.00015	0.00000	0.00009	0.00001	0.00002	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00003
naphthalene	0.00108	0.08760	0.00211	0.05412	0.00647	0.00861	0.00019	0.00033	0.01941	0.01962	0.00458	0.00462	0.00685	0.01674
nitro-pyrene	0.00000	0.00014	0.00000	0.00008	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00003
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00019	0.00545	0.00053	0.00337	0.00199	0.00200	0.00004	0.00004	0.00557	0.00557	0.00058	0.00060	0.00211	0.00212
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00005	0.00421	0.00007	0.00260	0.00019	0.00041	0.00001	0.00001	0.00061	0.00064	0.00020	0.00021	0.00027	0.00081

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-11 (DAR, Section 7, Appendix 7A, Table 7A2-14) Maximum 24-Hour PAH Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00185	0.00608	0.00059	0.00126	0.00059	0.00072	0.00021	0.00182	0.00144	0.00406	0.00003	0.00013	0.00049	0.00068
1-methylphenanthrene	0.00008	0.00027	0.00003	0.00006	0.00003	0.00003	0.00001	0.00008	0.00006	0.00018	0.00000	0.00001	0.00002	0.00003
2-methylanthracene	0.00005	0.00017	0.00002	0.00003	0.00002	0.00002	0.00001	0.00005	0.00004	0.00011	0.00000	0.00000	0.00001	0.00002
2-methylfluorene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00299	0.00983	0.00096	0.00204	0.00095	0.00116	0.00035	0.00294	0.00233	0.00656	0.00004	0.00020	0.00079	0.00110
2-methylphenanthrene	0.00021	0.00068	0.00007	0.00014	0.00007	0.00008	0.00002	0.00020	0.00016	0.00045	0.00000	0.00001	0.00005	0.00008
2-methylpyrene	0.00002	0.00005	0.00000	0.00001	0.00000	0.00001	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00001
3-methyldibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00015	0.00049	0.00005	0.00010	0.00005	0.00006	0.00002	0.00015	0.00012	0.00033	0.00000	0.00001	0.00004	0.00005
4-methylphenanthrene plus 9-methylphenanthrene	0.00011	0.00037	0.00004	0.00008	0.00004	0.00004	0.00001	0.00011	0.00009	0.00025	0.00000	0.00001	0.00003	0.00004
4-methyldibenzothiophene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
acenaphthene	0.00011	0.00031	0.00015	0.00015	0.00008	0.00008	0.00003	0.00009	0.00008	0.00021	0.00001	0.00001	0.00007	0.00006
acenaphthylene	0.00034	0.00113	0.00031	0.00031	0.00017	0.00017	0.00006	0.00034	0.00027	0.00075	0.00001	0.00002	0.00013	0.00013
acephenanthrylene	0.00006	0.00019	0.00002	0.00004	0.00002	0.00002	0.00001	0.00006	0.00005	0.00013	0.00000	0.00000	0.00002	0.00002
anthracene	0.00006	0.00020	0.00004	0.00004	0.00002	0.00002	0.00001	0.00006	0.00005	0.00013	0.00000	0.00000	0.00002	0.00002
benz(a)anthracene	0.00002	0.00005	0.00002	0.00002	0.00001	0.00001	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00001	0.00001
benzo(a)fluorene	0.00002	0.00006	0.00001	0.00001	0.00001	0.00001	0.00000	0.00002	0.00001	0.00004	0.00000	0.00000	0.00000	0.00001
benzo(a)pyrene	0.00001	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
benzo(b)fluoranthene	0.00007	0.00022	0.00004	0.00005	0.00002	0.00003	0.00001	0.00007	0.00005	0.00015	0.00000	0.00000	0.00002	0.00003
benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)fluoranthene	0.00003	0.00009	0.00001	0.00002	0.00001	0.00001	0.00000	0.00003	0.00002	0.00006	0.00000	0.00000	0.00001	0.00001
benzo(g,h,i)perylene	0.00002	0.00006	0.00002	0.00002	0.00001	0.00001	0.00000	0.00002	0.00001	0.00004	0.00000	0.00000	0.00001	0.00001
benzo(k)fluoranthene	0.00001	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
chrysene	0.00003	0.00005	0.00005	0.00005	0.00003	0.00003	0.00001	0.00002	0.00002	0.00004	0.00000	0.00000	0.00002	0.00002
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00001	0.00003	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
dibenzo(a,h)anthracene	0.00002	0.00007	0.00001	0.00001	0.00001	0.00001	0.00000	0.00002	0.00002	0.00005	0.00000	0.00000	0.00001	0.00001
dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
fluoranthene	0.00026	0.00085	0.00014	0.00018	0.00009	0.00010	0.00004	0.00026	0.00020	0.00057	0.00001	0.00002	0.00007	0.00010
fluorene	0.00049	0.00161	0.00043	0.00043	0.00023	0.00023	0.00009	0.00048	0.00038	0.00107	0.00002	0.00003	0.00019	0.00019
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
indeno(1,2,3-w)pyrene	0.00001	0.00004	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000
naphthalene	0.00801	0.02408	0.00444	0.00502	0.00256	0.00306	0.00118	0.00722	0.00582	0.01611	0.00019	0.00051	0.00222	0.00272
nitro-pyrene	0.00001	0.00004	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00080	0.00150	0.00133	0.00132	0.00070	0.00070	0.00019	0.00045	0.00044	0.00100	0.00005	0.00005	0.00056	0.00056
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00036	0.00116	0.00013	0.00024	0.00011	0.00014	0.00005	0.00035	0.00028	0.00077	0.00001	0.00002	0.00009	0.00013

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-11 (DAR, Section 7, Appendix 7A, Table 7A2-14) Maximum 24-Hour PAH Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00003	0.00007	0.00003	0.00007	0.00182	0.00594	0.00068	0.00079	0.00044	0.00067	0.00045	0.06272	0.00733	0.06272
1-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00008	0.00027	0.00003	0.00004	0.00002	0.00003	0.00002	0.00282	0.00033	0.00282
2-methylanthracene	0.00000	0.00000	0.00000	0.00000	0.00005	0.00016	0.00002	0.00002	0.00001	0.00002	0.00001	0.00173	0.00020	0.00173
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
2-methylnaphthalene	0.00005	0.00011	0.00004	0.00011	0.00294	0.00961	0.00111	0.00128	0.00071	0.00108	0.00073	0.10139	0.01185	0.10139
2-methylphenanthrene	0.00000	0.00001	0.00000	0.00001	0.00020	0.00066	0.00008	0.00009	0.00005	0.00007	0.00005	0.00697	0.00081	0.00697
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00005	0.00001	0.00001	0.00000	0.00001	0.00000	0.00052	0.00006	0.00052
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00011	0.00001	0.00011
3-methylphenanthrene	0.00000	0.00001	0.00000	0.00001	0.00015	0.00048	0.00005	0.00006	0.00004	0.00005	0.00004	0.00503	0.00059	0.00503
4-methylphenanthrene plus 9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00011	0.00036	0.00004	0.00005	0.00003	0.00004	0.00003	0.00380	0.00044	0.00380
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00007	0.00001	0.00007
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
acenaphthene	0.00002	0.00002	0.00002	0.00002	0.00011	0.00030	0.00007	0.00007	0.00013	0.00014	0.00007	0.00320	0.00087	0.00320
acenaphthylene	0.00003	0.00004	0.00003	0.00004	0.00034	0.00110	0.00016	0.00015	0.00027	0.00029	0.00015	0.01163	0.00175	0.01163
acephenanthrylene	0.00000	0.00000	0.00000	0.00000	0.00006	0.00019	0.00002	0.00003	0.00001	0.00002	0.00001	0.00199	0.00023	0.00199
anthracene	0.00000	0.00001	0.00000	0.00001	0.00006	0.00020	0.00002	0.00003	0.00004	0.00004	0.00002	0.00207	0.00024	0.00207
benz(a)anthracene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00005	0.00001	0.00001	0.00002	0.00002	0.00001	0.00049	0.00012	0.00049
benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00006	0.00001	0.00001	0.00000	0.00001	0.00000	0.00063	0.00007	0.00063
benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00000	0.00000	0.00001	0.00001	0.00000	0.00027	0.00005	0.00027
benzo(b)fluoranthene	0.00000	0.00001	0.00000	0.00001	0.00007	0.00022	0.00003	0.00003	0.00003	0.00004	0.00002	0.00230	0.00027	0.00230
benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00001	0.00004
benzo(g,h,i)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00009	0.00001	0.00001	0.00001	0.00001	0.00001	0.00097	0.00011	0.00097
benzo(g,h,i)perylene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00006	0.00001	0.00001	0.00002	0.00002	0.00001	0.00063	0.00011	0.00063
benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00001	0.00001	0.00000	0.00026	0.00004	0.00026
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00005
chrysene	0.00000	0.00001	0.00000	0.00001	0.00003	0.00005	0.00002	0.00002	0.00004	0.00004	0.00002	0.00056	0.00027	0.00056
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00034	0.00004	0.00034
dibenzo(a,h)anthracene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00007	0.00001	0.00001	0.00001	0.00001	0.00001	0.00072	0.00008	0.00072
dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00000	0.00004
fluoranthene	0.00002	0.00002	0.00002	0.00002	0.00026	0.00083	0.00010	0.00011	0.00013	0.00014	0.00007	0.00880	0.00103	0.00880
fluorene	0.00005	0.00006	0.00004	0.00005	0.00048	0.00157	0.00022	0.00022	0.00038	0.00041	0.00021	0.01656	0.00244	0.01656
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00002
indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00007	0.00007
indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00004	0.00000	0.00001	0.00000	0.00000	0.00000	0.00044	0.00005	0.00044
naphthalene	0.00052	0.00068	0.00049	0.00065	0.00788	0.02354	0.00307	0.00316	0.00400	0.00446	0.00243	0.24832	0.02902	0.24832
nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00039	0.00005	0.00039
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00013	0.00014	0.00012	0.00013	0.00076	0.00147	0.00060	0.00059	0.00112	0.00115	0.00061	0.01545	0.00721	0.01545
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00002	0.00002	0.00002	0.00002	0.00035	0.00113	0.00013	0.00015	0.00012	0.00015	0.00009	0.01193	0.00139	0.01193

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-12 (DAR, Section 7, Appendix 7A, Table 7A2-15) Maximum Annual PAH Predictions at Selected Locations Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00002	0.00221	0.00002	0.00159	0.00007	0.00014	0.00000	0.00000	0.00026	0.00028	0.00007	0.00011	0.00010	0.00027
1-methylphenanthrene	0.00000	0.00010	0.00000	0.00007	0.00000	0.00001	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
2-methylanthracene	0.00000	0.00006	0.00000	0.00004	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00003	0.00356	0.00003	0.00257	0.00011	0.00022	0.00000	0.00000	0.00042	0.00045	0.00011	0.00017	0.00017	0.00044
2-methylphenanthrene	0.00000	0.00025	0.00000	0.00018	0.00001	0.00002	0.00000	0.00000	0.00003	0.00003	0.00001	0.00001	0.00001	0.00003
2-methylpyrene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00000	0.00018	0.00000	0.00013	0.00001	0.00001	0.00000	0.00000	0.00002	0.00002	0.00001	0.00001	0.00001	0.00002
4-methylphenanthrene plus 9-methylphenanthrene	0.00000	0.00013	0.00000	0.00010	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00000	0.00001	0.00001	0.00002
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
acenaphthene	0.00000	0.00011	0.00000	0.00008	0.00001	0.00001	0.00000	0.00000	0.00005	0.00005	0.00001	0.00001	0.00002	0.00003
acenaphthylene	0.00001	0.00041	0.00001	0.00030	0.00002	0.00004	0.00000	0.00000	0.00011	0.00012	0.00002	0.00003	0.00005	0.00008
acephenanthrylene	0.00000	0.00007	0.00000	0.00005	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001
anthracene	0.00000	0.00007	0.00000	0.00005	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00001	0.00001
benz(a)anthracene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
benzo(a)fluorene	0.00000	0.00002	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(a)pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(b)fluoranthene	0.00000	0.00008	0.00000	0.00006	0.00000	0.00001	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00001	0.00001
benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)fluoranthene	0.00000	0.00003	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)perylene	0.00000	0.00002	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
benzo(k)fluoranthene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
chrysene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
dibenzo(a,h)anthracene	0.00000	0.00003	0.00000	0.00002	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
fluoranthene	0.00000	0.00031	0.00000	0.00022	0.00002	0.00003	0.00000	0.00000	0.00007	0.00007	0.00001	0.00002	0.00003	0.00005
fluorene	0.00001	0.00059	0.00001	0.00042	0.00003	0.00005	0.00000	0.00000	0.00016	0.00017	0.00003	0.00004	0.00007	0.00011
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-w)pyrene	0.00000	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
naphthalene	0.00013	0.00877	0.00013	0.00635	0.00044	0.00071	0.00001	0.00002	0.00207	0.00216	0.00040	0.00055	0.00088	0.00151
nitro-pyrene	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00002	0.00056	0.00002	0.00041	0.00007	0.00008	0.00000	0.00000	0.00036	0.00036	0.00005	0.00006	0.00016	0.00020
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00001	0.00042	0.00001	0.00030	0.00002	0.00003	0.00000	0.00000	0.00008	0.00008	0.00002	0.00002	0.00003	0.00006

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-12 (DAR, Section 7, Appendix 7A, Table 7A2-15) Maximum Annual PAH Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00013	0.00036	0.00005	0.00009	0.00002	0.00004	0.00002	0.00007	0.00014	0.00034	0.00000	0.00000	0.00005	0.00006
1-methylphenanthrene	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
2-methylanthracene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
2-methylnaphthalene	0.00021	0.00059	0.00008	0.00015	0.00003	0.00006	0.00003	0.00012	0.00022	0.00055	0.00000	0.00001	0.00008	0.00010
2-methylphenanthrene	0.00001	0.00004	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001	0.00002	0.00004	0.00000	0.00000	0.00001	0.00001
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
3-methylphenanthrene	0.00001	0.00003	0.00000	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00003	0.00000	0.00000	0.00000	0.00000
4-methylphenanthrene plus 9-methylphenanthrene	0.00001	0.00002	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
acenaphthene	0.00001	0.00002	0.00001	0.00001	0.00000	0.00001	0.00000	0.00001	0.00001	0.00002	0.00000	0.00000	0.00001	0.00001
acenaphthylene	0.00003	0.00008	0.00002	0.00003	0.00001	0.00001	0.00001	0.00002	0.00003	0.00007	0.00000	0.00000	0.00002	0.00002
acephenanthrylene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
anthracene	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
benz(a)anthracene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(b)fluoranthene	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)fluoranthene	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
chrysene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
dibenzo(a,h)anthracene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
fluoranthene	0.00002	0.00006	0.00001	0.00002	0.00001	0.00001	0.00000	0.00001	0.00002	0.00005	0.00000	0.00000	0.00001	0.00001
fluorene	0.00005	0.00011	0.00003	0.00004	0.00001	0.00002	0.00001	0.00002	0.00004	0.00010	0.00000	0.00000	0.00002	0.00002
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
naphthalene	0.00069	0.00159	0.00039	0.00055	0.00019	0.00025	0.00013	0.00033	0.00065	0.00144	0.00002	0.00003	0.00032	0.00033
nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00007	0.00013	0.00007	0.00008	0.00004	0.00004	0.00002	0.00003	0.00006	0.00011	0.00000	0.00000	0.00004	0.00004
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00003	0.00007	0.00001	0.00002	0.00001	0.00001	0.00001	0.00002	0.00003	0.00007	0.00000	0.00000	0.00001	0.00001

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-12 (DAR, Section 7, Appendix 7A, Table 7A2-15) Maximum Annual PAH Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
1-methylnaphthalene	0.00000	0.00000	0.00000	0.00000	0.00013	0.00035	0.00006	0.00008	0.00004	0.00005	0.00003	0.00620	0.00085	0.00620
1-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00028	0.00004	0.00028
2-methylanthracene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00017	0.00002	0.00017
2-methylfluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
2-methylnaphthalene	0.00000	0.00000	0.00000	0.00000	0.00020	0.00057	0.00010	0.00012	0.00007	0.00008	0.00005	0.01002	0.00137	0.01002
2-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00004	0.00001	0.00001	0.00000	0.00001	0.00000	0.00069	0.00009	0.00069
2-methylpyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00001	0.00005
3-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
3-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00050	0.00007	0.00050
4-methylphenanthrene plus 9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0.00038	0.00005	0.00038
4-methyldibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00001
9-methylphenanthrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
acenaphthene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00002	0.00001	0.00001	0.00001	0.00001	0.00000	0.00032	0.00006	0.00032
acenaphthylene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00007	0.00002	0.00002	0.00002	0.00002	0.00001	0.00115	0.00019	0.00115
acephenanthrylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00020	0.00003	0.00020
anthracene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00021	0.00003	0.00021
benz(a)anthracene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00001	0.00005
benzo(a)fluorene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
benzo(a)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00000	0.00003
benzo(b)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00023	0.00004	0.00023
benzo(e)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
benzo(g,h,i)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00010	0.00001	0.00010
benzo(g,h,i)perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00001	0.00006
benzo(k)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00000	0.00003
biphenyl	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
chrysene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00002	0.00006
coronene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
cyclopenta(c,d)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00000	0.00003
dibenzo(a,h)anthracene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00007	0.00001	0.00007
dibenzothiophene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00002	0.00005	0.00001	0.00001	0.00001	0.00001	0.00001	0.00087	0.00013	0.00087
fluorene	0.00000	0.00000	0.00000	0.00000	0.00004	0.00010	0.00003	0.00003	0.00002	0.00002	0.00001	0.00164	0.00027	0.00164
indeno(1,2,3-cd)fluoranthene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-cd)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
indeno(1,2,3-w)pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00001	0.00004
naphthalene	0.00002	0.00002	0.00002	0.00002	0.00068	0.00154	0.00038	0.00040	0.00029	0.00032	0.00019	0.02458	0.00393	0.02458
nitro-pyrene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00001	0.00004
perylene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
phenanthrene	0.00000	0.00000	0.00000	0.00000	0.00007	0.00012	0.00005	0.00005	0.00005	0.00005	0.00003	0.00154	0.00044	0.00154
picene	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
pyrene	0.00000	0.00000	0.00000	0.00000	0.00003	0.00007	0.00002	0.00002	0.00001	0.00001	0.00001	0.00118	0.00018	0.00118

PAH = polycyclic aromatic hydrocarbon; µg/m³ = microgram per cubic metre.

Table A-13 (DAR, Section 7, Appendix 7A, Table 7A2-16) Maximum 1-Hour Metals Predictions at Selected Locations Part A

Maximum 1-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	3.43084	171.41820	2.65211	164.25310	6.60897	2.57957	0.05369	0.10458	6.63464	6.62545	3.38675	2.54483	10.68056	9.86998
antimony	0.00010	0.00476	0.00007	0.00456	0.00018	0.00007	0.00000	0.00000	0.00019	0.00019	0.00009	0.00007	0.00030	0.00027
arsenic	0.00041	0.01992	0.00036	0.01908	0.00090	0.00034	0.00002	0.00002	0.00574	0.00574	0.00073	0.00073	0.00135	0.00115
barium	0.02828	1.39958	0.02228	1.34115	0.05939	0.03275	0.00050	0.00088	0.10556	0.10555	0.02765	0.02089	0.08784	0.08101
beryllium	0.00014	0.00483	0.00014	0.00463	0.00028	0.00010	0.00001	0.00001	0.00419	0.00419	0.00052	0.00052	0.00043	0.00028
cadmium	0.00143	0.04368	0.00171	0.05117	0.00610	0.00606	0.00023	0.00029	0.05956	0.05956	0.00554	0.00558	0.00703	0.00703
chromium	0.00908	0.43798	0.00730	0.42402	0.02316	0.01954	0.00019	0.00030	0.06507	0.06507	0.00862	0.00660	0.02891	0.02597
cobalt	0.00054	0.01817	0.00038	0.02166	0.00142	0.00135	0.00004	0.00005	0.01018	0.01018	0.00094	0.00094	0.00181	0.00176
copper	0.00111	0.04711	0.00088	0.04930	0.00230	0.00114	0.00006	0.00007	0.01378	0.01379	0.00164	0.00164	0.00339	0.00313
iron	0.82199	40.62832	0.64834	38.95403	1.74978	0.99540	0.01459	0.02554	3.23322	3.23297	0.80257	0.60681	2.55302	2.35475
lead	0.00105	0.04352	0.00089	0.04585	0.00213	0.00109	0.00007	0.00008	0.01613	0.01613	0.00204	0.00204	0.00324	0.00292
manganese	0.01274	0.62189	0.01011	0.60017	0.02879	0.01838	0.00024	0.00041	0.06268	0.06268	0.01225	0.00932	0.03962	0.03650
mercury	0.00021	0.00931	0.00020	0.00892	0.00127	0.00127	0.00001	0.00001	0.00448	0.00448	0.00056	0.00056	0.00067	0.00054
molybdenum	0.00007	0.00351	0.00006	0.00336	0.00014	0.00007	0.00000	0.00000	0.00023	0.00023	0.00007	0.00005	0.00022	0.00020
nickel	0.00185	0.05620	0.00192	0.05419	0.02354	0.02334	0.00008	0.00008	0.06713	0.06713	0.00656	0.00656	0.03182	0.03107
selenium	0.00063	0.00078	0.00058	0.00074	0.00086	0.00049	0.00006	0.00006	0.02082	0.02082	0.00256	0.00256	0.00119	0.00036
silver	0.00024	0.00734	0.00027	0.00868	0.00101	0.00100	0.00004	0.00005	0.00993	0.00993	0.00091	0.00092	0.00117	0.00117
strontium	0.01825	0.90480	0.01432	0.86699	0.03721	0.01907	0.00031	0.00056	0.06072	0.06071	0.01788	0.01349	0.05670	0.05231
tellurium	0.00001	0.00025	0.00000	0.00024	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00002	0.00001
thallium	0.00007	0.00330	0.00005	0.00317	0.00013	0.00005	0.00000	0.00000	0.00012	0.00012	0.00007	0.00005	0.00021	0.00019
titanium	0.07481	3.72771	0.05818	3.57146	0.14647	0.06243	0.00121	0.00229	0.17569	0.17567	0.07366	0.05543	0.23274	0.21493
tungsten	0.00022	0.01112	0.00017	0.01065	0.00043	0.00017	0.00000	0.00001	0.00044	0.00043	0.00022	0.00017	0.00069	0.00064
uranium	0.00027	0.01364	0.00021	0.01307	0.00053	0.00022	0.00000	0.00001	0.00059	0.00059	0.00027	0.00020	0.00085	0.00079
vanadium	0.00172	0.08522	0.00135	0.08166	0.00357	0.00191	0.00003	0.00005	0.00611	0.00611	0.00168	0.00127	0.00535	0.00493
zinc	0.00402	0.14055	0.00275	0.16402	0.00738	0.00723	0.00028	0.00035	0.06992	0.06992	0.00664	0.00665	0.01079	0.01096

µg/m³ = micrograms per cubic metres.

Table A-13 (DAR, Section 7, Appendix 7A, Table 7A2-16) Maximum 1-Hour Metals Predictions at Selected Locations Part B

Maximum 1-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	15.15532	8.80057	3.04225	1.41118	0.69351	1.09492	1.72100	1.76668	33.18861	10.88143	0.06444	0.19120	4.14560	1.04159
antimony	0.00043	0.00025	0.00008	0.00004	0.00002	0.00003	0.00005	0.00005	0.00092	0.00030	0.00000	0.00001	0.00012	0.00003
arsenic	0.00200	0.00118	0.00040	0.00016	0.00035	0.00034	0.00027	0.00027	0.00406	0.00127	0.00002	0.00003	0.00048	0.00013
barium	0.16430	0.10134	0.02674	0.01352	0.00566	0.00899	0.01408	0.01443	0.27118	0.08997	0.00058	0.00163	0.03412	0.01084
beryllium	0.00052	0.00026	0.00014	0.00010	0.00025	0.00025	0.00019	0.00019	0.00109	0.00035	0.00002	0.00002	0.00017	0.00009
cadmium	0.00601	0.00597	0.00272	0.00271	0.00273	0.00273	0.00173	0.00178	0.00293	0.00795	0.00019	0.00026	0.00212	0.00204
chromium	0.07100	0.06352	0.01249	0.00949	0.00311	0.00311	0.00441	0.00462	0.08519	0.02872	0.00022	0.00057	0.01235	0.00708
cobalt	0.00449	0.00435	0.00089	0.00083	0.00046	0.00046	0.00030	0.00033	0.00336	0.00155	0.00003	0.00005	0.00070	0.00053
copper	0.00558	0.00358	0.00107	0.00064	0.00070	0.00069	0.00057	0.00058	0.00924	0.00306	0.00005	0.00009	0.00119	0.00039
iron	4.88133	3.02395	0.79494	0.41815	0.16435	0.26128	0.40881	0.41951	7.87144	2.61490	0.01699	0.04761	0.99384	0.33175
lead	0.00451	0.00284	0.00107	0.00048	0.00090	0.00090	0.00070	0.00070	0.00869	0.00281	0.00006	0.00008	0.00108	0.00047
manganese	0.08269	0.05718	0.01364	0.00852	0.00311	0.00402	0.00625	0.00651	0.12076	0.04027	0.00029	0.00077	0.01559	0.00639
mercury	0.00108	0.00068	0.00033	0.00032	0.00029	0.00029	0.00022	0.00022	0.00199	0.00060	0.00002	0.00002	0.00031	0.00017
molybdenum	0.00039	0.00024	0.00006	0.00003	0.00001	0.00002	0.00004	0.00004	0.00068	0.00022	0.00000	0.00000	0.00008	0.00002
nickel	0.07769	0.07552	0.01195	0.01134	0.00309	0.00309	0.00247	0.00247	0.01182	0.00745	0.00010	0.00014	0.00869	0.00833
selenium	0.00147	0.00094	0.00061	0.00048	0.00124	0.00124	0.00091	0.00091	0.00177	0.00176	0.00008	0.00008	0.00082	0.00045
silver	0.00100	0.00099	0.00045	0.00045	0.00044	0.00044	0.00026	0.00030	0.00051	0.00133	0.00003	0.00004	0.00035	0.00034
strontium	0.10101	0.06173	0.01641	0.00752	0.00366	0.00581	0.00910	0.00933	0.17529	0.05802	0.00037	0.00104	0.02192	0.00621
tellurium	0.00003	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00002	0.00000	0.00000	0.00001	0.00000
thallium	0.00029	0.00017	0.00006	0.00003	0.00001	0.00002	0.00003	0.00003	0.00064	0.00021	0.00000	0.00000	0.00008	0.00002
titanium	0.36231	0.21516	0.06650	0.03072	0.01508	0.02385	0.03745	0.03842	0.72193	0.23753	0.00144	0.00421	0.09015	0.02268
tungsten	0.00099	0.00058	0.00020	0.00009	0.00004	0.00007	0.00011	0.00011	0.00215	0.00071	0.00000	0.00001	0.00027	0.00007
uranium	0.00128	0.00075	0.00024	0.00011	0.00006	0.00009	0.00014	0.00014	0.00264	0.00087	0.00001	0.00002	0.00033	0.00008
vanadium	0.00979	0.00601	0.00159	0.00077	0.00034	0.00055	0.00086	0.00088	0.01651	0.00547	0.00003	0.00010	0.00207	0.00063
zinc	0.01586	0.01091	0.00363	0.00323	0.00325	0.00325	0.00209	0.00232	0.02607	0.01100	0.00023	0.00036	0.00367	0.00245

µg/m³ = micrograms per cubic metres.

Table A-13 (DAR, Section 7, Appendix 7A, Table 7A2-16) Maximum 1-Hour Metals Predictions at Selected Locations Part C

Maximum 1-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	0.05054	0.11015	0.04707	0.11159	14.73760	8.57726	5.31717	1.06652	3.38124	1.74910	5.38890	753.19141	226.45979	753.19141
antimony	0.00000	0.00000	0.00000	0.00000	0.00042	0.00024	0.00015	0.00003	0.00009	0.00005	0.00015	0.02090	0.00629	0.02090
arsenic	0.00003	0.00003	0.00003	0.00003	0.00196	0.00116	0.00062	0.00015	0.00039	0.00029	0.00076	0.08750	0.02631	0.08750
barium	0.00045	0.00093	0.00040	0.00094	0.16359	0.10146	0.04341	0.01259	0.03353	0.02668	0.04506	6.14951	1.84902	6.14951
beryllium	0.00002	0.00002	0.00002	0.00002	0.00050	0.00030	0.00025	0.00010	0.00014	0.00008	0.00025	0.02122	0.00638	0.02122
cadmium	0.00035	0.00041	0.00036	0.00043	0.00610	0.00607	0.00308	0.00305	0.00334	0.00327	0.00224	0.11950	0.05901	0.11950
chromium	0.00018	0.00031	0.00020	0.00032	0.07205	0.06170	0.01360	0.00923	0.01836	0.01433	0.01524	1.93480	0.57746	1.93480
cobalt	0.00006	0.00007	0.00006	0.00008	0.00426	0.00412	0.00070	0.00068	0.00127	0.00106	0.00075	0.08999	0.02286	0.08999
copper	0.00008	0.00009	0.00009	0.00010	0.00552	0.00356	0.00148	0.00062	0.00124	0.00105	0.00176	0.21708	0.06109	0.21708
iron	0.01327	0.02711	0.01179	0.02742	4.86791	3.03261	1.26026	0.39556	1.01542	0.80874	1.31093	178.56641	53.66939	178.56641
lead	0.00011	0.00012	0.00012	0.00013	0.00441	0.00278	0.00136	0.00056	0.00091	0.00080	0.00171	0.20132	0.05635	0.20132
manganese	0.00023	0.00043	0.00024	0.00043	0.08298	0.05594	0.01930	0.00819	0.01873	0.01481	0.02072	2.74275	0.82045	2.74275
mercury	0.00002	0.00002	0.00002	0.00002	0.00107	0.00072	0.00035	0.00021	0.00100	0.00100	0.00039	0.04089	0.01229	0.04089
molybdenum	0.00000	0.00000	0.00000	0.00000	0.00038	0.00024	0.00011	0.00003	0.00008	0.00006	0.00011	0.01542	0.00464	0.01542
nickel	0.00013	0.00013	0.00011	0.00011	0.07450	0.07254	0.01125	0.01114	0.01779	0.01357	0.00398	0.24749	0.10519	0.59973
selenium	0.00011	0.00011	0.00011	0.00011	0.00145	0.00124	0.00117	0.00049	0.00054	0.00034	0.00081	0.00341	0.02494	0.02494
silver	0.00006	0.00007	0.00006	0.00007	0.00101	0.00101	0.00051	0.00051	0.00056	0.00054	0.00037	0.02178	0.00937	0.02178
strontium	0.00029	0.00060	0.00026	0.00060	0.10020	0.06155	0.02806	0.00673	0.01971	0.01566	0.02900	3.97549	1.19537	3.97549
tellurium	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00001	0.00000	0.00000	0.00000	0.00001	0.00111	0.00033	0.00111
thallium	0.00000	0.00000	0.00000	0.00000	0.00028	0.00016	0.00010	0.00002	0.00007	0.00003	0.00010	0.01451	0.00436	0.01451
titanium	0.00113	0.00242	0.00104	0.00245	0.35541	0.21187	0.11563	0.02322	0.07353	0.04805	0.11805	16.37786	4.92484	16.37786
tungsten	0.00000	0.00001	0.00000	0.00001	0.00096	0.00056	0.00034	0.00007	0.00022	0.00012	0.00035	0.04885	0.01469	0.04885
uranium	0.00000	0.00001	0.00000	0.00001	0.00125	0.00074	0.00042	0.00008	0.00027	0.00016	0.00043	0.05994	0.01802	0.05994
vanadium	0.00003	0.00006	0.00002	0.00006	0.00973	0.00601	0.00264	0.00071	0.00196	0.00156	0.00274	0.37445	0.11259	0.37445
zinc	0.00042	0.00050	0.00043	0.00052	0.01552	0.01069	0.00446	0.00372	0.00461	0.00396	0.00519	0.68834	0.17766	0.68834

µg/m³ = micrograms per cubic metres.

Table A-14 (DAR, Section 7, Appendix 7A, Table 7A2-17) Maximum 24-Hour Metals Predictions at Selected Locations Part A

Maximum 24-hour (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	0.88144	69.65636	0.63534	41.58066	2.65392	0.91749	0.01849	0.03145	4.65935	4.65768	0.51677	0.81264	2.72112	2.59586
antimony	0.00002	0.00193	0.00002	0.00115	0.00007	0.00003	0.00000	0.00000	0.00013	0.00013	0.00001	0.00002	0.00008	0.00007
arsenic	0.00012	0.00809	0.00010	0.00483	0.00034	0.00012	0.00000	0.00000	0.00133	0.00133	0.00021	0.00021	0.00033	0.00031
barium	0.00750	0.56875	0.00537	0.33954	0.02524	0.01131	0.00017	0.00026	0.06799	0.06798	0.00422	0.00671	0.02276	0.02170
beryllium	0.00004	0.00196	0.00005	0.00117	0.00009	0.00003	0.00000	0.00000	0.00095	0.00095	0.00015	0.00015	0.00011	0.00007
cadmium	0.00030	0.01264	0.00067	0.01462	0.00168	0.00169	0.00006	0.00006	0.01069	0.01070	0.00256	0.00256	0.00178	0.00221
chromium	0.00254	0.17771	0.00181	0.10728	0.00964	0.00611	0.00006	0.00009	0.03728	0.03728	0.00234	0.00234	0.00985	0.00884
cobalt	0.00014	0.00711	0.00018	0.00539	0.00059	0.00057	0.00001	0.00001	0.00383	0.00383	0.00043	0.00043	0.00086	0.00081
copper	0.00031	0.01886	0.00031	0.01241	0.00087	0.00046	0.00002	0.00002	0.00380	0.00380	0.00073	0.00073	0.00084	0.00082
iron	0.21872	16.50897	0.15648	9.86158	0.74268	0.34285	0.00495	0.00771	2.06405	2.06366	0.12320	0.19518	0.66234	0.63165
lead	0.00029	0.01741	0.00033	0.01153	0.00076	0.00037	0.00002	0.00002	0.00321	0.00321	0.00086	0.00086	0.00082	0.00077
manganese	0.00346	0.25245	0.00248	0.15187	0.01209	0.00633	0.00008	0.00012	0.03886	0.03885	0.00257	0.00303	0.01031	0.00985
mercury	0.00006	0.00378	0.00007	0.00226	0.00028	0.00027	0.00000	0.00000	0.00098	0.00098	0.00017	0.00017	0.00018	0.00015
molybdenum	0.00002	0.00143	0.00001	0.00085	0.00006	0.00003	0.00000	0.00000	0.00015	0.00015	0.00001	0.00002	0.00006	0.00005
nickel	0.00061	0.02285	0.00072	0.01374	0.00789	0.00671	0.00003	0.00004	0.03182	0.03181	0.00195	0.00195	0.01139	0.01041
selenium	0.00014	0.00032	0.00019	0.00020	0.00025	0.00015	0.00002	0.00002	0.00465	0.00465	0.00070	0.00070	0.00033	0.00009
silver	0.00005	0.00213	0.00011	0.00247	0.00028	0.00028	0.00001	0.00001	0.00179	0.00180	0.00040	0.00040	0.00030	0.00037
strontium	0.00481	0.36769	0.00345	0.21949	0.01586	0.00665	0.00011	0.00017	0.04009	0.04008	0.00273	0.00433	0.01464	0.01396
tellurium	0.00000	0.00010	0.00000	0.00006	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
thallium	0.00002	0.00134	0.00001	0.00080	0.00005	0.00002	0.00000	0.00000	0.00009	0.00009	0.00001	0.00002	0.00005	0.00005
titanium	0.01941	1.51483	0.01396	0.90414	0.06060	0.02214	0.00042	0.00069	0.12531	0.12527	0.01124	0.01773	0.05960	0.05684
tungsten	0.00006	0.00452	0.00004	0.00270	0.00017	0.00006	0.00000	0.00000	0.00031	0.00031	0.00003	0.00005	0.00018	0.00017
uranium	0.00007	0.00554	0.00005	0.00331	0.00022	0.00008	0.00000	0.00000	0.00042	0.00042	0.00004	0.00006	0.00022	0.00021
vanadium	0.00046	0.03463	0.00033	0.02067	0.00152	0.00066	0.00001	0.00002	0.00398	0.00398	0.00026	0.00041	0.00138	0.00132
zinc	0.00098	0.05516	0.00113	0.04094	0.00249	0.00224	0.00007	0.00009	0.01688	0.01690	0.00312	0.00312	0.00330	0.00378

µg/m³ = micrograms per cubic metres.

Table A-14 (DAR, Section 7, Appendix 7A, Table 7A2-17) Maximum 24-Hour Metals Predictions at Selected Locations Part B

Maximum 24-hour (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	3.75666	2.19613	1.07090	0.51555	0.13245	0.41220	0.28066	0.53899	8.62248	3.92536	0.01845	0.04219	1.53778	0.32567
antimony	0.00011	0.00006	0.00003	0.00001	0.00000	0.00001	0.00001	0.00001	0.00024	0.00011	0.00000	0.00000	0.00004	0.00001
arsenic	0.00051	0.00039	0.00014	0.00006	0.00010	0.00010	0.00004	0.00006	0.00102	0.00046	0.00000	0.00001	0.00019	0.00004
barium	0.04876	0.03999	0.00984	0.00476	0.00128	0.00340	0.00230	0.00447	0.07047	0.03231	0.00016	0.00036	0.01315	0.00322
beryllium	0.00015	0.00009	0.00004	0.00002	0.00007	0.00007	0.00003	0.00003	0.00026	0.00011	0.00000	0.00000	0.00005	0.00002
cadmium	0.00232	0.00248	0.00118	0.00113	0.00090	0.00090	0.00037	0.00089	0.00125	0.00285	0.00006	0.00008	0.00062	0.00048
chromium	0.02956	0.02578	0.00441	0.00350	0.00073	0.00109	0.00076	0.00144	0.02208	0.01053	0.00006	0.00013	0.00441	0.00178
cobalt	0.00189	0.00169	0.00045	0.00041	0.00017	0.00017	0.00007	0.00015	0.00090	0.00072	0.00001	0.00002	0.00026	0.00017
copper	0.00155	0.00127	0.00042	0.00033	0.00027	0.00027	0.00012	0.00017	0.00239	0.00137	0.00002	0.00002	0.00046	0.00016
iron	1.49742	1.23665	0.28942	0.14952	0.03877	0.09895	0.06672	0.12988	2.04575	0.93999	0.00476	0.01056	0.38324	0.09778
lead	0.00119	0.00084	0.00039	0.00025	0.00031	0.00031	0.00014	0.00017	0.00222	0.00128	0.00002	0.00003	0.00042	0.00013
manganese	0.02863	0.02423	0.00474	0.00319	0.00083	0.00153	0.00105	0.00201	0.03134	0.01470	0.00008	0.00018	0.00599	0.00184
mercury	0.00038	0.00030	0.00014	0.00012	0.00008	0.00008	0.00003	0.00003	0.00048	0.00021	0.00000	0.00000	0.00009	0.00004
molybdenum	0.00010	0.00008	0.00002	0.00001	0.00000	0.00001	0.00001	0.00001	0.00018	0.00008	0.00000	0.00000	0.00003	0.00001
nickel	0.03102	0.02854	0.00425	0.00390	0.00062	0.00061	0.00035	0.00035	0.00299	0.00206	0.00002	0.00003	0.00219	0.00188
selenium	0.00050	0.00026	0.00011	0.00010	0.00034	0.00034	0.00014	0.00014	0.00027	0.00026	0.00001	0.00001	0.00022	0.00008
silver	0.00038	0.00042	0.00020	0.00019	0.00014	0.00014	0.00006	0.00015	0.00021	0.00048	0.00001	0.00001	0.00010	0.00008
strontium	0.02767	0.02228	0.00619	0.00297	0.00075	0.00220	0.00148	0.00288	0.04555	0.02085	0.00010	0.00023	0.00842	0.00189
tellurium	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000
thallium	0.00007	0.00004	0.00002	0.00001	0.00000	0.00001	0.00001	0.00001	0.00017	0.00008	0.00000	0.00000	0.00003	0.00001
titanium	0.08520	0.05886	0.02389	0.01159	0.00288	0.00899	0.00611	0.01177	0.18756	0.08553	0.00041	0.00093	0.03392	0.00711
tungsten	0.00024	0.00014	0.00007	0.00003	0.00001	0.00003	0.00002	0.00003	0.00056	0.00025	0.00000	0.00000	0.00010	0.00002
uranium	0.00031	0.00019	0.00009	0.00004	0.00001	0.00003	0.00002	0.00004	0.00069	0.00031	0.00000	0.00000	0.00012	0.00003
vanadium	0.00281	0.00229	0.00059	0.00028	0.00007	0.00021	0.00014	0.00027	0.00429	0.00197	0.00001	0.00002	0.00080	0.00019
zinc	0.00440	0.00420	0.00180	0.00154	0.00114	0.00114	0.00046	0.00108	0.00699	0.00523	0.00008	0.00011	0.00136	0.00065

µg/m³ = micrograms per cubic metres.

Table A-14 (DAR, Section 7, Appendix 7A, Table 7A2-17) Maximum 24-Hour Metals Predictions at Selected Locations Part C

Maximum 24-hour (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	0.01971	0.02154	0.01661	0.02235	3.72391	2.05484	1.76163	0.36482	1.19086	0.67477	1.37716	270.51334	69.62842	270.51334
antimony	0.00000	0.00000	0.00000	0.00000	0.00010	0.00006	0.00005	0.00001	0.00003	0.00002	0.00004	0.00751	0.00193	0.00751
arsenic	0.00001	0.00001	0.00001	0.00001	0.00052	0.00039	0.00021	0.00005	0.00016	0.00010	0.00018	0.03143	0.00809	0.03143
barium	0.00018	0.00019	0.00015	0.00020	0.05402	0.04508	0.01484	0.00302	0.01396	0.00935	0.01154	2.20847	0.56853	2.20847
beryllium	0.00001	0.00001	0.00001	0.00001	0.00016	0.00011	0.00009	0.00002	0.00005	0.00002	0.00006	0.00762	0.00196	0.00762
cadmium	0.00016	0.00019	0.00015	0.00018	0.00226	0.00239	0.00101	0.00057	0.00112	0.00117	0.00075	0.05683	0.01687	0.05683
chromium	0.00007	0.00007	0.00006	0.00008	0.03346	0.02954	0.00488	0.00185	0.00698	0.00490	0.00381	0.69374	0.17725	0.69374
cobalt	0.00003	0.00003	0.00002	0.00003	0.00214	0.00194	0.00026	0.00018	0.00050	0.00043	0.00021	0.03132	0.00673	0.03132
copper	0.00004	0.00005	0.00004	0.00004	0.00163	0.00135	0.00052	0.00014	0.00053	0.00039	0.00044	0.07697	0.01848	0.07697
iron	0.00525	0.00548	0.00445	0.00593	1.66296	1.39691	0.43201	0.08791	0.42005	0.28266	0.33598	64.12278	16.50050	64.12278
lead	0.00005	0.00005	0.00004	0.00005	0.00122	0.00085	0.00052	0.00014	0.00043	0.00030	0.00042	0.07131	0.01702	0.07131
manganese	0.00009	0.00009	0.00007	0.00010	0.03207	0.02755	0.00672	0.00175	0.00752	0.00517	0.00526	0.98395	0.25196	0.98395
mercury	0.00001	0.00001	0.00001	0.00001	0.00037	0.00030	0.00016	0.00008	0.00016	0.00014	0.00009	0.01469	0.00378	0.01469
molybdenum	0.00000	0.00000	0.00000	0.00000	0.00012	0.00009	0.00004	0.00001	0.00003	0.00002	0.00003	0.00554	0.00143	0.00554
nickel	0.00003	0.00003	0.00002	0.00003	0.03582	0.03316	0.00218	0.00197	0.00577	0.00421	0.00099	0.08866	0.02282	0.14538
selenium	0.00004	0.00004	0.00003	0.00003	0.00050	0.00038	0.00039	0.00009	0.00015	0.00009	0.00022	0.00123	0.00487	0.00487
silver	0.00003	0.00003	0.00002	0.00003	0.00037	0.00040	0.00015	0.00009	0.00019	0.00019	0.00012	0.00970	0.00283	0.00970
strontium	0.00011	0.00012	0.00010	0.00013	0.03046	0.02498	0.00953	0.00195	0.00836	0.00554	0.00742	1.42774	0.36755	1.42774
tellurium	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00040	0.00010	0.00040
thallium	0.00000	0.00000	0.00000	0.00000	0.00007	0.00004	0.00003	0.00001	0.00002	0.00001	0.00003	0.00521	0.00134	0.00521
titanium	0.00044	0.00048	0.00037	0.00050	0.08609	0.05998	0.03867	0.00797	0.02913	0.01756	0.03017	5.88220	1.51427	5.88220
tungsten	0.00000	0.00000	0.00000	0.00000	0.00024	0.00013	0.00011	0.00002	0.00008	0.00004	0.00009	0.01754	0.00452	0.01754
uranium	0.00000	0.00000	0.00000	0.00000	0.00031	0.00018	0.00014	0.00003	0.00010	0.00006	0.00011	0.02153	0.00554	0.02153
vanadium	0.00001	0.00001	0.00001	0.00001	0.00310	0.00257	0.00090	0.00018	0.00082	0.00055	0.00070	0.13448	0.03462	0.13448
zinc	0.00019	0.00022	0.00018	0.00021	0.00430	0.00406	0.00159	0.00072	0.00177	0.00169	0.00143	0.24027	0.05251	0.24027

µg/m³ = micrograms per cubic metres.

Table A-15 (DAR, Section 7, Appendix 7A, Table 7A2-18) Maximum Annual Metals Predictions at Selected Locations Part A

Maximum Annual (µg/m³)	13DDJPA		13DDJPB		CAMS Polar Explosives		Courageous Lake Lodge		Diavik Camp		Diavik TK Camp		Ekati Airport Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	0.04196	6.41695	0.03958	4.78708	0.25584	0.10644	0.00056	0.00073	0.31953	0.32028	0.04220	0.04999	0.43996	0.29829
antimony	0.00000	0.00018	0.00000	0.00013	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001
arsenic	0.00001	0.00075	0.00001	0.00056	0.00004	0.00002	0.00000	0.00000	0.00012	0.00012	0.00002	0.00002	0.00006	0.00004
barium	0.00036	0.05247	0.00034	0.03918	0.00306	0.00154	0.00001	0.00001	0.00515	0.00516	0.00043	0.00051	0.00457	0.00330
beryllium	0.00000	0.00018	0.00000	0.00014	0.00001	0.00001	0.00000	0.00000	0.00006	0.00006	0.00001	0.00001	0.00002	0.00001
cadmium	0.00003	0.00103	0.00004	0.00148	0.00015	0.00012	0.00000	0.00000	0.00106	0.00108	0.00015	0.00017	0.00028	0.00029
chromium	0.00013	0.01655	0.00012	0.01250	0.00145	0.00083	0.00000	0.00000	0.00305	0.00306	0.00021	0.00024	0.00194	0.00149
cobalt	0.00001	0.00077	0.00001	0.00070	0.00010	0.00006	0.00000	0.00000	0.00033	0.00034	0.00003	0.00004	0.00014	0.00012
copper	0.00002	0.00186	0.00002	0.00151	0.00012	0.00007	0.00000	0.00000	0.00043	0.00043	0.00005	0.00006	0.00020	0.00015
iron	0.01054	1.52379	0.01002	1.13867	0.09142	0.04668	0.00016	0.00021	0.15728	0.15763	0.01292	0.01516	0.13545	0.09832
lead	0.00002	0.00172	0.00002	0.00140	0.00010	0.00006	0.00000	0.00000	0.00043	0.00043	0.00006	0.00006	0.00018	0.00013
manganese	0.00017	0.02342	0.00016	0.01762	0.00161	0.00086	0.00000	0.00000	0.00315	0.00316	0.00025	0.00029	0.00231	0.00171
mercury	0.00000	0.00035	0.00000	0.00026	0.00004	0.00003	0.00000	0.00000	0.00010	0.00010	0.00001	0.00001	0.00004	0.00003
molybdenum	0.00000	0.00013	0.00000	0.00010	0.00001	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001
nickel	0.00003	0.00219	0.00003	0.00168	0.00108	0.00074	0.00000	0.00000	0.00274	0.00275	0.00011	0.00013	0.00114	0.00098
selenium	0.00001	0.00004	0.00001	0.00003	0.00002	0.00001	0.00000	0.00000	0.00028	0.00028	0.00004	0.00004	0.00003	0.00001
silver	0.00001	0.00019	0.00001	0.00026	0.00002	0.00002	0.00000	0.00000	0.00017	0.00017	0.00002	0.00003	0.00005	0.00005
strontium	0.00023	0.03391	0.00022	0.02532	0.00185	0.00091	0.00000	0.00000	0.00300	0.00301	0.00027	0.00032	0.00283	0.00202
tellurium	0.00000	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
thallium	0.00000	0.00012	0.00000	0.00009	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00001	0.00001
titanium	0.00093	0.13960	0.00088	0.10416	0.00634	0.00286	0.00001	0.00002	0.00898	0.00900	0.00099	0.00116	0.01035	0.00718
tungsten	0.00000	0.00042	0.00000	0.00031	0.00002	0.00001	0.00000	0.00000	0.00002	0.00002	0.00000	0.00000	0.00003	0.00002
uranium	0.00000	0.00051	0.00000	0.00038	0.00002	0.00001	0.00000	0.00000	0.00003	0.00003	0.00000	0.00000	0.00004	0.00003
vanadium	0.00002	0.00319	0.00002	0.00239	0.00018	0.00009	0.00000	0.00000	0.00030	0.00030	0.00003	0.00003	0.00027	0.00020
zinc	0.00007	0.00588	0.00007	0.00522	0.00038	0.00024	0.00000	0.00001	0.00156	0.00158	0.00021	0.00024	0.00068	0.00058

µg/m³ = micrograms per cubic metres.

Table A-15 (DAR, Section 7, Appendix 7A, Table 7A2-18) Maximum Annual Metals Predictions at Selected Locations Part B

Maximum Annual (µg/m³)	Ekati Camp/Administration		Koala Station		Lac de Gras Winter Road Rest Stop		Lac De Grass Hunting Camp		Misery Camp		Pellatt Lake Cabin		Polar Lake Station	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	0.58104	0.32653	0.11094	0.06489	0.01210	0.01707	0.02139	0.03508	0.85992	0.30204	0.00103	0.00123	0.17230	0.03171
antimony	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000
arsenic	0.00010	0.00006	0.00002	0.00001	0.00001	0.00001	0.00000	0.00001	0.00011	0.00004	0.00000	0.00000	0.00002	0.00001
barium	0.00803	0.00554	0.00115	0.00074	0.00014	0.00018	0.00019	0.00031	0.00706	0.00267	0.00001	0.00001	0.00156	0.00038
beryllium	0.00003	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00003	0.00001	0.00000	0.00000	0.00001	0.00000
cadmium	0.00024	0.00023	0.00012	0.00012	0.00006	0.00007	0.00004	0.00006	0.00015	0.00032	0.00000	0.00001	0.00010	0.00007
chromium	0.00412	0.00314	0.00050	0.00035	0.00008	0.00009	0.00008	0.00012	0.00225	0.00099	0.00000	0.00001	0.00058	0.00019
cobalt	0.00027	0.00022	0.00004	0.00004	0.00001	0.00002	0.00001	0.00002	0.00011	0.00009	0.00000	0.00000	0.00004	0.00002
copper	0.00030	0.00021	0.00006	0.00004	0.00002	0.00003	0.00002	0.00002	0.00026	0.00015	0.00000	0.00000	0.00007	0.00002
iron	0.24226	0.16867	0.03413	0.02204	0.00422	0.00549	0.00568	0.00922	0.20519	0.07824	0.00029	0.00034	0.04573	0.01152
lead	0.00023	0.00015	0.00005	0.00004	0.00003	0.00003	0.00002	0.00002	0.00025	0.00015	0.00000	0.00000	0.00007	0.00002
manganese	0.00438	0.00317	0.00059	0.00040	0.00009	0.00011	0.00010	0.00016	0.00317	0.00129	0.00001	0.00001	0.00075	0.00021
mercury	0.00007	0.00004	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000	0.00005	0.00002	0.00000	0.00000	0.00002	0.00001
molybdenum	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000
nickel	0.00352	0.00301	0.00029	0.00024	0.00005	0.00006	0.00003	0.00004	0.00033	0.00031	0.00000	0.00000	0.00022	0.00014
selenium	0.00006	0.00003	0.00001	0.00001	0.00002	0.00002	0.00001	0.00001	0.00004	0.00003	0.00000	0.00000	0.00002	0.00000
silver	0.00004	0.00004	0.00002	0.00002	0.00001	0.00001	0.00001	0.00001	0.00003	0.00005	0.00000	0.00000	0.00002	0.00001
strontium	0.00477	0.00321	0.00071	0.00045	0.00008	0.00011	0.00012	0.00020	0.00456	0.00170	0.00001	0.00001	0.00099	0.00023
tellurium	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
thallium	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000
titanium	0.01529	0.00942	0.00261	0.00158	0.00030	0.00041	0.00048	0.00078	0.01873	0.00673	0.00002	0.00003	0.00387	0.00079
tungsten	0.00004	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00002	0.00000	0.00000	0.00001	0.00000
uranium	0.00005	0.00003	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00007	0.00002	0.00000	0.00000	0.00001	0.00000
vanadium	0.00047	0.00032	0.00007	0.00004	0.00001	0.00001	0.00001	0.00002	0.00043	0.00016	0.00000	0.00000	0.00009	0.00002
zinc	0.00082	0.00061	0.00023	0.00019	0.00009	0.00010	0.00006	0.00010	0.00081	0.00060	0.00001	0.00001	0.00025	0.00010

µg/m³ = micrograms per cubic metres.

Table A-15 (DAR, Section 7, Appendix 7A, Table 7A2-18) Maximum Annual Metals Predictions at Selected Locations Part C

Maximum Annual (µg/m³)	Salmita Airstrip		Treeline Lodge		TSP1		TSP2		TSP3		Jay Pit Boundary		MPOI	
	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case	Base Case	Application Case
aluminum	0.00059	0.00070	0.00057	0.00066	0.56801	0.31552	0.15508	0.04003	0.17266	0.04084	0.07936	31.62270	12.16987	31.62270
antimony	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00088	0.00034	0.00088
arsenic	0.00000	0.00000	0.00000	0.00000	0.00010	0.00006	0.00002	0.00001	0.00003	0.00001	0.00001	0.00368	0.00142	0.00368
barium	0.00001	0.00001	0.00001	0.00001	0.00808	0.00557	0.00144	0.00047	0.00187	0.00062	0.00067	0.25832	0.09949	0.25832
beryllium	0.00000	0.00000	0.00000	0.00000	0.00003	0.00002	0.00001	0.00000	0.00001	0.00000	0.00000	0.00089	0.00034	0.00089
cadmium	0.00000	0.00001	0.00000	0.00001	0.00024	0.00023	0.00012	0.00008	0.00009	0.00007	0.00005	0.00871	0.00236	0.00871
chromium	0.00000	0.00000	0.00000	0.00000	0.00421	0.00321	0.00055	0.00023	0.00082	0.00035	0.00023	0.08197	0.03107	0.08197
cobalt	0.00000	0.00000	0.00000	0.00000	0.00028	0.00023	0.00004	0.00002	0.00006	0.00003	0.00002	0.00440	0.00117	0.00440
copper	0.00000	0.00000	0.00000	0.00000	0.00030	0.00021	0.00007	0.00003	0.00008	0.00003	0.00003	0.00974	0.00323	0.00974
iron	0.00018	0.00021	0.00017	0.00019	0.24403	0.17016	0.04229	0.01409	0.05555	0.01894	0.01966	7.50445	2.88780	7.50445
lead	0.00000	0.00000	0.00000	0.00000	0.00023	0.00015	0.00007	0.00003	0.00006	0.00002	0.00003	0.00907	0.00297	0.00907
manganese	0.00000	0.00000	0.00000	0.00000	0.00444	0.00321	0.00070	0.00026	0.00095	0.00036	0.00032	0.11587	0.04411	0.11587
mercury	0.00000	0.00000	0.00000	0.00000	0.00007	0.00005	0.00002	0.00001	0.00003	0.00002	0.00001	0.00172	0.00067	0.00172
molybdenum	0.00000	0.00000	0.00000	0.00000	0.00002	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00065	0.00025	0.00065
nickel	0.00000	0.00000	0.00000	0.00000	0.00367	0.00314	0.00023	0.00016	0.00053	0.00032	0.00005	0.01056	0.00411	0.03070
selenium	0.00000	0.00000	0.00000	0.00000	0.00006	0.00004	0.00002	0.00000	0.00001	0.00000	0.00001	0.00015	0.00034	0.00034
silver	0.00000	0.00000	0.00000	0.00000	0.00004	0.00004	0.00002	0.00001	0.00001	0.00001	0.00001	0.00153	0.00039	0.00153
strontium	0.00000	0.00000	0.00000	0.00000	0.00478	0.00322	0.00091	0.00029	0.00115	0.00037	0.00043	0.16697	0.06430	0.16697
tellurium	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00002	0.00005
thallium	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00061	0.00023	0.00061
titanium	0.00001	0.00002	0.00001	0.00002	0.01513	0.00928	0.00351	0.00098	0.00412	0.00112	0.00175	0.68766	0.26477	0.68766
tungsten	0.00000	0.00000	0.00000	0.00000	0.00004	0.00002	0.00001	0.00000	0.00001	0.00000	0.00001	0.00205	0.00079	0.00205
uranium	0.00000	0.00000	0.00000	0.00000	0.00005	0.00003	0.00001	0.00000	0.00001	0.00000	0.00001	0.00252	0.00097	0.00252
vanadium	0.00000	0.00000	0.00000	0.00000	0.00047	0.00032	0.00009	0.00003	0.00011	0.00004	0.00004	0.01573	0.00606	0.01573
zinc	0.00001	0.00001	0.00001	0.00001	0.00081	0.00059	0.00026	0.00013	0.00024	0.00011	0.00012	0.03321	0.00912	0.03321

µg/m³ = micrograms per cubic metres.

APPENDIX B

Emissions Tables

Appendix B provides an update to the emission tables presented in the Developer's Assessment Report (DAR), Section 7, Appendix 7B due to the revisions outlined in Section 2.0 of this memo. Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

In Table B-1, the changes in the Base Case, Application Case, and Construction Case Ekati Mine emissions are due to a combination of typographical errors and other revisions, as provided in Tables 3-1, 3-3, and 3-5, respectively.

Table B-1 (DAR, Section 7, Appendix 7-B, Table 7B2-1) Summary of Project and Regional Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM_{2.5}$	PM_{10}	TSP
Base Case						
2015 Ekati Mine	2.900	3,585.6	1,143.4	209.7 (213.8)	1,165.6 (1,159.7)	3,384.4 (3,362.5)
Diavik Mine	8.596	6,683.0	2,042.4	346.6	447.9	729.8
Total	11.496	10,268.6	3,185.8	556.3 (560.4)	1,613.5 (1,607.6)	4,114.2 (4092.3)
Application Case						
Ekati Mine and Jay Project – Operation	4.246	4,707.2	1,823.0	346.6 (326.2)	1,760.2 (1,510.0)	5,053.4 (4,159.3)
Diavik Mine	8.596	6,683.0	2,042.4	346.6	447.9	729.8
Total	12.842	11,390.2	3,865.4	693.2 (672.8)	2,208.1 (1,957.9)	5,783.2 (4,889.1)
Construction Case						
Ekati Mine and Jay Project – Construction	3.584 (3.014)	3,948.5 (3,646.1)	1,287.3 (1,167.4)	347.8 (347.5)	2,362.4 (2,510.7)	6,483.7 (6,443.4)
Diavik Mine	8.596	6,683.0	2,042.4	346.6	447.9	729.8
Total	**12.180 (12.842)**	**10,631.5 (11,390.2)**	**3,329.7 (3,865.4)**	**694.4 (694.1)**	**2,810.3 (2,958.6)**	**7,213.5 (7,173.2)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; PM_{10} = particulate matter with particle diameter less than 10 µm; µm = micrometre;TSP = total suspended particulates

In Table B-2, the change in dioxin/furans emissions is due to Revision 3. All changes in metal emissions are due to Revision 4. Changes in Diavik Mine volatile organic compound (VOC) emissions are due to Revision 1. Changes in polycyclic aromatic hydrocarbon (PAH) emissions are due to Revisions 2 and 3. Changes in Construction Case Ekati Mine emissions are due to typographical errors, with the exception of the metal emissions which are due to Revision 4 and typographical errors. With the exception of metals, correct values were used in the modelling for the Ekati Mine and Jay Project Construction Case.

Table B-2 (DAR, Section 7, Appendix 7B, Table 7B2-2) Summary of Project and Regional Non-Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Base Case				
2015 Ekati Mine[(a)]	135.1	0.314	265.9 (262.8)	1.06×10^{-7} (2.31×10^{-8})
Diavik Mine	229.7 (434.7)	0.897 (19.417)	311.7 (223.9)	4.62×10^{-8} (2.31×10^{-8})
Total	364.8 (569.8)	1.211 (19.731)	577.6 (486.7)	1.52×10^{-7} (4.62×10^{-8})
Application Case				
Ekati Mine and Jay Project – Operation[(a)]	247.2	0.581	398.7 (321.9)	1.06×10^{-7} (2.31×10^{-8})
Diavik Mine	229.7 (434.7)	0.897 (19.417)	311.7 (223.9)	4.62×10^{-8} (2.31×10^{-8})
Total	476.9 (681.9)	1.478 (19.997)	710.4 (545.9)	1.52×10^{-7} (4.62×10^{-8})
Construction Case				
Ekati Mine and Jay Project – Construction	158.1 (138.9)	0.450 (0.337)	517.4 (323.9)	1.06×10^{-7} (2.31×10^{-8})
Diavik Mine	229.7 (434.7)	0.897 (19.417)	311.7 (223.9)	4.62×10^{-8} (2.31×10^{-8})
Total	**387.8 (573.6)**	**1.347 (19.754)**	**829.1 (547.8)**	**1.52×10^{-7} (4.62×10^{-8})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

a) Emissions include winter road emissions

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Tables B-3 and 3B-4, the changes in metal emissions are due to Revision 4.

Table B-3 (DAR, Section 7, Appendix 7B, Table 7B3.2-2) Base Case Power Generation Non- Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)		
	VOC	PAH	Metal
Diesel generator 1	12.680	0.033	0.028 (0.035)
Diesel generator 2	12.680	0.033	0.028 (0.035)
Diesel generator 3	12.680	0.033	0.028 (0.035)
Diesel generator 4	12.680	0.033	0.028 (0.035)
Diesel generator 5	12.680	0.033	0.028 (0.035)
Diesel generator 6	12.680	0.033	0.028 (0.035)
Total	**76.082**	**0.197**	**0.165 (0.207)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

Table B-4 (DAR, Section 7, Appendix 7B, Table 7B3.2-5) Base Case Boiler Non- Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)			
	VOC	PAH	Dioxins/Furans	Metal
Koala area FAR1	0.086	5.117E-04	—	0.002 (0.004)
Koala area FAR2	0.086	5.117E-04	—	0.002 (0.004)
Ekati area	0.040	2.405E-04	—	0.001 (0.002)
Polar area	0.014	8.404E-05	—	0.000 (0.001)
Misery area	0.020	1.176E-04	—	0.000 (0.001)
Portable[(a)]	0.002	1.243E-05	—	0.000
Total	**0.248**	**1.478E-03**	**—**	**0.006 (0.010)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, values shown in the DAR.

a) For Modelling, portable sources were included with the Ekati area emissions since they were very small sources and located in many different areas.

— no emission factor for his source; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-5, the change in dioxins/furans emissions is due to Revision 3.

Table B-5 (DAR, Section 7, Appendix 7B, Table 7B3.2-8) Incinerator Non-Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)			
	VOC	PAH (stack data)	Metal	Dioxins/Furans
South incinerator	0.247	1.588×10^{-4}	1.442×10^{-3}	9.75×10^{-8} (1.156×10^{-8})
North incinerator	0.245	8.742×10^{-5}	1.429×10^{-3}	8.54×10^{-9} (1.156×10^{-8})
Total	**0.492**	**2.462×10^{-4}**	**2.871×10^{-3}**	**1.06×10^{-7} (2.312×10^{-8})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-6, changes in metal emissions are due to Revision 4.

Table B-6 (DAR, Section 7, Appendix 7B, Table 7B3.2-15) Base Case Mine Equipment Non-Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)		
	VOC	PAH	Metal
Mine equipment	58.2	0.116	0.652 (0.225)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original, incorrect values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Tables B-7 and B-8, changes are due to a typographical error when compiling data for the report tables. Correct values were used in the modelling. Metal emissions were changed due to Revision 4.

Table B-7 (DAR, Section 7, Appendix 7B, Table (7B3.2-17) Base Case Drilling Emissions

Source	Emission Rates (t/y)			
	$PM_{2.5}$	PM_{10}	TSP	Metal
Misery OP	0.653 (0.056)	4.113 (0.355)	6.282 (0.543)	0.513 (0.044)
Lynx OP	0.004 (0.000)	0.025 (0.002)	0.038 (0.003)	0.003 (0.000)
Pigeon OP	0.337 (0.029)	2.121 (0.183)	3.239 (0.280)	0.265 (0.023)
Koala UG	0.057 (0.005)	0.376 (0.032)	0.795 (0.069)	0.065 (0.006)
Total	**1.051 (0.091)**	**6.635 (0.573)**	**10.354 (0.895)**	**0.846 (0.073)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; OP = open pit; UG = underground.

Table B-8 (DAR, Section 7, Appendix 7B, Table 7B3.2-18) Base Case Blasting Emissions

Source	Emission Rates (t/y)						
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Misery OP	0.002	0.012	0.054	0.226 (0.020)	3.739 (0.323)	5.195 (0.449)	0.425 (0.037)
Lynx OP	0.000	0.000	0.001	0.000	0.002 (0.000)	0.002 (0.000)	0.000
Pigeon OP	0.001	0.006	0.028	0.084 (0.007)	1.385 (0.120)	1.924 (0.166)	0.157 (0.014)
Koala UG	0.000	0.001	0.004	0.006 (0.001)	0.101 (0.009)	0.194 (0.017)	0.016 (0.001)
Total	**0.002**	**0.020**	**0.086**	**0.316 (0.027)**	**5.227 (0.452)**	**7.315 (0.632)**	**0.598 (0.052)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; OP = open pit; UG = underground.

In Tables B-9 and B-10, the changes in metal emission rates are due to Revision 4.

Table B-9 (DAR, Section 7, Appendix 7B, Table 7B3.2-19) Base Case Loading/Unloading Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Misery Pit	0.800	5.038	7.695	0.629
Misery WRSA	0.783	5.173	10.937	0.894
Ekati Stockpile	0.245	1.619	3.422	0.223 (0.123)
Ekati CPK Waste	0.123	0.809	1.711	0.111 (0.062)
Ekati WRSA	0.395	2.611	5.520	0.451
Pigeon Pit	0.406	2.559	3.909	0.319

Table B-9 (DAR, Section 7, Appendix 7B, Table 7B3.2-19) Base Case Loading/Unloading Emissions

Koala UG	0.027	0.177	0.375	0.031
Lynx Pit	0.003	0.017	0.026	0.002
Total	**2.782**	**18.003**	**33.594**	**2.660 (2.511)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; WRSA = waste rock storage area; CPK = coarse processed kimberlite; UG = underground.

Table B-10 (DAR, Section 7, Appendix 7B, Table 7B3.2-21) Base Case Bulldozing Emissions

Source	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Overburden Emission Factor [kg/hr]	0.074	0.126	0.706	—
Kimberlite Emission Factor [kg/hr]	0.0696	0.510	3.136	—
Waste Rock Emission Factor [kg/hr]	1.08	13.66	49.30	—
All Bulldozers Emission Rates (t/y)	6.2	75.4	239.9	18.5 (19.6)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emission factor for his source; kg/hr = kilogram per hour; t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-11, the changes in grading emissions are due to Revision 6.

Table B-11 (DAR, Section 7, Appendix 7B, Table 7B3.2-22) Grading Emissions

Source	Emission Rates			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Emission Factor [kg/VKT]	0.046	0.437	1.492	—
All grader emissions (t/y)	0.627 (5.9)	5.923 (9.9)	20.2	1.654 (1.7)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emission factor for his source; kg/VKT = kilogram per kilometre travelled; t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-12, the changes in metal emissions are due to Revision 4.

Table B-12 (DAR, Section 7, Appendix 7B, Table 7B3.2-23) Base Case Crushing, Screening and Conveying Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal

Table B-12 (DAR, Section 7, Appendix 7B, Table 7B3.2-23) Base Case Crushing, Screening and Conveying Emissions

Primary Crusher	1.093	5.904	13.119	0.854 (0.472)
Reclaim Area	0.396	2.141	4.757	0.310 (0.171)
Process Plant	3.648	19.697	43.772	2.850 (1.574)
Recovery plant	0.086	1.476	3.690	0.240 (0.133)
Total	**5.223**	**29.217**	**65.337**	**4.255 (2.349)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-13, the changes in road dust PM emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. The change in metal emissions is due to Revision 4.

Table B-13 (DAR, Section 7, Appendix 7B, Table 7B3.2-25) Base Case Road Dust Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
All Mine Vehicles	94.3 (94.2)	922.3 (923.4)	2,894.6 (2,888.8)	236.6 (236.1)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-14, the changes in PM emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in metal emissions are due to Revision 4.

Table B-14 (DAR, Section 7, Appendix 7B, Table 7B3.2-27) Base Case Wind Erosion Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Ekati Stockpile	0.000	0.000	0.001	0.000
Ekati CPK Waste	0.000	0.002 (0.003)	0.005	0.000
Koala/Panda WRSA	0.003 (0.001)	0.022 (0.010)	0.043 (0.020)	0.002
Misery WRSA	0.001	0.006 (0.007)	0.012 (0.014)	0.001
Fox WRSA	0.000 (0.001)	0.003 (0.004)	0.006 (0.007)	0.001
LLCF Area	0.009 (0.011)	0.062 (0.074)	0.124 (0.149)	0.010 (0.005)
Total	**0.014 (0.015)**	**0.096 (0.098)**	**0.191 (0.196)**	**0.013 (0.009)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; CPK = coarse processed kimberlite; WRSA = waste rock storage area; LLCF = Long Lake Containment Facility.

In Table B-15, changes in drilling and blasting and road dust emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in grading are due to Revision 6.

Table B-15 (DAR, Section 7, Appendix 7B, Table 7B3.2-30) Base Case Ekati Mine Criteria Air Contaminants Emission Summary

Source Type	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP
Power Generators	1.442	2,972.7	789.6	51.6	53.2	64.7
Boilers/Heaters	0.264	24.8	6.2	1.9	2.9	4.1
Waste Incinerators	0.529	0.5	1.6	1.1	1.1	1.1
Mine Fleet Exhaust	0.661	586.7	345.5	44.5	45.4	42.9
Drilling and Blasting	0.002	0.0	0.1	1.4 (0.1)	11.9 (1.0)	17.7 (1.5)
Loading and Unloading	—	—	—	2.8	18.0	33.6
Bulldozing	—	—	—	6.2	75.4	239.9
Grading	—	—	—	0.6 (5.9)	5.9 (9.9)	20.2
Crushing, Screening, Conveying	—	—	—	5.2	29.2	65.3
Road Dust	—	—	—	94.3 (94.2)	922.3 (923.4)	2,894.6 (2,888.8)
Wind Erosion	—	—	—	0.0	0.1	0.2
Exposed Lakebed	—	—	—	—	—	—
Winter Roads	0.002	0.9	0.4	0.0	0.0	0.0
Total Plant Emissions	2.900	3,585.6	1,143.4	209.7 (213.5)	1,165.6 (1,159.6)	3,384.4 (3,362.5)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from this source; t/y = tonnes per year; SO_2 = sulphur dioxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-16, the change in incinerator dioxin/furans emissions is due to Revision 3. All changes in metal emissions are due to Revision 4.

Table B-16 (DAR, Section 7, Appendix 7B, Table 7B3.2-31) Base Case Ekati Mine Non-Criteria Air Contaminants Emission Summary

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans

Table B-16 (DAR, Section 7, Appendix 7B, Table 7B3.2-31) Base Case Ekati Mine Non-Criteria Air Contaminants Emission Summary

Power Generators	76.1	0.197	0.2	—
Boilers/Heaters	0.2	0.001	0.0	—
Waste Incinerators	0.5	0.000	0.0	1.06×10^{-7} (2.31×10^{-8})
Mine Fleet Exhaust	58.2	0.116	0.7 (0.2)	—
Drilling and Blasting	—	—	1.4 (0.1)	—
Loading and Unloading	—	—	2.7 (2.5)	—
Bulldozing	—	—	18.5 (19.6)	—
Grading	—	—	1.7	—
Crushing, Screening, Conveying	—	—	4.3 (2.3)	—
Road Dust	—	—	236.6 (236.1)	—
Wind Erosion	—	—	0.0	—
Exposed Lakebed	—	—	—	—
Winter Roads	0.1	—	0.0	—
Total Plant Emissions	135.1	0.314	**265.9 (262.8)**	**1.06×10^{-7} (2.31×10^{-8})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon

In Table B-17, the changes in VOC and PAH emission are formatting changes made only to present the emissions more clearly. Changes in metal emissions are due to Revision 4.

Table B-17 (DAR, Section 7, Appendix 7B, Table 7B3.3-3) Application Case Boiler Non-Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)			
	VOC	PAH	Dioxins/Furans	Metal
Koala area FAR1	—	—	—	—
Koala area FAR2	—	—	—	—
Ekati area	0.040 (0.0)	2.41×10^{-4} (0.000)	—	1.00×10^{-3} (6.26×10^{-10})
Polar area	0.014 (0.0)	8.40×10^{-5} (0.000)	—	3.5×10^{-4} (2.19×10^{-10})
Misery area	0.020 (0.0)	1.18×10^{-4} (0.000)	—	4.90×10^{-4} (3.06×10^{-10})
Portable[a]	0.002 (0.0)	1.24×10^{-5} (0.000)	—	5.18×10^{-5} (3.24×10^{-11})
Total	0.076 (0.1)	4.55×10^{-4} (0.000)	—	1.89×10^{-3} (1.18×10^{-9})

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

a) For Modelling, portable sources were included with the Ekati area emissions since they were very small sources and located in many different areas.

— = no emissions from this source; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-18, the change in metal emissions is due to Revision 4.

Table B-18 (DAR, Section 7, Appendix 7B, Table 7B3.3-6) Application Case Mine Equipment Non-Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)		
	VOC	PAH	Metal
Mine equipment	170.5	0.383	3.3 (0.4)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Tables B-19 and B-20, the changes in PM emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in metal emissions are due to Revision 4.

Table B-19 (DAR, Section 7, Appendix 7B, Table 7B3.3-8) Application Case Drilling Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Misery OP	—	—	—	—
Lynx OP	—	—	—	—
Pigeon OP	—	—	—	—
Koala UG	—	—	—	—
Jay OP	1.333 (0.115)	8.399 (0.726)	12.828 (1.108)	1.048 (0.091)
Total	1.333 (0.115)	8.399 (0.726)	12.828 (1.108)	1.048 (0.091)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from his source; t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; OP = open pit; UG = underground.

Table B-20 (DAR, Section 7, Appendix 7B, Table 7B3.3-9) Application Case Blasting Emissions

Source	Emission Rates (t/y)						
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Misery OP	—	—	—	—	—	—	—
Lynx OP	—	—	—	—	—	—	—
Pigeon OP	—	—	—	—	—	—	—
Koala UG	—	—	—	—	—	—	—
Jay OP	0.003	0.025	0.110	0.660 (0.057)	10.913 (0.943)	15.160 (1.310)	1.239 (0.107)
Total	**0.003**	**0.025**	**0.110**	**0.660 (0.057)**	**10.913 (0.943)**	**15.160 (1.310)**	**1.239 (0.107)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from his source; t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; OP = open pit; UG = underground.

In Table B-21, the changes in metal emissions are due to Revision 4.

Table B-21 (DAR, Section 7, Appendix 7B, Table 7B3.3-10) Application Case Loading/Unloading Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Misery Pit	—	—	—	—
Misery WRSA	—	—	—	—
Ekati Stockpile	0.2	1.2	2.6	0.2 (0.1)
Ekati CPK Waste	0.1	0.4	0.8	0.1 (0.0)
Ekati WRSA	—	—	—	—
Pigeon Pit	—	—	—	—
Lynx Pit	—	—	—	—
Jay OP	1.6	10.4	15.8	1.3
Jay Transfer	0.2	1.2	2.6	0.2 (0.1)
Jay WRSA	1.6	10.3	21.7	1.8
Misery Stockpile	0.2	1.2	2.6	0.2 (0.1)
Total	**3.8**	**24.8**	**46.3**	**3.6 (3.4)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from his source; t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; WRSA = waste rock storage area; CPK = coarse processed kimberlite; OP = open pit.

In Table B-22, the changes in PM emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in metal emissions are due to Revision 4.

Table B-22 (DAR, Section 7, Appendix 7B, Table 7B3.3-11) Application Case Bulldozing Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
All Bulldozers	8.8 (9.3)	108.0 (114.1)	347.7 (363.8)	27.0 (29.7)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-23, the changes in PM emissions are due to Revisions 5 and 6, and the change in metal emissions is due to Revisions 4, 5 and 6.

Table B-23 (DAR, Section 7, Appendix 7B, Table 7B3.3-12) Application Case Road Dust Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
All Mine Vehicles	141.4 (117.0)	1,384.6 (1,142.0)	4,359.9 (3,475.3)	356.3 (284.0)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-24, the changes in PM emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. The changes in metal emissions are due to Revision 4.

Table B-24 (DAR, Section 7, Appendix 7B, Table 7B3.3-14) Application Case Wind Erosion Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Ekati Stockpile	6.11×10^{-5} (6.67E-05)	4.07×10^{-4} (4.44E-04)	8.15×10^{-4} (8.89E-04)	5.30×10^{-5} (3.20×10^{-5})
Ekati CPK Waste	3.68×10^{-2} (1.29E-03)	2.45×10^{-3} (8.59E-03)	4.91×10^{-3} (1.72E-02)	3.19×10^{-4} (6.18×10^{-4})
Koala/Panda WRSA	1.07×10^{-3} (4.02E-04)	7.16×10^{-3} (2.68E-03)	1.43×10^{-2} (5.36E-03)	1.17×10^{-3} (4.38×10^{-4})
Misery WRSA	1.11×10^{-4} (1.34E-04)	7.42×10^{-2} (8.91E-04)	1.48×10^{-3} (1.78E-03)	1.21×10^{-4} (1.46×10^{-4})
Fox WRSA	4.66×10^{-4} (5.60E-04)	3.11×10^{-3} (3.73E-03)	6.22×10^{-3} (7.46E-03)	5.08×10^{-4} (6.10×10^{-4})
LLCF Area	9.29×10^{-3} (1.12E-02)	6.19×10^{-2} (7.43E-02)	1.24E-01 (1.49E-01)	8.07×10^{-3} (5.35×10^{-3})
Jay WRSA	1.03×10^{-3} (1.20E-03)	6.88×10^{-3} (7.99E-03)	1.38×10^{-2} (1.60E-02)	1.12×10^{-3} (1.31×10^{-3})
Jay Transfer Pad	1.07×10^{-4} (1.21E-04)	7.11×10^{-4} (8.09E-04)	1.42×10^{-3} (1.62E-03)	9.26×10^{-5} (5.82×10^{-5})
Misery Stockpile	1.63×10^{-4} (1.89E-04)	1.09×10^{-3} (1.26E-03)	2.17×10^{-3} (2.52E-03)	1.42×10^{-4} (9.06×10^{-5})
Total	**1.27×10^{-2} (1.51E-02)**	**8.45×10^{-2} (1.01E-01)**	**1.69E-01 (2.01E-01)**	**1.16×10^{-2} (8.64×10^{-3})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; CPK = coarse processed kimberlite; WRSA = waste rock storage area; LLCF = Long Lake Containment Facility.

In Table B-25, the change in metal emissions is due to a typographical error, as metals were not modelled for the lakebed.

Table B-25 (DAR, Section 7, Appendix 7B, Table 7B3.3-15) Exposed Lakebed Wind Erosion Emissions

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Lac du Sauvage	0.014	0.094	0.189	— (0.015)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; — no emissions from this source.

In Table B-26, the changes in drilling and blasting, bulldozing, and wind erosion emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in grading and road dust emissions are due to Revisions 5 and 6.

Table B-26 (DAR, Section 7, Appendix 7B, Table 7B3.3-16) Application Case Ekati Plant and Jay Mine Criteria Air Contaminants Emission Summary

Source Type	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP
Power Generators	1.442	2,972.7	789.6	51.6	53.2	64.7
Boilers/Heaters	0.081	7.6	1.9	0.6	0.9	1.3
Waste Incinerators	0.529	0.5	1.6	1.1	1.1	1.1
Mine Fleet Exhaust	2.189	1,725.5	1,029.3	131.3	132.8	118.4
Drilling and Blasting	0.003	0.0	0.1	2.0 (0.2)	19.3 (1.7)	28.0 (2.4)
Loading and Unloading	—	—	—	3.8	24.8	46.3
Bulldozing	—	—	—	8.8 (9.3)	108.0 (114.1)	347.7 (363.8)
Grading	—	—	—	0.6 (5.9)	5.9 (9.9)	20.2
Crushing, Screening, Conveying	—	—	—	5.2	29.2	65.3
Road Dust	—	—	—	141.4 (117.0)	1,384.6 (1,142.0)	4,359.9 (3,475.3)
Wind Erosion	—	—	—	0.0	0.1 (0.2)	0.2 (0.4)
Exposed Lakebed	—	—	—	0.0	0.1	0.2
Winter Roads	0.002	0.9	0.4	0.0	0.0	0.0
Total Plant Emissions	4.246	4,707.2	1,823.0	346.6 (326.2)	1,760.1 (1,510.0)	5,053.4 (4,159.3)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from this source; t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-27, the change in incinerator dioxin/furans emissions is due to Revision 3. All changes in metal emissions are due to Revisions 4 and 5.

Table B-27 (DAR, Section 7, Appendix 7B, Table 7B3.3-17) Application Case Ekati Plant and Jay Mine Non-Criteria Air Contaminants Emission Summary

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Power Generators	76.1	0.197	0.2	—
Boilers/Heaters	0.1	0.000	0.0	—
Waste Incinerators	0.5	0.000	0.0	1.06×10^{-7} (2.31×10^{-8})
Mine Fleet Exhaust	170.5	0.383	3.3 (0.4)	—
Drilling and Blasting	—	—	2.3 (0.2)	—
Loading and Unloading	—	—	3.6 (3.4)	—
Bulldozing	—	—	27.0 (29.7)	—
Grading	—	—	1.7	—
Crushing, Screening, Conveying	—	—	4.3 (2.3)	—
Road Dust	—	—	356.3 (284.0)	—
Wind Erosion	—	—	0.0	—
Exposed Lakebed	—	—	0.0	—
Winter Roads	0.1	—	0.0	—
Total Plant Emissions	247.2	0.581	398.7 (321.9)	1.06×10^{-7} (2.31×10^{-8})

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from this source; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-28, the changes in drilling and blasting, bulldozing, and wind erosion emission changes are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in road dust emission changes are due to Revision 5.

Table B-28 (DAR, Section 7, Appendix 7B, Table 7B3.3-18) Criteria Air Contaminants Emission Changes Due to Jay Mine

Source Type	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP
Power generators	—	—	—	—	—	—
Boilers	-0.183	-17.2	-4.3	-1.3	-2.0	-2.8
Waste Incinerators	—	—	—	—	—	—
Mine Fleet Exhaust	1.528	1,138.8	683.9	86.8	87.4	75.5
Drilling and Blasting	0.001	0.0	0.0	0.6 (0.1)	7.4 (0.6)	10.3 (0.9)
Loading and Unloading	—	—	—	1.0	6.8	12.7
Bulldozing	—	—	—	2.6 (3.1)	32.6 (38.7)	107.8 (123.8)
Grading	—	—	—	—	—	—
Crushing, Screening, Conveying	—	—	—	—	—	—
Road Dust	—	—	—	47.2(22.7)	462.8 (218.6)	1,462.6 (586.5)
Wind Erosion	—	—	—	0.0	0.0 (0.1)	0.0 (0.2)

Table B-28 (DAR, Section 7, Appendix 7B, Table 7B3.3-18) Criteria Air Contaminants Emission Changes Due to Jay Mine

Exposed Lakebed	—	—	—	0.0	0.1	0.2
Winter Roads	—	—	—	—	—	—
Total Emission Change	1.346	1,121.6	679.6	136.9 (112.4)	594.6 (350.3)	1,669.0 (796.8)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no change from the Base Case emissions; t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-29, changes in metal emissions are due to Revisions 4 and 5.

Table B-29 (DAR, Section 7, Appendix 7B, Table 7B3.3-19) Non-Criteria Air Contaminants Emission Changes Due to Jay Mine

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Power generators	—	—	—	—
Boilers	-0.2	-0.001	0.0	—
Waste Incinerators	—	—	—	—
Mine Fleet Exhaust	112.3	0.267	2.7 (0.2)	—
Drilling and Blasting	—	—	0.8 (0.1)	—
Loading and Unloading	—	—	1.0	—
Bulldozing	—	—	8.5 (10.1)	—
Grading	—	—	—	—
Crushing, Screening, Conveying	—	—	—	—
Road Dust	—	—	119.8 (47.9)	—
Wind Erosion	—	—	0.0	—
Exposed Lakebed	—	—	0.0	—
Winter Roads	—	—	—	—
Total	112.1	0.266	132.7 (59.2)	—

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no change from the Base Case emissions; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-30, the changes in all construction fleet emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling.

Table B-30 (DAR, Section 7, Appendix 7B, Table 7B3.4-2) Construction Fleet Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP
Construction Fleet	0.683 (0.114)	362.9 (60.5)	143.8 (24.0)	21.4 (3.6)	22.0 (3.7)	22.0 (3.7)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-31, changes in VOC and PAH emissions are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. All changes in metal emissions are due to Revision 4.

Table B-31 (DAR, Section 7, Appendix 7B, Table 7B3.4-3) Construction Fleet Non-Criteria Air Contaminants Emissions

Source	Emission Rates (t/y)		
	VOC	PAH	Metal
Construction Fleet	23.0 (3.8)	0.136 (0.023)	0.068 (0.0)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-32, the changes in PM emissions are due to Revision 8. The changes in metal emissions are due to Revision 4.

Table B-32 (DAR, Section 7, Appendix 7B, Table 7B3.4-4) Additional Loading/Unloading Emissions for Construction Case

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Misery Aggregate	0.2	1.6	3.5	0.2 (0.1)
Misery WRSA	0.4	2.8	6.0	0.5
Jay Construction Area	0.4 (13.9)	2.8 (175.4)	6.0	0.5
Total	**1.1 (14.6)**	**7.3 (179.9)**	**15.5**	**1.2 (1.1)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; WRSA = waste rock storage area.

In Tables B-33 and B-34, the changes in metal emissions are due to Revision 4. Table B-33 also contained a typographical error made when compiling data for metal emissions for presentation.

Table B-33 (DAR, Section 7, Appendix 7B, Table 7B3.4-7) Additional Road Dust Emissions for Construction Case

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Construction Fleet	98.9	989.4	2,422.6	198.0 (7.8)

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

Table B-34 (DAR, Section 7, Appendix 7B, Table 7B3.4-9) Additional Wind Erosion Emissions for Construction Case

Source	Emission Rates (t/y)			
	$PM10_{2.5}$	$PM10_{10}$	TSP	Metal
Misery Stockpile	3.22×10^{-4}	2.15×10^{-3}	4.29×10^{-3}	2.79×10^{-4} (1.54×10^{-4})
Misery WRSA	4.35×10^{-4}	2.90×10^{-3}	5.80×10^{-3}	4.74×10^{-4}
Total	**7.57×10^{-4}**	**5.05×10^{-3}**	**1.01×10^{-2}**	**7.54×10^{-4} (6.29×10^{-4})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates; WRSA = waste rock storage area.

In Table B-35, the changes in mine fleet exhaust and drilling and blasting are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in grading and loading and unloading are due to Revisions 6 and 8, respectively.

Table B-35 (DAR, Section 7, Appendix 7B, Table 7B3.4-10) Construction Case Ekati Plant and Jay Mine Construction Criteria Air Contaminants Emission Summary

Source Type	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP
Power Generators	1.442	2,972.7	789.6	51.7	53.2	64.7
Boilers/Heaters	0.264	24.8	6.20	1.9	2.9	4.1
Waste Incinerators	0.529	0.5	1.6	1.1	1.1	1.1
Mine Fleet Exhaust	1.344 (0.775)	949.6 (647.2)	489.3 (369.43)	65.9 (48.1)	67.5 (49.1)	64.9 (46.6)
Drilling and Blasting	0.002	0.0	0.1	1.4 (0.1)	11.9 (1.0)	17.7 (1.5)
Loading and Unloading	—	—	—	3.9 (17.4)	25.3 (197.9)	49.1
Bulldozing	—	—	—	20.1	250.8	872.9

Table B-35 (DAR, Section 7, Appendix 7B, Table 7B3.4-10) Construction Case Ekati Plant and Jay Mine Construction Criteria Air Contaminants Emission Summary

Source Type	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP
Grading	—	—	—	0.6 (5.9)	5.9 (9.9)	20.2
Crushing, Screening, Conveying	—	—	—	8.0	32.0	71.5
Road Dust	—	—	—	193.2	1,912.8	5,311.4
Wind Erosion	—	—	—	0.0	0.1	0.2
Winter Roads	0.002	0.9	0.4	0.0	0.0	0.0
Total Plant Emissions	**3.583 (3.014)**	**3,948.5 (3,646.1)**	**1,287.3 (1,167.4)**	**347.8 (347.5)**	**2,362.4 (2,510.7)**	**6,483.7 (6,443.4)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from this source; t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-36, the changes in mine fleet exhaust are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. The change in incinerator dioxin/furans emissions is due to Revision 3. All changes in metal emissions are due to Revision 4 and 8. Metal emissions for road dust also had a typographical error made when compiling data for the report table.

Table B-36 (DAR, Section 7, Appendix 7B, Table 7B3.4-11) Construction Case Ekati Plant and Jay Mine Construction Non-Criteria Air Contaminants Emission Summary

Source Type	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Power Generators	76.1	0.197	0.2	—
Boilers/Heaters	0.2	0.001	0.0	—
Waste Incinerators	0.5	0.000	0.0	1.06×10^{-7} (2.31×10^{-8})
Mine Fleet Exhaust	81.2 (62.0)	0.252 (0.138)	0.7 (0.2)	—
Drilling and Blasting	—	—	1.4 (0.1)	—
Loading and Unloading	—	—	3.9 (3.6)	—
Bulldozing	—	—	70.2 (71.3)	—
Grading	—	—	1.7	—
Crushing, Screening, Conveying	—	—	4.8 (2.3)	—
Road Dust	—	—	434.5 (236.1)	—
Wind Erosion	—	—	0.0	—
Winter Roads	0.1	—	0.0	—
Total Plant Emissions	**158.1 (138.9)**	**0.450 (0.337)**	**517.4 (315.6)**	**1.06×10^{-7} (2.31×10^{-8})**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from this source; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-37, the changes in mine fleet exhaust emission changes are due to a typographical error made when compiling data for the report tables. Correct values were used in the modelling. Changes in loading and unloading and are due to Revision 8.

Table B-37 (DAR, Section 7, Appendix 7B, Table 7B3.4-12) Criteria Air Contaminants Emission Changes Due to Jay Mine Construction

Source Type	Emission Rates (t/y)					
	SO_2	NO_X	CO	$PM10_{2.5}$	$PM10_{10}$	TSP
Power generators	—	—	—	—	—	—
Boilers	—	—	—	—	—	—
Waste Incinerators	—	—	—	—	—	—
Mine Fleet Exhaust	0.683 (0.114)	362.9 (60.5)	143.8 (24.0)	21.4 (3.6)	22.0 (3.7)	22.0 (3.7)
Drilling and Blasting	—	—	—	—	—	—
Loading and Unloading	—	—	—	1.1 (14.6)	7.3 (179.9)	15.5
Bulldozing	—	—	—	13.9	175.4	632.9
Grading	—	—	—	—	—	—
Crushing, Screening, Conveying	—	—	—	2.7	2.7	6.2
Road Dust	—	—	—	98.93	989.4	2,422.6
Wind Erosion	—	—	—	0.0	0.0	0.0
Winter Roads	—	—	—	—	—	—
Total Emission Change	**0.683 (0.114)**	**362.9 (60.5)**	**143.8 (24.0)**	**138.0 (133.8)**	**1,196.9 (1,351.0)**	**3,099.3 (3,080.9)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from this source; t/y = tonnes per year; SO_2 = Sulphur oxide; NO_X = nitrogen oxides; CO = carbon dioxide; $PM10_{2.5}$ = particulate matter with particle diameter less than 2.5 µm; $PM10_{10}$ = particulate matter with particle diameter less than 10 µm; µm = micrometre; TSP = total suspended particulates.

In Table B-38, the changes in mine fleet exhaust emission are due to a typographical error made when compiling data for the report tables. The changes in metal emission changes are due to Revision 4 and 8 and a typographical error made when compiling data for road dust.

Table B-38 (DAR, Section 7, Appendix 7B, Table 7B3.4-13) Non-Criteria Air Contaminants Emission Changes Due to Jay Mine Construction

Table B-10 (DAR, Section 7, Appendix 7B, Table 7B3.2-21) Base Case Bulldozing Emissions

Source Type	Emission Rates (t/y)

Table B-10 (DAR, Section 7, Appendix 7B, Table 7B3.2-21) Base Case Bulldozing Emissions

	VOC	PAH	Metal	Dioxins/Furans
Power generators	—	—	—	—
Boilers	—	—	—	—
Waste Incinerators	—	—	—	—
Mine Fleet Exhaust	23.0 (3.84)	0.136 (0.023)	0.1 (0.0)	—
Drilling and Blasting	—	—	—	—
Loading and Unloading	—	—	1.2 (1.1)	—
Bulldozing	—	—	51.7	—
Grading	—	—	—	—
Crushing, Screening, Conveying	—	—	0.5 (—)	—
Road Dust	—	—	198.0 (7.8)	—
Wind Erosion	—	—	0.0	—
Winter Roads	—	—	—	—
Total	**23.0 (3.84)**	**0.136 (0.023)**	**251.5 (61.1)**	**—**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

— no emissions from this source; t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.

In Table B-39, the changes in VOC are due to Revision 1, PAH are due to Revisions 2 and 3, metal changes are due to Revision 4, and dioxins/furans emissions are due to Revision 3.

Table B-39 (DAR, Section 7, Appendix 7B, Table 7B4.1-2) Diavik Mine Non-Criteria Air Contaminants Emission Summary

Table B-10 (DAR, Section 7, Appendix 7B, Table 7B3.2-21) Base Case Bulldozing Emissions

Season	Emission Rates (t/y)			
	VOC	PAH	Metal	Dioxins/Furans
Frozen Season	153.3 (290.0)	0.599 (14.29)	222.4 (152.5)	3.082E-08 (1.541E-08)
Non-Frozen Season	76.4 (144.7)	0.298 (5.12)	89.2 (71.4)	1.541E-08 (7.706E-09)
Total	**229.7 (434.7)**	**0.897 (19.42)**	**311.7 (223.9)**	**4.623E-08 (2.312E-08)**

Note: Shaded areas in the table indicate that a value had been changed from the value presented in the DAR. Values in parentheses are the original values shown in the DAR.

t/y = tonnes per year; VOC = volatile organic compound; PAH = polycyclic aromatic hydrocarbon.