Natural Gas and Natural Gas Liquids

DCG Partnership reference standards are individually prepared and made according to customer specifications. Our standards are gravimetrically blended and N.I.S.T. traceable by weight with the reported values verified by one or more analytical techniques. The following is a partial listing of reference standards and products that are offered.

**CALIBRATION STANDARDS**

**Natural Gas Standards**
- With Hydrogen Sulfide
- With High Carbon Dioxide
- With High Ethane
- For Hexanes Plus Backflush
- For Extended Analysis
- For High, Medium, and Low BTU gas
- For All Types of NG Analyzers
- BTU Standards
- Specific Gravity Standards
- BTEX Standards
- NG Standards 1, 2 & 3 in One Liter Refillable Cylinder
- Custom Standards

**Natural Gas Liquids Standards**
- NGL #'s 5 & 6 with or without Neopentane
- E/P Standards
- Condensate Standards
- Custom Standards

**Hexanes Plus Fractions (Gravimetrically prepared and verified by one or more analytical techniques)**
- Hexanes Plus NP
  Designed for C6+ backflush applications for which the desired C6+ breakdown is 69.5% C6, 23% C7, 6% C8, 1.5% C9
- Hexanes Plus CE
  Designed for C6+ backflush applications for which the desired C6+ breakdown is 45% C6, 35% C7 & 20% C8
- Hexanes Plus BF
  Designed for C7+ backflush applications and contains six C6's, C7, C8, C9, C10.
- Hexanes Plus EX
  Designed for extended analysis applications, contains 58 compounds from C6 - C10

**Audit Standards & Round Robin Standards**
- DCG prepares Audit and Round Robin Standards to our customer's specifications for auditing their own facilities, custody transfer points, customer facilities and vendor Facilities. Blend records are kept confidential.
Round Robin Programs
- DCG can custom design a Round Robin program to meet specific customer needs, from preparing Calibration Standards to managing the entire program. Program records are kept confidential.

Secondary Verification of Calibration Standards
- For those critical applications where a secondary verification of a DCG Calibration Standard is desired, we work with several approved analytical laboratories to assist in this process.

Liquefied Petroleum Gas Standards
- Custom standards
  - Hydrogen Sulfide
    - ppb, ppm and % levels in Methane, Nitrogen, Helium

Total Sulfur Standards
- Gas Phase (N₂, He, C₁, C₂, C₃, C₃= Matrices, ppb, ppm & % levels)
- Liquid Phase (LPG, ppb, ppm to % levels)

Oxygen in Nitrogen or Helium
- ppm to % levels

Total Fluoride Standards
- ≥ 1 ppm Total Fluoride from 2-Fluoropropane in N-Butane by weight

Low Level Oxygenate Standard
- Contains 50 ppm each of the following by weight: Methanol, N-Propanol (1-Propanol) Isopropanol (2-Propanol), N-Butyl Alcohol (1-Butanol), Sec Butyl Alcohol (2-Butanol) 2-Butanone (Methyl Ethyl Ketone), MTBE, Ethanol, Acetone, Tertiary Butyl Alcohol (2-Methyl-2-Propanol), Isobutyl Alcohol (2-Methyl-1-Propanol), TAME, SBME, ETBE, & 200 ppm of Dimethyl Ether by weight in N-Butane

Custom Standards available upon request

SAMPLE ANALYSIS

Methanol Analysis in Natural Gas
Total Sulfur Analysis
- In diesel and gasoline according to ASTM D5453
- In LPG and gases according to ASTM D6667

Detailed Sulfur Analysis
- In gasoline, diesel and other liquid hydrocarbon matrices
- In LPG and gases

Organic Nitrogen Analysis in LPG

Oxygenate Analysis in LPG

Detailed Hydrocarbon Analysis
- In gasoline, reformulated gasoline and other liquid hydrocarbon matrices
- Solvent purity
- In LPG and gases

GC-MS Analysis
- Solvent impurities identification
- Almost any hydrocarbon matrix
- Special samples
Regulators & Switchover Manifold Systems

Brass Regulators
- Single stage & Double stage with brass barstock body and 316L stainless steel diaphragm
- Single stage & Double stage with chrome-plated brass forged body with 316L stainless steel diaphragm
- In-line regulator with brass barstock body and 316L stainless steel diaphragm
- Lecture bottle regulators
- Regulators for one liter steel cylinders

Stainless Steel Regulators
- Single stage & Double stage with 316L stainless steel barstock body and 316L stainless steel diaphragm
- In-line regulator with stainless steel barstock body and 316L stainless steel diaphragm
- Lecture bottle regulators
- Regulators for one liter aluminum cylinders
- Vaporizing regulator, single stage stainless steel

Automatic Switchover Manifold Systems Brass and/or 316L Stainless Steel Components
- Automatic Switchover System with pressure switches and brass components with or without remote alarm
- Automatic Switchover System with pressure switches and 316L stainless steel components with or without remote alarm
- Automatic Switchover System with pressure transducers with brass and 316L stainless steel components with or without remote alarm
- Protocol Switchover Station
- Automatic Switchover System, liquid primary with high pressure reserve and brass components
- Automatic Switchover System, liquid primary with high pressure reserve and 316L stainless steel components
- Automatic Switchover System with brass components with or without tee purge valves
- Automatic Switchover System with 316L stainless steel components with or without tee purge
- Valves
Accessories
- Panel Mount Kits
- Braided Stainless Steel Pigtails
- Stainless Steel Tubing
- CGA Connections & Fittings
- Cylinder Bench Brackets and Floor Stands
- Flowmeters

Heated Products
- Cylinder Heat Blankets
- Heat Trace Tubing
- 1/8” Stainless Steel Seamless Tubing @ 8 Watts per Foot (other sizes available)
- All Kits, Thermostats, Accessories, and Instruction Manuals necessary for heat trace tubing installation

Cylinders

Aluminum, High Pressure with Tapered Threads
- AL (1 Liter Aluminum) with aluminum CGA 180 valve: 3.2" X 12", 4 lbs.
- AL 30: 7.25” X 21”, 20 lbs.
- Al 80: 7.25" X 40", 40 lbs.
- Al 150: 8" X 53", 60 lbs.

Steel, High Pressure with Tapered Threads
- Size 200: 9" X 56", 120 lbs.

Low Pressure Steel with Tapered Threads
- 1 L (1 Liter low pressure cylinder) with brass CGA 170 valve: 3" X 12", 2 lbs.
- LP 2.5: 8” X 18”, 20 lbs.
- LP 5: 12" X 18", 20 lbs.
- LP 143: 12" X 46", 50 lbs.
- LP 239: 15" X 48", 75 lbs.
Constant Pressure Cylinders
- 300 cc Constant Pressure Cylinder
- 500 cc Constant Pressure Cylinder
- 1000 cc Constant Pressure Cylinder
- Carry Case for Constant Pressure Cylinders

CGA Connections and Fittings
Safety Accessories
- Cylinder Carts
- Cylinder Brackets
- Cylinder Stands