

# Effect of boundary conditions on the methane oxidation efficiency in landfill pilot-scale biofilters

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## SUPPLEMENTARY MATERIAL I

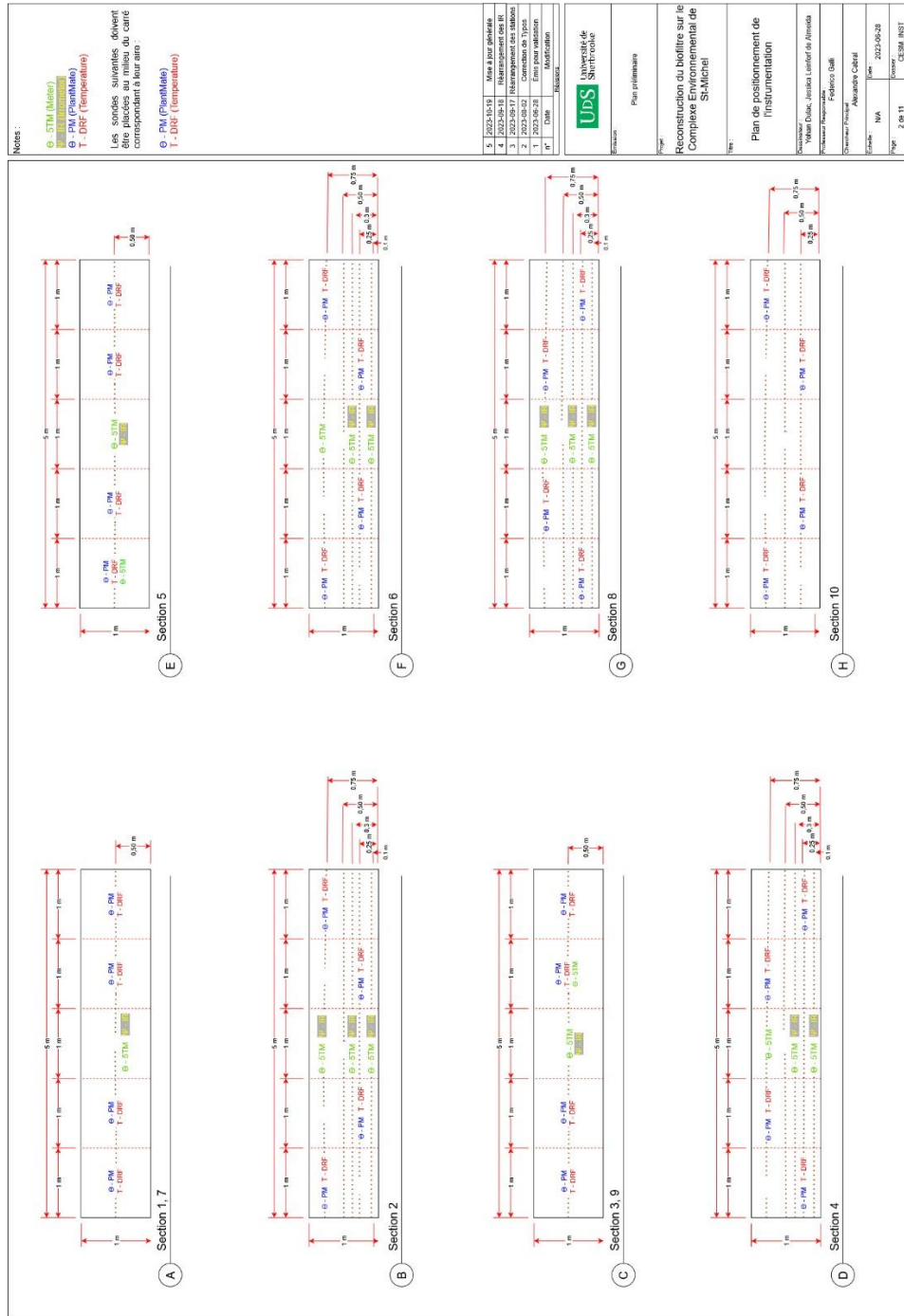


Figure S 1. Schematic longitudinal cross-sections of the CESM biofilters showing the spatial distribution of monitoring points along the biofilter length and depth. Sections (1–10) represent successive transverse cuts along the 10 m biofilter bed.

## SUPPLEMENTARY MATERIAL II

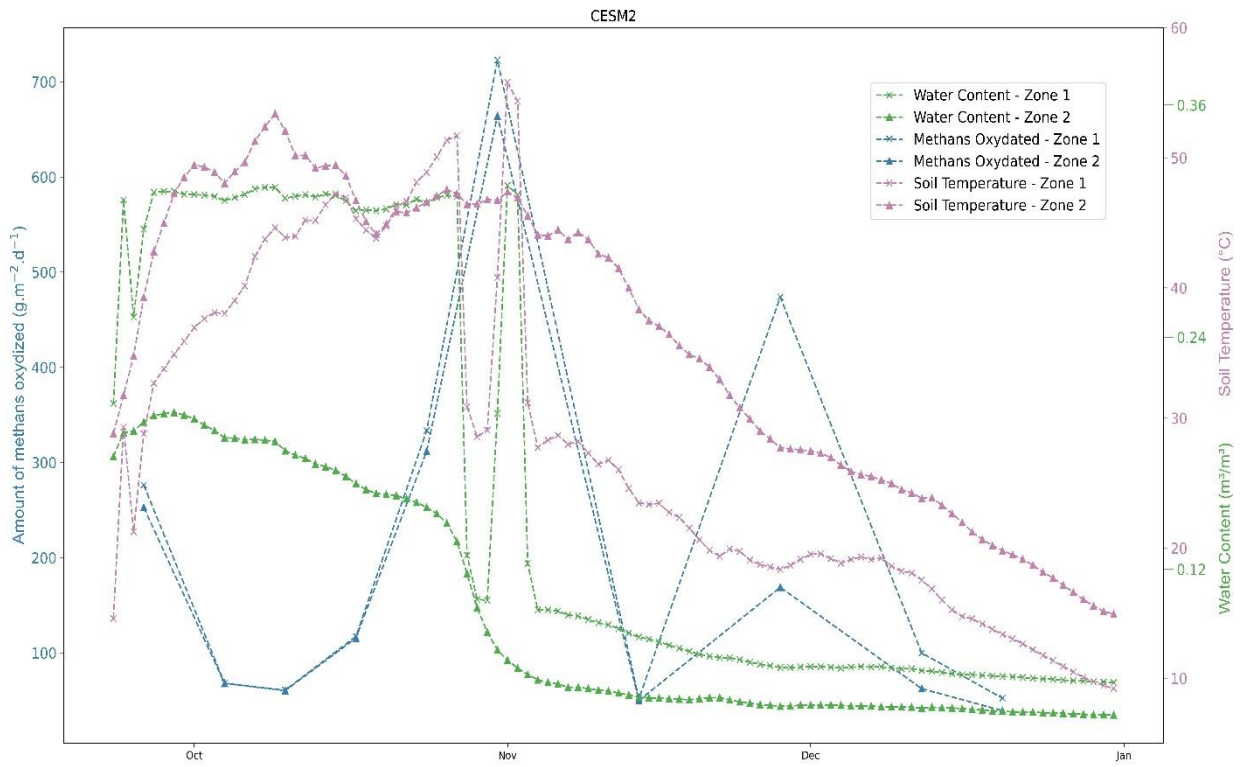


Figure S 2. Overall water content, temperature and amount of methane oxidized for Zones 1 and 2 - CESM 2.

## SUPPLEMENTARY MATERIAL III

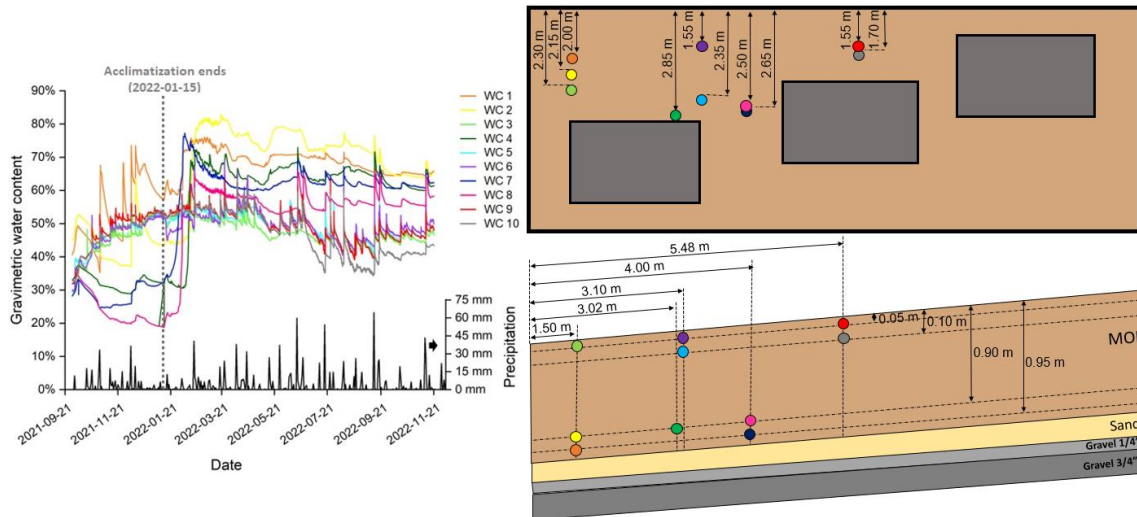


Figure S 3. Water content profiles - CESM1 (Almeida et al. 2024).

### SUPPLEMENTARY MATERIAL IV

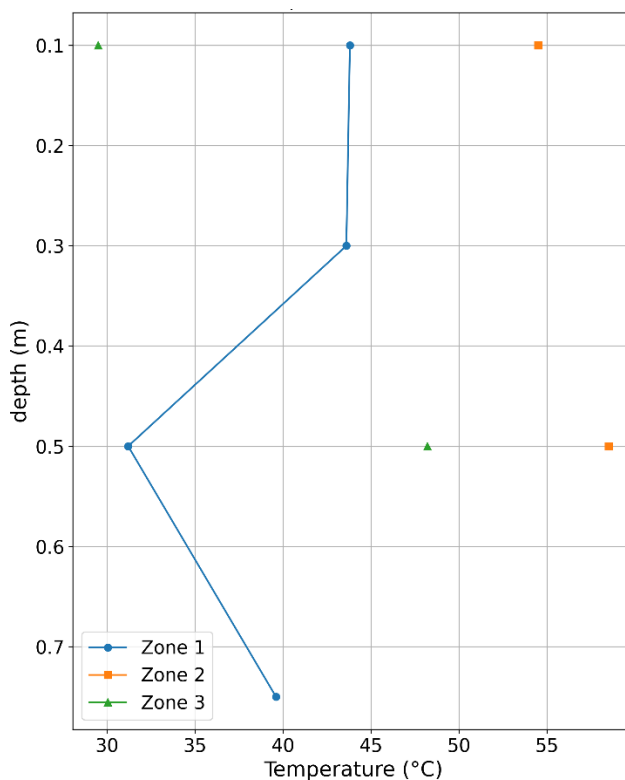


Figure S 4. Temperature profile for CESM2 in October 2024.

### SUPPLEMENTARY MATERIAL V

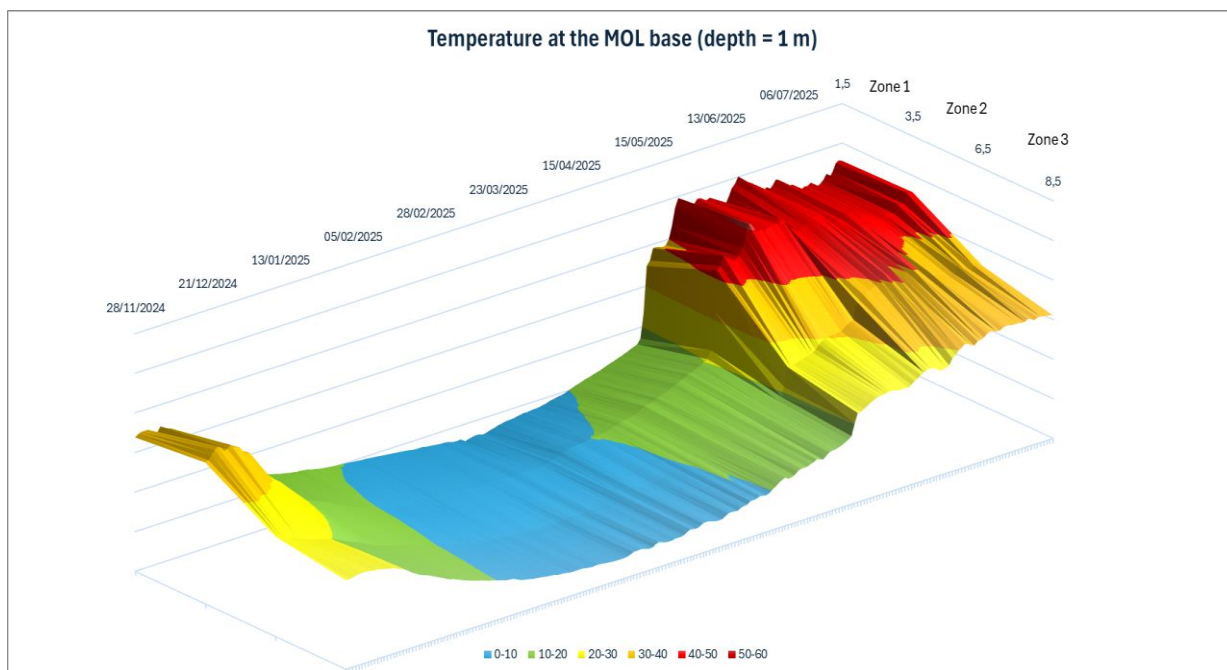


Figure S 5. Temperature at the MOL base for CESM2.

**Note:** Probes locations at the base: Zone 1 situated from 1.5 m to 3.5 m, Zone 2 from 3.5 m to 6.5 m and Zone 3 located from 6.5 m to 8.5 m.

Table S5. Temperature at MOL base for CESM2 (November and December 2024).

Zone 1	Zone 2	Zone 3
1.5 m – 3.5 m	3.5 m – 6.5 m	6.5 m – 8.5 m
Average Temperature 2024	Average Temperature 2024	Average Temperature 2024
28.3	24.9	19.9
Minimum	Minimum	Minimum
16.9	14.3	14.1
Maximum	Maximum	Maximum
38.7	38.7	25.2

### SUPPLEMENTARY MATERIAL VI

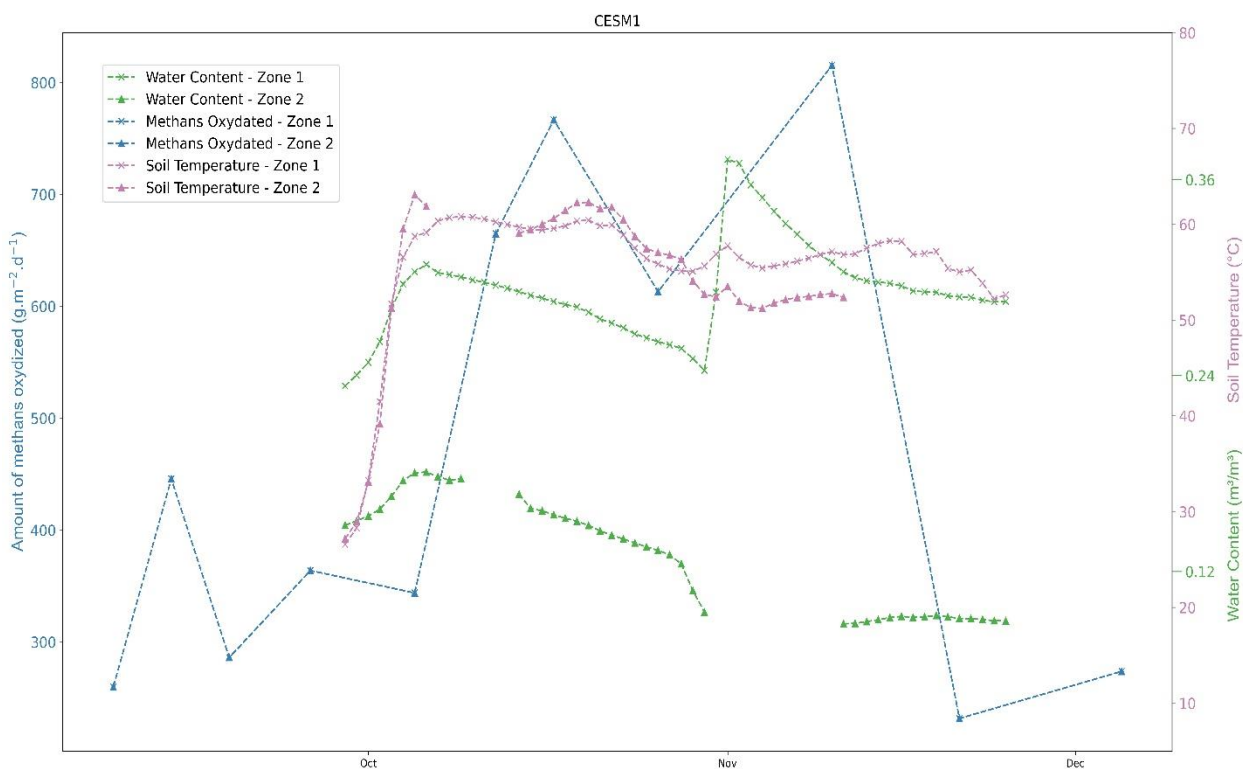


Figure S 6. Overall water content, temperature and amount of methane oxidized for zones 1 and 2 - CESM 1.