

**Laboratory** In House Laboratory, Udupi Power Corporation Limited (Group of Adani Power Limited), Kolachuru, Yelluru Village, Pilar Post, Padubidri, Dist. Udupi, Karnataka

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

**Certificate Number** TC-5515

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**Validity** 15.02.2018 to 14.02.2020

Last Amended on --

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.	SOLID FUELS			
1.	Coal	Total moisture (TM)	IS:1350 (Part 1) ASTM: D3302/D3302M-17 ISO: 5894 <sup>th</sup>	5% to 35%
		Moisture (Air Dried Basis)	IS:1350(Part 1) (Cl.6.1) ASTM: D3173/D3173M-17a. ISO: 11722 2 <sup>nd</sup>	2% to 20%
		Ash content	IS:1350 (Part 1) (Cl.7.0) ASTM: D3174-12 ISO: 1171 4 <sup>th</sup>	1% to 35%
		Volatile matter (VM)	IS:1350 (Part 1) ASTM: D3175-17 ISO: 562 3 <sup>rd</sup>	20% to 45%
		Gross calorific value (GCV)	IS:1350 (Part 2) ASTM: D5865-13 ISO: 1928	3500 kcal/kg to 7000 kcal/kg
II.	POLLUTION & ENVIRONMENT			
1.	Effluents	pH	IS:3025 (Part 11)	2 to 12
		Conductivity	IS:3025 (Part 14)	10 micro mhos/cm to 5000 micro mhos/cm
		Total dissolved solids	IS:3025 (Part 16)	50 mg/l to 2500 mg/l
		Total Suspended Solids	IS:3025 (Part 17)	5 mg/l to 500 mg/l
		Turbidity	IS:3025 (Part 10)	0.1 NTU to 500 NTU
		Oil and Grease	IS:3025 (Part 39)	0.5 mg/l to 50 mg/l
		Iron as Fe	IS:3025 (Part 53)	0.1 mg/l to 1.0 mg/l

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Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Bio Chemical oxygen Demand (for 3 days @ 27°C.)	IS:3025 (Part 44)	2 mg/l to 50 mg/l
		Chemical oxygen demand	IS:3025 (Part 58)	10 mg/l to 150 mg/l
<b>III.</b>	<b>WATER</b>			
<b>1.</b>	<b>Sea Water, Potable Water, Industrial Water</b>	pH	IS:3025 (Part 11)	2 to 12
		Conductivity	IS:3025 (Part 14)	1 micro mhos/cm to 80000 micro mhos/cm
		Silica	IS:3025 (Part 35)	2 mg/l to 100 mg/l
		Phosphate	IS 3025 (Part-31)	0.2 mg/l to 5 mg/l
		Chloride	IS:3025 (Part 32)	4 mg/l to 40000 mg/l
		Total Suspended Solids	IS:3025 (Part 17)	5 mg/l to 2000 mg/l
		Oil and Grease	IS:3025 (Part 39)	0.5 mg/l to 50 mg/l
		Iron as Fe	IS:3025 (Part 53)	0.1 mg/l to 0.5 mg/l
		Sulphates	IS:3025 (Part 24)	10 mg/l to 10000 mg/l
		Total dissolved solids	IS:3025 (Part 16)	100 mg/l to 10000 mg/l
		Turbidity	IS:3025 (Part 10)	0.1 NTU to 4000 NTU
		Total Hardness	IS:3025 (Part 21)	1 mg/l to 14000 mg/l
		Calcium hardness	IS:3025 (Part 40)	1 mg/l to 5000 mg/l
		Magnesium Hardness	IS:3025 (Part 46)	1 mg/l to 10000 mg/l
		Total Alkalinity	IS:3025 (Part 23)	5 mg/l to 200 mg/l