

Laboratory	Quality Control Laboratory, GAIL (India) Limited, Post- Pata, Dist- Auraiya, Uttar Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	11.10.2015
Certificate Number	T-0747	Valid Until	10.10.2017
Last Amended on	-	Page	1 of 3

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
I.	PETROLEUM			
1.	Natural Gas (Rich / Lean)	Compositional analysis by GC		
		C ₁	ASTM D1945 - 14	65.0 Mole % to 99.8 Mole %
		C ₂		5.0 Mole % to 20.0 Mole %
		C ₃		2.0 Mole % to 10.0 Mole %
		iC ₄		0.20 Mole % to 2.0 Mole %
		nC ₄		0.20 Mole % to 2.0 Mole %
		iC ₅		0.01 Mole % to 0.50 Mole %
		nC ₅		0.01 Mole % to 0.50 Mole %
		C ₆		0.01 Mole % to 0.50 Mole %
		N ₂		0.01 Mole % to 2.0 Mole %
		CO ₂		0.005 Mole % to 10.0 Mole %
		Specific Gravity	ISO 6976: 1995	0.5500 to 0.8420
		Calorific Value	ISO 6976: 1995	(8000 Kcal to 13000 Kcal)/SM ³
2.	LPG	Density	ASTM D 2163-14e1 (GC) IP 432: 2000	0.4800 g/cc to 0.5600 g/cc
		Vapour pressure @ 40 °C	ASTM D 2163-14e1 (GC) IP 432: 2000	520 kPa to 1050 kPa, gauge

Deepak Kumar Sharma
Convenor

N. Venkateswaran
Program Manager

Laboratory	Quality Control Laboratory, GAIL (India) Limited, Post- Pata, Dist- Auraiya, Uttar Pradesh		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	11.10.2015
Certificate Number	T-0747	Valid Until	10.10.2017
Last Amended on	-	Page	2 of 3

S. No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
	LPG	Volatility	ASTM D 1837: 2011	(-)5 °C to (+) 5 °C
		Copper strip corrosion	ASTM D 1838: 14	1a to 4c
		Hydrogen sulphide	ASTM D 2420: 13	Qualitative (Visual)
		Total Volatile Sulphur	ASTM D 3246: 15	1.5 mg/kg to 300 mg/kg
		Free Water content		Qualitative (Visual)
3.	Propane	Density	ASTM D 2163-14e1 (GC) IP 432: 2000	0.4800 g/cc to 0.5600 g/cc
		Vapour pressure @ 40 °C	ASTM D 2163-14e1 (GC) IP 432: 2000/	1550 kPa, gauge (Max)
		Compositional analysis by GC		
		Propane	ASTM D 2163-14e1 (GC)	90 Mole % to 99.9 Mole %
		Ethane		0.01 Mole % to 4.0 Mole %
		Iso- Butane		0.01 Mole % to 4.0 Mole %
		n-butane		0.01 Mole % to 4.0 Mole %
		iso-Pentane		0.00 Mole % to 0.2 Mole %
		n-Pentane		0.00 Mole % to 0.2 Mole %

Deepak Kumar Sharma
Convenor

N. Venkateswaran
Program Manager

