IR 7383 Revisions Since April 2013 Publication

Revision January 2015

SOP 21

1. Updated equations 2 and 3 to apply the compressibility factor to the volume of the prover rather than the nominal volume. This change does not produce significant changes in volume or corrections (it is less than the uncertainty and resolution of the LPG provers).
2. Updated section 3.3 and equation 7 to clarify the volume correction due to compressibility of water and update terminology. This change does not produce any changes in the pressure corrections.
3. Added a statement in the uncertainty section 5.4: "Factors that are usually insignificant are uncertainties associated with viscosity of the water as a calibration medium and uncertainties associated with the compressibility of water."

Revision January 2016

SOP 14

1. Added instructions for using the calculated volume from Run 1 and Run 2 to calculate and report the mean volume at the reference temperature.
2. Added notes regarding the values from Run 1 and Run 2 that are entered into standard deviation or range charts.

SOP 18

1. Added that replicate runs must agree within 0.02 % OR the limits on a standard deviation or range chart, whichever is smaller.
2. Added instructions for using the calculated volume from Run 1 and Run 2 to calculate and report the mean volume at the reference temperature.
3. Added notes regarding the values from Run 1 and Run 2 that are entered into standard deviation or range charts if there are adjustments.

SOP 19

1. Added that replicate runs must agree within 0.02 % OR the limits on a standard deviation or range chart, whichever is smaller.
2. Added instructions for using the calculated volume from Run 1 and Run 2 to calculate and report the mean volume at the reference temperature.
3. Adjusted neck scale error limits to match NIST Handbook 105-3, 2010.
4. Added notes regarding the values from Run 1 and Run 2 that are entered into standard deviation or range charts if there are adjustments.

SOP 21

1. Added that replicate runs must agree within 0.02 % OR the limits on a standard deviation or range chart, whichever is smaller.
2. Added instructions for using the calculated volume from Run 1 and Run 2 to calculate and report the mean volume at the reference temperature.
3. Adjusted neck scale error limits to match NIST Handbook 105-4, 2010.
4. Added notes regarding the values from Run 1 and Run 2 that are entered into standard deviation or range charts if there are adjustments.

SOP 26

1. Added that replicate runs must agree within 0.02 % OR the limits on a standard deviation or range chart, whichever is smaller.
2. Added instructions for using the calculated volume from replicate runs to calculate and report the mean volume at the reference temperature and if there are directional differences (e.g., bidirectional provers) that the mean volume for each direction is to be reported.