

Laboratory **Quality Control Laboratory, Indian Oil Corporation Ltd., Mathura Refinery, Mathura, Uttar Pradesh**

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

Certificate Number **TC-6763 (in lieu T-0115)**

Page 1 of 4

Validity **24.11.2017 to 23.11.2019**

Last Amended on **12.01.2018**

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.	POLLUTION & ENVIRONMENT			
1.	Waste Water	pH	IS 3025 (Part 11)	3 to 11
		Oil & Grease	IS 3025 (Part 39)	2 to 10 mg/l
		Phenol	IS 3025 (Part 43)	0.02 to 1 mg/l
		Biochemical Oxygen Demand	IS 3025 (Part 44)	2 to 50 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58)	10 to 200 mg/l
		Sulphide	IS 3025 (Part 29)	0.1 to 1 mg/l
		Total Suspended Solids	IS 3025 (Part 17)	10 to 50 mg/l
II.	PETROLEUM PRODUCTS			
1.	Naphtha	Reid Vapour Pressure	IS 1448 (Part 39)	20 to 100 kPa
		Copper Strip Corrosion	IS 1448 (Part 15)	1a to 4c (Qualitative)
		Distillation	IS 1448 (Part 18)	30 to 180 °C
		Density	IS 1448 (Part 16)	600 to 720 kg/m ³
2.	Motor Gasoline	Reid Vapour Pressure	IS 1448 (Part 39)	20 to 100 kPa
		RON	IS 1448 (Part 27)	70 to 100
		MON	IS 1448 (Part 26)	70 to 90
		Benzene	ASTM D 3606	0.1 to 1.5 % v
		Existent Gum	IS 1448 (Part 29)	10 to 50 g/m ³
		Hydrocarbon Type	IS 1448 (Part 23)	Aromatics (10 to 40 % v) Olefins (0.5 to 25 % v)

Pooja Singh
Convenor

N. Venkateswaran
Program Director

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Page 2 of 4

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		Distillation	IS 1448 (Part 18)	Volume 0 to 100 % Temp. 30 to 220 °C
		Copper Strip Corrosion	IS 1448 (Part 15)	1a to 4c (Qualitative)
		Sulphur	ASTM D-2622 / ISO 20884	5 to 80 mg/kg
		Sulphur	ASTM D-4294 / ISO 20847	17 to 200 mg/kg
		Density	IS 1448 (Part 16)	650 to 770 kg/m ³
3.	Kerosene	Density	IS 1448 (Part 16)	700 to 850 kg/m ³
		Distillation	IS 1448 (Part 18)	100 to 320 °C
		Saybolt Colour	ASTM D156 / ASTM D 6045	10 to 30
		Smoke Point	IS 1448 (Part 31)/ISO 3014	10 to 25 mm
		Sulphur	ASTM D-4294 / ISO 20847	200 to 3500 mg/kg
		Copper Strip Corrosion	IS 1448 (Part 15)	1a to 4c (Qualitative)
		Abel Flash Point	IS 1448 (Part 20)	20 to 55 °C
4.	HSD	Distillation	IS 1448 (Part 18)	110 to 370 °C
		Copper Strip Corrosion	IS 1448 (Part 15)	1a to 4c (Qualitative)
		Sulphur	ASTM D-2622 / ISO 20884	5 to 80 mg/kg
			ASTM D-4294 / ISO 20847	17 to 400 mg/kg
		Abel Flash Point	IS 1448 (Part 20)	20 to 55 °C
		CFPP	IS 1448 (Part 110)	(-) 12 to 18 °C
		Lubricity (HFRR)	ISO 12156-1	200 to 600 micron
		Cetane Number	IS 1448 (Part 9)	40 to 60
		Pour Point	IS 1448 (Part 10)	(-) 12 to 24 °C
		Kinematic Viscosity	IS 1448 (Part 25)	2.0 to 8 cSt @40°C
		Density	IS 1448 (Part 16)	800 to 850 kg/m ³

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Page 3 of 4

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5.	FURNACE OIL	Pour Point	IS 1448 (Part 10)	(-) 9 to 30 °C
		Kinematic Viscosity	IS 1448 (Part 25)	100 to 300 cSt @ 50 °C
		Sulphur	ASTM D-4294 /ISO 20847	0.1 to 4.5 wt%
		Density	IS 1448 (Part 16)	900 to 1000 kg/m ³
		Calorific Value	IS 1448 (Part 7)	9000 to 12000 kCal/kg
		Sediment	IS 1448 (Part 30) / ASTM D 4870	0.05 to 0.5 % wt
		Water Content	IS 1448 (Part 40) / ASTM D 95	0.1 to 2 % v
6.	LPG	Vapour Pressure	ASTM D-1267	600 to 1100 kPa
		Volatility	ASTM D-1837	(-) 4 to 4 °C
		Copper Strip Corrosion	ASTM D-1838	1a to 4c (Qualitative)
7.	ATF	Existent Gum	IS 1448 (Part 29)	2 to 5 g/100 ml
		Smoke Point	IS 1448 (Part 31) / ISO 3014	10 to 25 mm
		Hydrocarbon Type	IS 1448 (Part 23)	Aromatics (10 to 30 % v)
				Olefin (0.5 to 25%v)
		Distillation	IS 1448 (Part 18)	110 to 320 °C
		Copper Strip Corrosion	IS 1448 (Part 15)	1a to 4c (Qualitative)
		Sulphur	ASTM D-4294 /ISO 20847	0.02 to 0.4 wt%
		Density	IS 1448 (Part 16)	750 to 850 kg/m ³
		JFTOT	ISO 6249	0 to 25 mm Hg & VTR 0 to 4 (Qualitative)
		Mercaptan Sulphur	IS 1448 (Part 109)	3 to 30 mg/l
		Saybolt Colour	ASTM D 6045	10 to 30
		Naphthalene	IS 1448 (Part 118)	0.5 to 5 % v
Electrical Conductivity	ISO 6297	50 to 600 pS/m		
Lubricity	ASTM D-5001	0.60 to 0.85 mm		

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Page 4 of 4

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		MSEP	IS 1448 (Part 142)	70 to 100
		Water Reaction	IS 1448 (Part 42)	1 to 4 (Qualitative)
		Freezing Point	IS 1448 (Part 11)	(-) 60 to (-) 40 °C
			ASTM D 2386	(-) 60 to (-) 40 °C
		Abel Flash Point	IS 1448 (Part 20)	20 to 55 °C
		Kinematic Viscosity	IS 1448 (Part 25)	2.0 to 8 cSt @ (-) 20 °C

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