December 16, 2015

Scale Inhibitor Residuals (Phosphorus Based)

Summary:

A scale inhibitor residual analysis performed by Oilfield Labs of America closely follows the prescribed methodologies prescribed in API RP 45 with regard to metals analysis. We follow sample preservation directions where practical. Phosphorus is determined by SM 3500 - ICPES-OES. The result is either compared against a known curve of the SI product and reported out as mg/L Product or reported out as mg/L PO_4

Instrumentation:

Inductively Coupled Argon Plasma Optical Emission Spectroscopy- (ICP-OES) is a mature, accepted method of determining elemental content of aqueous solutions. Our instrumentation is state of the art, computer controlled and automated. We use a simultaneous configured system that can determine any number of elements all at one time rather than individually like inefficient AA or sequential ICP instrumentation. Sample processing times are approximately 3 minutes/sample. Additionally, due to the advanced resolution of today' optical grading's and electronic signal detection used, most spectral interferences experienced in classical ICP technology, do not occur in today's advanced models. Our ICP's also have auto-samplers configures to run in tangent with the vendor software. This allows unattended operation. This coupled with smart software, will recognize when the instrument is out of calibration and stop the run.

Quality Assurance:

All analytical runs where customer samples are analyzed are required to pass routine QA samples at prescribed levels of accuracy several times during the analytical run. The level of accuracy is set at 10%. If the QA sample does not pass for the element in question, the problem is corrected and the sample is re-analyzed. QA data relevant to a particular sample can be provided upon request. Blanks are also added and checked against the calibration curve to insure accuracy at the bottom of the curve. These are added at the same frequency of the QA samples.