VALIDATING QUALITY AND COMPOSITION – SGS RESERVOIR FLUID (PVT) STUDIES
The FluidPro PAL™ is equipped with a high pressure, variable temperature PVT cell rated to 20,000 psia at temperatures of 20°F to 350°F. The Mini-PVT™ and Mini-GOR™ systems are capable of performing conventional phase behaviour (PVT) testing normally available only in fixed labs. This includes PVT studies, fluid rheology, compositional measurements to C36+ and physical properties of atmospheric oils and brines – onsite and on demand.

MINI-PVT MEASUREMENT CAPABILITIES

Sample Quality Assessment & Compositions

• Oil Base Mud (OBM) contamination by skimming and/or subtraction
• Onsite HP/HT sample validation (and transfers)
• BS&W (conforms to ASTM, IP, API, ISO, DIN and NF M methods)
• Karl Fisher water content (conforms to ASTM, IP, API, BS and ISO methods)
• High-precision gas/oil ratio (GOR) and shrinkage measurements
• Extended gas compositions, heating capacity, gravity, critical properties
• Liquid compositions to C36+ by capillary chromatography
• H₂S, N₂, CO₂, He and natural gas analysis by gas chromatography
• Molecular weight by freezing point depression
• Stock Tank Oil API gravity, density, molecular weight

Wellstream Recombinations

• Calculated recombined wellstream composition
• Physical recombination to GOR or saturation pressure
• 0-Flash analysis of recombined sample for quality control

Phase Behaviour Measurements

• Constant Composition Expansion (CCE)
• Differential Liberation (DL) or Constant Volume Depletion (CVD)
• Reservoir Fluid Viscosity by shear-based capillary viscometry
• Separator tests, oil shrinkage and gas/oil ratio

Technical Specifications

• Temperature Range: 20° F to 350° F
• Pressure Range: 0 psia to 20,000 psia
• Sample Volume Requirement: ~100 ml

Range of Applications

• Restoration/transfers
• 0-Flash with OBM contamination
• Sample quality assessment tests
• PVT studies
• Fluid rheology

Range of Samples

• Bottom-hole samples
• Wellhead samples
• Separator samples
• Pipeline samples

FOR MORE INFORMATION ON MINI-PVT, CONTACT SGSUPSTREAM@SGS.COM, CALL +1 (832) 813 0145 OR VISIT WWW.SGS.COM/OGC