

Dear Editor,

We would like to ask your approval for some minor changes in our manuscript. During proofread we noticed some typos and minor errors and would like to revise this for the final version to ensure the accuracy and clarity of our work. Please see below our minor revision requests,

Page 1 Line 39 and Page 12 Line 26, We would like to revise how we present our overall finding regarding the emission rate estimation in the abstract and conclusions sections. In current version, we provide the average of all uncertainties. However, since not all uncertainties are directly comparable anymore (this has been applied throughout the manuscript following referee's comments), this may be misleading. We believe it would be more appropriate to present the standard deviations of all the emission rate estimations and revise the corresponding texts as below.

*We estimate that the seep emission rate falls in the range of 7.8 to 16.0 kgCH<sub>4</sub> h<sup>-1</sup> and the average across all methods and flights were estimated as 12.3 kgCH<sub>4</sub> h<sup>-1</sup> with a standard deviation of 2.4 kgCH<sub>4</sub> h<sup>-1</sup>.*

*Despite the differences in equipment and analysis methodologies used here and their associated uncertainties, the present work estimates that the methane emission rate of the investigated seep is in the range of 7.8 to 16.0 kgCH<sub>4</sub> h<sup>-1</sup> with an average value of 12.3 kgCH<sub>4</sub> h<sup>-1</sup> and standard deviation of 2.4 kgCH<sub>4</sub> h<sup>-1</sup> (see earlier seepage rate reported as 16.1 kgCH<sub>4</sub> h<sup>-1</sup> in Section 2.1).*

Page 3 Line 19, Here since the coordinate already indicate W there is no need to have a minus sign, therefore we would like to remove this minus sign and revise the text as follows.

*Our study site is a known geological CH<sub>4</sub> seep located at the outer Mackenzie River delta, west of Richards Island, Northwest Territories, Canada (69.319583° N, 135.477520° W), where there is an abundance of water bodies throughout the extensive wetlands (Fig. 1a).*

Page 9 Line 39, We realized we have a minor rounding error, the emission rate should be 13.3 not 13.2 and want to clarify which numbers belong to which curtain, thus we would like to revise the text as below.

*Using the CKMB approach, emission rates for the UAVMPI platform are calculated as 13.3 ± 5.5 and 14.3 ± 6.0 kgCH<sub>4</sub> h<sup>-1</sup> for CP-1 and CP-2, respectively.*

Page 10 Line 31, We have a typo here in the downwind distance which should be 150 not 160m, so we would like to revise the text as follow.

*However, in comparing Figs. 8 and 9, it is apparent that the capacity of the near-field Gaussian plume formalism to reproduce the shape of the plume in three dimensions remains limited, at least for downwind distances in the 80 to 150m range with short observation times and atmospheric conditions similar to those presented here.*

Page 12 Line 29, We would like to add a statement here that will refer to the previous measurements for this seep. This number is already presented in Section 2.1 Page 3 Line 32. We think that this can be stated here as well to help readers. The revised text would be as follow.

*Despite the differences in equipment and analysis methodologies used here and their associated uncertainties, the present work estimates that the methane emission rate of the investigated seep is in the range of 7.8 to 16.0 kgCH<sub>4</sub> h<sup>-1</sup> with an average value of 12.3 kgCH<sub>4</sub> h<sup>-1</sup> and standard deviation of 2.4 kgCH<sub>4</sub> h<sup>-1</sup> (earlier seepage rate reported as 16.1 kg h<sup>-1</sup> see Section 2.1).*