DAT Facts™

## Method D-6350
# Mercury Sampling and Analysis in Natural Gas by Cold Vapor-Atomic Fluorescence Spectroscopy (CV-AFS)

The method uses a gold coated fused silica sand trap to pre-concentrate the mercury. The analysis consists of the thermal desorption of the mercury followed by the analysis using CV-AFS (cold vapor atomic fluorescence spectroscopy). This method is capable of achieving low detection limits in excess of 0.001 ug/$m^3$.

The sampling method consists of a probe, regulator and a dry flow meter. Only stainless steel tubing and other connections should be used for sampling. The sampling flow rate should be between .1 and .2 l/min for between 15-30 minutes.

Two tubes connected in series are used assess breakthrough. Hydrogen sulfide has been shown to be an interference in D5954.

The updated method ASTM D-6350 uses a shorter sampling time therefore is less prone to interference from hydrogen sulfide.

It is important to use only gold coated fused silica traps which have a robust gold coating. If minimal coated gold traps are used breakthrough may be observed.

DAT Laboratory is one of the only providers of certified gold coated fused silica tubes for use in either ASTM D-5954 or ASTM D-6350 sampling.


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