

**GAS QUALITY ANALYTICAL AND CALCULATION METHODS AND PROCEDURES  
DOCUMENTS AND STANDARDS**

| <b>Procedure/Method</b>   | <b>Related Industry Standard</b>   |
|---------------------------|--|
| Spot or Composite Sample  | API 14.1, GPA 2166   |
| Online Gas Chromatograph  | API 14.1, GPA 2145, GPA 2261   |
| Lab Chromatograph         | GPA 2172, GPA 2145, GPA 2261, GPA 2198, GPA 2286   |
| GPM Calculation           | GPA 2145   |
| Heating Value Calculation | API 14.1, GPA 2145, GPA 2172, AGA 5, AGA 8   |
| H <sub>2</sub> S          | ASTM 4810; Length of Stain Tube Method;<br>Equipment Manufacturer's Recommended Practice |
| Total Sulfur              | ASTM D 3246;<br>Equipment Manufacturer's Recommended Practice                            |
| H <sub>2</sub> O          | Length of Stain Tube Method; GPA 2145;<br>Equipment Manufacturer's Recommended Practice  |
| HDP Calculation           | Soave Redlich Kwong or Peng Robinson Equation of State                                   |
| HDP Measurement           | Bureau of Mines Chilled Mirror Apparatus   |

Effective November 1, 2013