

<b>Laboratory</b>	<b>Indian Oil Corporation Limited, Sabarmati Laboratory, Post New Railway Colony, Sabarmati, Ahmedabad, Gujarat</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>09.02.2015</b>
<b>Certificate Number</b>	<b>T-1539</b>	<b>Valid Until</b>	<b>08.02.2017</b>
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<b>S.No.</b>	<b>Product / Material of Test</b>	<b>Specific Test Performed</b>	<b>Test Method Specification against which tests are performed</b>	<b>Range of Testing / Limits of Detection</b>
<b>I.</b>	<b>PETROLEUM</b>			
<b>1.</b>	<b>Jet A-1</b>	Acidity Total	IS 1448 (Part 113): 1983 (RA 2010)	(0 to 0.1) mg KOH/g
		Aromatics Olefins	IS 1448 (Part 23): 2004 (RA 2010)	5% to 80 % 0.3 % to 30 %
		Freezing Point	IS 1448 (Part 11): 2004 (RA 2010)	(-) 60.0 °C to 0 °C
		Mercaptain Sulphur	IP-342: 2000 (RA 2014)	0.0003 % to 0.01 % (m/m)
		Naphthalene content	ASTM:D:1840-2007 (RA 2013)	0.03 % to 4.24 % by volume
<b>2.</b>	<b>HSD, MS, SKO, JET A-1</b>	Cu Strip Corrosion test	IS 1448 (Part 15): 2004	1 to 4
<b>3.</b>	<b>MS, SKO, HSD, DHPP, Jet A-1</b>	Density by Hydrometer	IS 1448 (Part 16): 1990 (RA 2007)	0.650 gm/ml to 0.900 gm/ml
		Distillation	IS 1448 (Part 18): 1991 (RA 2010)	30 °C to 400 °C
<b>4.</b>	<b>Jet A-1, MS</b>	Existent Gum	IS 1448 (Part 29): 2004 (RA 2010)	0 to 40 mg/100ml
<b>5.</b>	<b>SKO, HSD, Jet A-1</b>	Flash Point(Abel)	IS 1448 (P;20)-1998 (RA 2008)	10 °C to 70 °C
<b>6.</b>	<b>DHPP</b>	Flash Point (PMCC)	IS 1448 (Part 21): 2012	30 °C to 120 °C
<b>7.</b>	<b>HSD, DHPP, Jet A-1</b>	Kinematic Viscosity (KV) KV@40 °C KV@37.8 °C KV@-20 °C	IS 1448 (Part 25): 1976 (RA 2007)	2.0 cSt to 20.0 cSt

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S.No.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
8.	HSD, DHPP	Pour Point	IS 1448 (Part 10): 2013	(-) 12 °C to + 21.0 °C
9.	SKO & Jet A-1	Smoke Point	IS 1448 (Part 31): 1968 (RA 2008)	15 mm to 30 mm
10.	MS, HSD, Jet A-1	Sulphur Content	ISO 20847: 2004 D 4294-2010	17 mg/kg to 3500 mg/kg
11.	MS	Research Octane Number	ASTM D 2699: 2013 b	60 to 100

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