

## ***Interactive comment on “Methane emissions from a Californian landfill, determined from airborne remote sensing and in-situ measurements” by Sven Krautwurst et al.***

### **Anonymous Referee #2**

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Krautwurst et al. determined methane emissions from a landfill using both column and in-situ measurements aboard the Twin Otter aircraft. The detailed description of the sampling strategy and the mass balance approach, as well as the analysis of the uncertainties are very useful in general for quantifying methane emissions on a relatively small area, which is significantly larger than point sources. The methodology is sound. It should be considered for publication after taking into account the following comments:

P3/L22: remove “of” after aboard

P4/Figure 1 caption: 27.08.2017 → 27.08.2014

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P5/L21: G-2301f is not the flight ready instrument Gxxxx-m, and the aircraft measurements may be affected by ambient pressure change. The mobile version Picarro analyzer have been used in numerous campaigns/publications. Were the Picarro measurements calibrated during flight? The uncertainty of the Picarro measurements should be given, even though it might be a small term compared to the enhancement.

P5/L29: There are several peer-reviewed papers on water corrections that can replace Rella, 2010.

P9/L5-6: what are exactly the vertical profiles from the U.S. standard atmosphere?

P21/L13-16: The spatial resolution of the measurements also depends on the response time of the analyzer? It is therefore important to mention the flow rate of the measurements, and the volume at STP of the cavity to calculate the response time.

P23/L23-24: please also give the range of the deviations according to the assumed enhancement of 50% or 150%.

P27/L2: missing yr-1

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Interactive comment on Atmos. Meas. Tech. Discuss., doi:10.5194/amt-2016-391, 2016.

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