

Laboratory **Quality Control Laboratory, IOCL, Barauni Refinery, P.O. Barauni Oil Refinery, Dist. Begusarai, Bihar**

Accreditation Standard **ISO/IEC 17025: 2005**

Certificate Number **TC-6411 (in lieu of T-0492)**

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Validity **29.07.2017 to 28.07.2019**

Last Amended on **12.10.2017**

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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CHEMICAL TESTING

I. PETROLEUM AND PRODUCTS				
1.	SRN,MS,SKO ATF, HSD, FO	Density	IS 1448 (Part 16): 2014	0.650 g/ml to 1.150 g/ml
		Distillation (IBP-FBP) Rec @ °C	IS 1448 (Part 18): 1991 (RA 2010)/	30 °C to 360 °C
		Residue	ASTM D86:2016	0 to 10 % v/v
2.	MS	RON	IS 1448 (Part 27): 2013	65 to 100
		MON	IS 1448 (Part 26): 2013	65 to 100
		Induction Period	IS 1448 (Part 47): 1962 (RA 2003)	14 Minutes to 360 Minutes
		Anti Knocking Index	IS 1448 (Part 26 & Part 27): 2013	45 to 90
3.	MS, ATF	Existing Gum	IS 1448 (Part 29): 2004 (RA 2010)	10 g/m ³ to 40 g/m ³
		Benzene	ASTM D 3606:2016	0.1 % vol. to 1.5 % vol.
4.	ATF	Aromatics	IS 1448 (Part 23): 2004 (RA 2010)	4 % vol. to 25 % vol.
5.	HSD	Cetane Index	ASTM D 4737:2016	35 to 60
		Cetane No.	IS 1448 (Part 9): 2013	35 to 58
		Kinematic viscosity@40° C	IS 1448 (Part 25):1976 (RA 2007) ASTM D 445:2014	2.0 cSt to 5.0 cSt @ 40 °C
6.	SKO, ATF, HSD	Flash Point(Abel)	IS 1448 (Part 20): 1998 (RA 2008)	10 °C to 60 °C
7.	FO	Flash Point (PMCC)	IS 1448 (Part 21): 2012	50 to 180 °C
		Water Content	IS 1448 (Part 40): 1987 (RA 2010)	0.05 v % to 10.0 v %
		Kinematic viscosity @ 50 °C		15 cSt to 400 cSt @ 50 °C
8.	HSD, FO	Pour Point	IS 1448 (Part 10): Part I 2012	- 9 °C to + 30 °C

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		Ramsbottom Carbon Residue	IS 1448 (Part 8): 1967 (RA 2003)	0.1 %wt. to 12.0 %wt.
9.	MS, HSD, SKO, ATF	Sulphur	ISO 20847:2004/ ASTM D-4294:2016	17 mg/kg to 150 mg/kg 17 mg/kg to 3000 mg/kg
10.	MS, SRN	RVP	IS 1448 (Part 39): 2012	30 kPa to 80 kPa
11.	SRN, MS, SKO, HSD	Copper Strip corrosion	IS 1448 (Part 15): 2004 (RA 2010)	1 a to 4 c rating
II.	POLLUTION AND ENVIRONMENT			
1.	Waste Water/ Effluent	pH	IS 3025 (Part 11): 1983 (RA 2006)	1.0 to 14.0
		TSS	IS 3025 (Part 17): 1984 (RA 2012)	10 mg/L to 100 mg/L
		Oil Content	IS 3025 (Part 39): 1991 (RA 2003)	1 mg/L to 200 mg/L
		BOD	IS 3025 (Part 44): 1993 (RA 2003)	2 mg/L to 500 mg/L
		COD	IS 3025 (Part 58): 2006	5 mg/L to 1500 mg/L