

About the flow issue with the silica cartridges, I tried today three tests :

- flow test with a cartridge from a whole new box I had opened just before the test

- flow test with a cartridge which had spent the whole night in a glass dessiccator with P2O5 + KOH

- flow test with a cartridge which had spent the whole night in an oven at 50°C (and back to ambient temperature in the above glass dessiccator)

All three cartridges gave flows about 8 mL/hr, so that the 500 mL would pass in between 60 and 70 hours. So I don't think there is any clogging problem due to humidity of the silica.

Our sample is a commercial gasoil (we didn't add our marker for the moment) which must have very low water level (< 200 ppm according to EN590 standard).

Do you see any solution to this issue ? Do other applicants have the same problem ?

- In order to increase the flow of sample through the cartridges, a SPE vacuum manifold should be used (as depicted below). The manifold must be connected to a small vacuum pump. The silica cartridges fit in standard luer-fittings (16 positions shown below).
- Apply enough vacuum to obtain a flow from 2-3 ml min⁻¹ up to 5 ml min⁻¹. Lower flow rates makes it easier control the volumes when collecting the different fractions. Discrete sampling of the fractions is facilitated by turning the small valves on the luer-lock fittings between open/close positions.
- We estimate that 500 ml would take about 3 hours to pass through cartridges. Flow rates obtained should be reported.
- Conditioning of the cartridges with hexane is necessary as explained in Annex IV.

