

Mesures de méthane par ballon-sonde - 17/08/2021 - Kiruna

Félix Langot

Supervisé par C. Crevoisier, T. Lauvaux
LMD - Palaiseau

5 avril 2022



2021 08 17

time : UTC

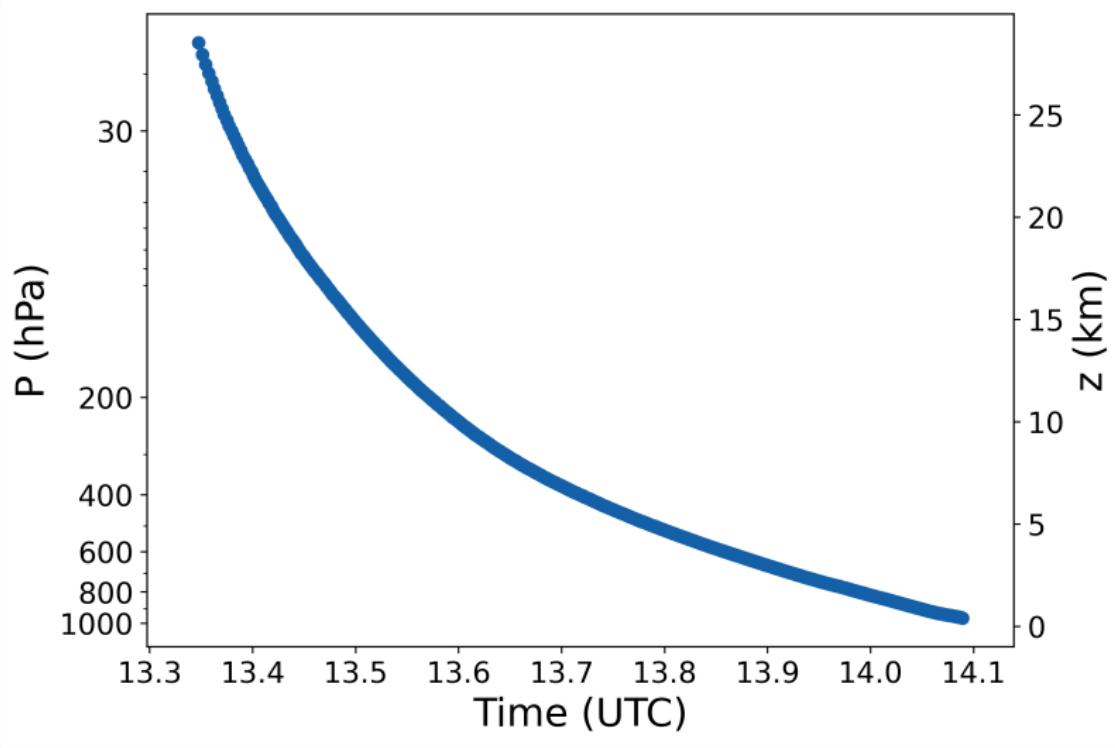
- Latitude (deg. N) • CH₄ (ppb)
- Longitude (deg. E) • sd CH₄ (ppb)
- GPS geopotential altitude (km) • CO (ppb)
- Pressure (hPa) • sd CO (ppb)
- Ambient Temperature (K) • N₂O (ppb)
- Ambient Relative Humidity (%) • sd N₂O (ppb)
- CO₂ (ppm) • H₂O (ppb)
- sd CO₂ (ppm) • sd H₂O (ppb)

- Take-off latitude 67.88891 deg.N
- Take-off longitude 21.08227 deg.E
- Take-off site ground pressure 968.744 hPa
- Take-off site ground altitude 0.349 km
- Burst altitude 28.918 km
- Landing site latitude (AirCore) 67.98390 deg.N
- Landing site longitude (AirCore) 21.31240 deg.E
- Landing site ground pressure (AirCore) 962.477 hPa
- Landing site ground altitude (AirCore) 0.410 km
- Landing site (AirCore) : In the middle of a little forest, in a wetland area
- Separation AirCore/Radiosonde : No
- Take-off time 12 :00
- Burst time 13 :21
- Landing site time (AirCore) 14 :05
- Closing valve status : manual 15 :01
- AirCore analysis starting time 16 :22
- AirCore analysis ending time 17 :06

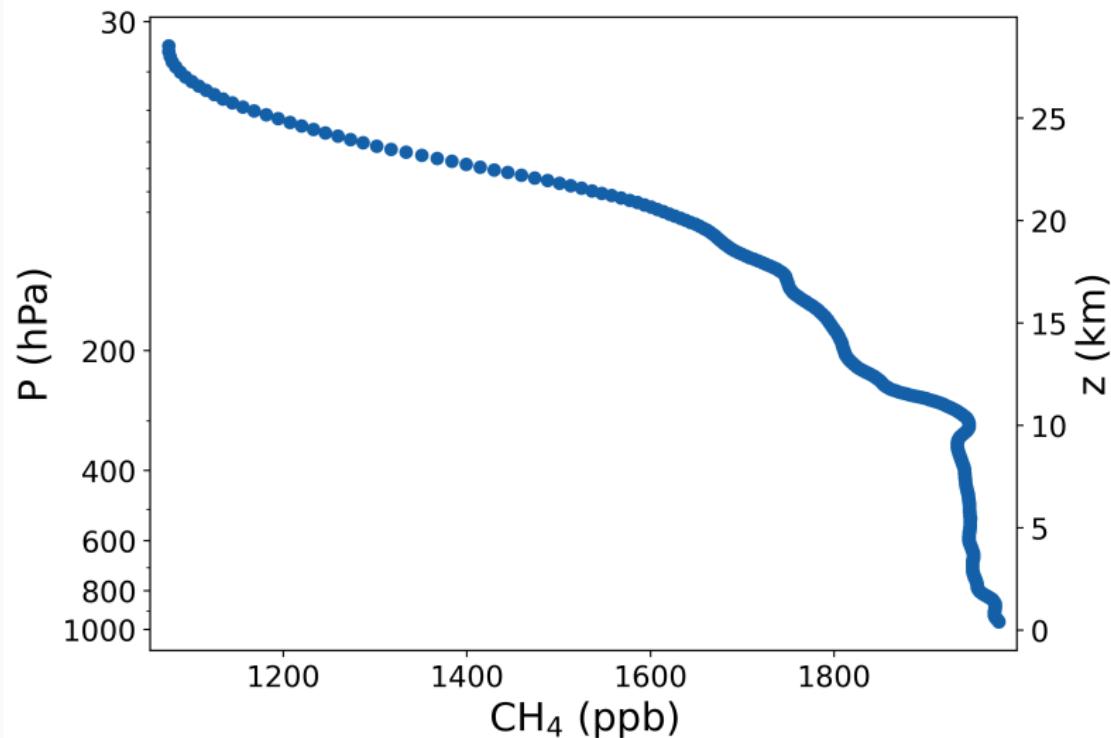
Infos

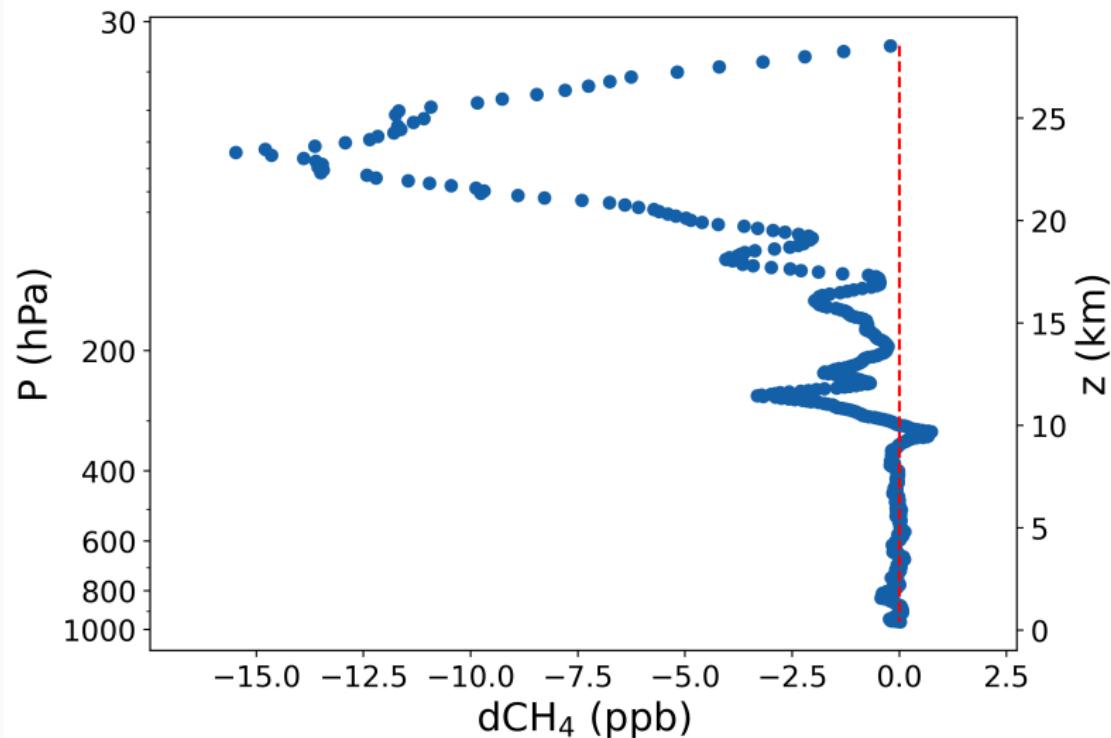
- AirCore ID : 35
- Length, external diameter and width of AirCore tubes : 23m, 8mm, 0.20mm | 46m, 4mm, 0.15mm
- CO₂a, CH₄a, COa, H₂Oa data measured with a Picarro G2401.
- N₂O_b, CO_b, H₂O_b data measured with a Picarro G5310.
- Measure orientation : top of profile analyzed first
- Mole fraction measurements are corrected to WMO reference scales.
- Lat, Lon, Alt, T, RH provided by the M20 meteosonde where the air was sampled.
- P is provided by the M20 meteosonde (interpolated from surface pressure, meteosonde altitude, temperature and relative humidity) where the air was sampled.

Temperature within AirCore tubes is measured by 6 thermistors positioned along the AirCore tube(s).



CH_4





CH_4

