

**Český
hydrometeorologický
ústav**



National Atmospheric Observatory Košetice (NAOK)

- NAOK is situated in the middle of Czech Republic
- VOC samples are transported to central emission laboratory of Czech Hydrometeorological Institute (CHMI) in Prague



VOCs Sampling on NAOK

- Twice a week
- 10 minute sampling into the canisters
- Canisters are pressurized (~30 PSI)

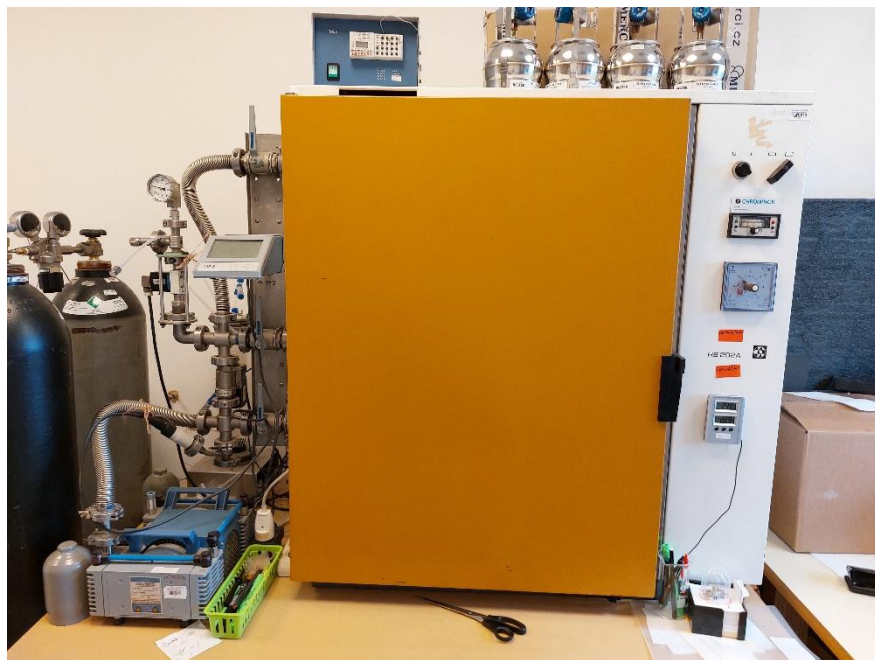


Analytical instrumentation

- TD: Markes Unity-xr and Air server-xr
- GC: Agilent 7890B with FID detectors
- Two columns system:
 - A. HP-AL/S 50m x 0,320 mm x 8 μ m
 - B. HP-1 60m x 0,250 mm x 1 μ m



Canister cleaning



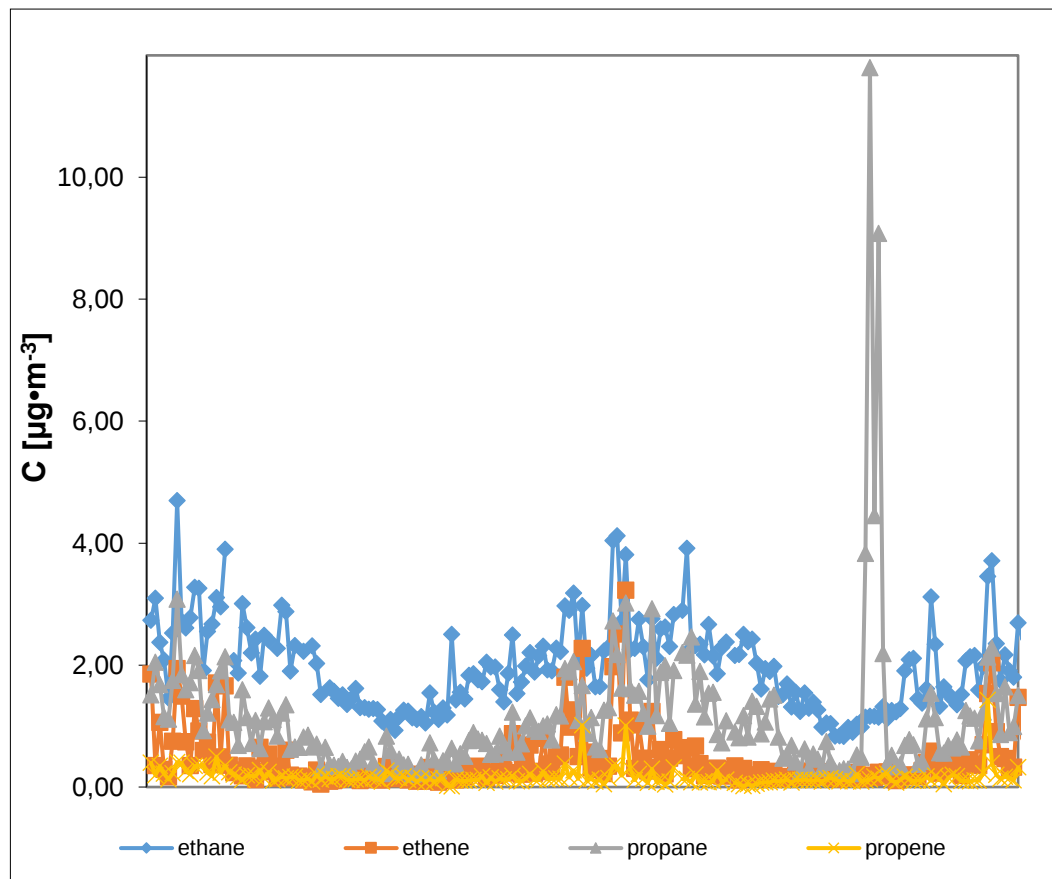
- Old System
- CHROMPACK HS 202A



- New System
- TO-Clean – Automated Canister Cleaner (Wasson - ECE).

QA/QC - procedures

- Calibration - CRM NPL gas cylinders (4ppb, 10 ppb)
- QC samples – control chart
- Blank samples
- Verification of data by checking long-time trends
- Double checking out of trend values (integration, events, blanks, QC samples)



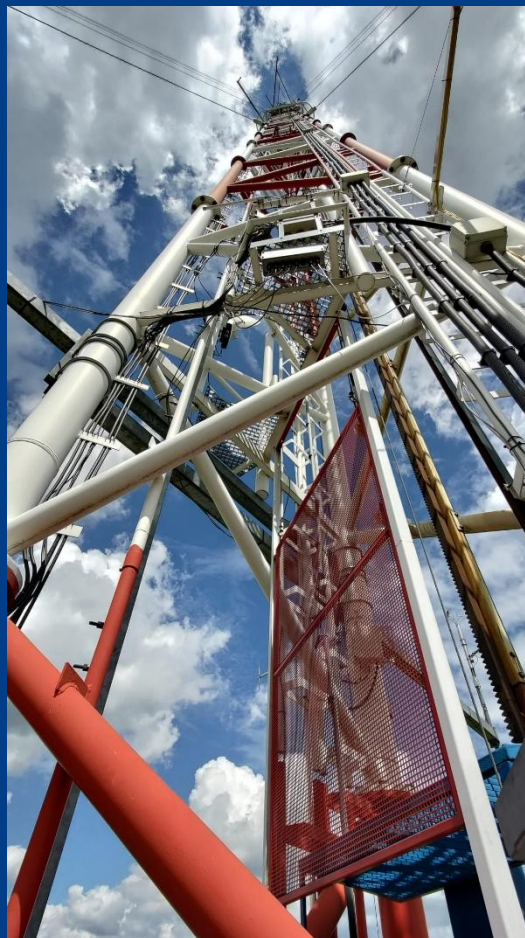
Possible cause of invalid data

- 10.7. 2024 – 23.10.2024: reconstruction on measuring site by heavy machinery
- High concentrations of propane and n-butane (invalid data)
- Other compounds flagged - 559 (Unspecified contamination or local influence - but considered valid)





Thank you for your attention



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