

Laboratory	KKB Micro Testing Labs Pvt. Ltd., 3-5-244, 2nd Floor, Tarun Plaza, NFC Main Road, Krishna Nagar Colony, Moula Ali, Hyderabad, Telangana		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	26.10.2015
Certificate Number	T-3664	Valid Until	25.10.2017
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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
I. AIR, GASES & ATMOSPHERE				
1.	Ambient Air Monitoring	RSPM (PM ₁₀)	IS 5182 (Part 23): 2006 (RA 2012)	5 µg/m ³ to 750 µg/m ³
		PM _{2.5}	SOP 11 dated 17.11.2014	12.5 µg/m ³ to 500 µg/m ³
		Sulphur Dioxide as SO ₂	IS 5182 (Part 2): 2001 (RA 2012)	4 µg/m ³ to 500 µg/m ³
		Nitrogen Oxides as NO _x	IS 5182 (Part 6): 2006	9 µg/m ³ to 500 µg/m ³
2.	Ambient Noise Monitoring	Noise Level	IS 9989 : 1981 (RA 2008)	35 dB to 130 dB(A)
3.	Stack Emission Monitoring	Gas Quantity	IS 11255 (Part 3): 2008	100 m ³ /hr to 5000 m ³ /hr
		Stack temperature	IS 11255 (Part 3): 2008	Ambient – 500 °C
		Exit Velocity	IS 11255 (Part 3): 2008	3 m/s to 10 m/s
		Particulate Matter	IS 11255 (Part 1): 1985 (RA 2009)	10 mg/Nm ³ to 1000 mg/Nm ³
		Sulphur Dioxide as SO ₂	IS 11255 (Part 2): 1985 (RA 2009)	4 mg/Nm ³ to 1000 mg/Nm ³
		Oxides of Nitrogen (NO _x)	IS 11255 (Part 7): 2005 (RA 2012)	5 mg/Nm ³ to 400 mg/Nm ³
II. POLLUTION & ENVIRONMENT				
1.	Solid Wastes, Hazardous Solid Wastes	Copper	USEPA 3050 B: 1996 & USEPA 7000B: 2007	0.5 mg/kg to 10 mg/kg

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	Solid Wastes, Hazardous Solid Wastes	Total Chromium	USEPA 3050 B: 1996 & USEPA 7000B: 2007	0.5 mg/kg to 10 mg/kg
		Iron	USEPA 3050 B: 1996 & USEPA 7000B: 2007	0.5 mg/kg to 20 mg/kg
		Manganese	USEPA 3050 B: 1996 & USEPA 7000B: 2007	0.5 mg/kg to 50 mg/kg
		Nickel	USEPA 3050 B: 1996 & USEPA 7000B: 2007	0.5 mg/kg to 15 mg/kg
		Zinc	USEPA 3050 B: 1996 & USEPA 7000B: 2007	0.5 mg/kg to 25 mg/kg
2.	Soil	pH	SOP 19, Issue 01, Issue Date. 12.08.2015	1 to 12
		Conductivity	SOP 15, Issue 01, Issue Date. 12.08.2015	2 µS/cm to 10,000 µS/cm
		Available Nitrogen as N	SOP 13, Issue 01, Issue Date. 12.08.2015	5 kg/ha to 2500 kg/ha
		Organic Matter	SOP 18, Issue 01, Issue Date. 12.08.2015	0.03 % to 10 %
		Available Phosphorous as P	SOP 20, Issue 01, Issue Date. 12.08.2015	1.5 kg/ha to 250 kg/ha
		Available Sodium as Na	SOP 17, Issue 01, Issue Date. 12.08.2015	0.001 % to 0.1 %
		Available Potassium as K		5 kg/ha to 1000 kg/ha

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	Soil	Iron	USEPA 3050 B: 1996	0.001 % to 0.1 %
		Manganese	USEPA 3050 B: 1996	1 mg/kg to 100 mg/kg
		Zinc	USEPA 3050 B: 1996	0.1 mg/kg to 10 mg/kg
		Boron	SOP 14, Issue 01, Issue Date. 12.08.2015	0.05 mg/kg to 10 mg/kg
		Copper	USEPA 3050 B: 1996	0.02 mg/kg to 10 mg/kg
		Total Chromium as Cr	USEPA 3050 B: 1996	0.2 mg/kg to 10 mg/kg
		Lead	USEPA 3050 B: 1996	0.1 mg/kg to 10 mg/kg
		Nickel	USEPA 3050 B: 1996	0.3 mg/kg to 10 mg/kg
3.	Waste Water Liquid Effluents	pH	IS 3025 (Part 11): 1983 (RA 2012) / APHA (22 nd Edition) 4500-H ⁺ B: 2012	1 to 12
		Total dissolved Solids	IS 3025 (Part 16): 1964 (RA 2006) Amd. 1/ APHA (22 nd Edition) 2540 C: 2012	10 mg/l to 5000 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 2006) / APHA (22 nd Edition) 2540 D: 2012	1 mg/l to 1000 mg/l
		Chemical oxygen demand	IS 3025 (Part 58) : 2006 (RA 2012)/ APHA (22 nd Edition) 5220 B: 2012	4 mg/l to 10,000 mg/l

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	Waste Water Liquid Effluents	Bio Chemical Oxygen Demand (3 days at 27 ^o C and 5 days at 20 ^o C)	IS 3025 (Part 44): 1993 (RA 2009)/ APHA (22 nd Edition) 5210 B: 2012	2 mg/l to 5000 mg/l
		Hexavalent Chromium as Cr ⁺⁶	APHA (22 nd Edition) 3500 Cr B: 2012	0.03 mg/l to 20 mg/l
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2003) with Amd. 1 & 2/ APHA (22 nd Edition) 5520 B: 2012	1 mg/l to 100 mg/l
		Ammonical Nitrogen as NH ₃ N	IS 3025 (Part 34): 1988 (RA 2009)/ APHA (22 nd Edition) 4500 NH ₃ B: 2012	1 mg/l to 500 mg/l
		Total Chromium as Cr	APHA (22 nd Edition) 3111 B: 2012	0.5 mg/l to 10 mg/l
		Copper	APHA (22 nd Edition) 3111 B: 2012	0.5 mg/l to 10 mg/l
		Lead	USEPA 3050 B / APHA (22 nd Edition) 3111 B: 2012	0.5 mg/l to 10 mg/l
		Nickel	APHA (22 nd Edition) 3111 B: 2012	0.5 mg/l to 10 mg/l
		Zinc	APHA (22 nd Edition) 3111 B: 2012	0.5 mg/l to 10 mg/l
		Chlorides	IS 3025 (Part 32): 1988 (RA 2009)/ APHA (22 nd Edition) 4500 Cl ⁻ B: 2012	1 mg/l to 1000 mg/l

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	Waste Water Liquid Effluents	Sulphate	IS 3025 (Part 24): 1986 (RA 2009)/ APHA (22 nd Edition) 4500 SO ₄ ⁻² E: 2012	1 to 1000
		Cadmium	APHA (22 nd Edition) 3111 B: 2012	0.5 mg/l to 3 mg/l
		Fluoride	APHA (22 nd Edition) 4500 F ⁻ D: 2012	0.1 mg/l to 10 mg/l
		Boron	APHA (22 nd Edition) 4500 B-B: 2012	0.2 mg/l to 20 mg/l
III.	WATER			
1.	Potable and Domestic Water, Bore Water, Surface Water, Ground Water	Colour	IS 3025 (Part 4): 1983 (RA 2012) Amd. 1/ APHA (22 nd Edition) 2120 B: 2012	5 to 500 color units
		Turbidity	IS 3025 (Part 10): 1984 (RA 2012)/ APHA (22 nd Edition) 2130 B: 2012	0.1 NTU to 1000 NTU
		pH	IS 3025 (Part 11): 1983 (RA 2012)/ APHA (22 nd Edition) 4500H ⁺ B: 2012	1 to 12
		Electrical Conductivity	IS 3025 (Part 14): 1984 (RA 2012)/ APHA (22 nd Edition) 2510 B: 2012	2 µS to 10000 µS/cm
		Total dissolved Solids	IS 3025 (Part 16): 1964 (RA 2006) Amd. 1/ APHA (22 nd Edition) 2540 C: 2012	1 mg/l to 3000 mg/l

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	Potable and Domestic Water, Bore Water, Surface Water, Ground Water	Total hardness as CaCO ₃	IS 3025 (Part 21): 2009 / APHA (22 nd Edition) 2340 C: 2012	1 mg/l to 1000 mg/l
		Total Alkalinity	IS 3025 (Part 23): 1986 (RA 2009) Amd. 1 & 2 / APHA (22 nd Edition) 2320 B: 2012	5 mg/l to 1000 mg/l
		Non carbonate hardness as CaCO ₃	IS 3025 (Part 21): 2009	0.02 mg/l to 500 mg/l
		Calcium	IS 3025 (Part 40): 1991 (RA 2009) Amd. 1 / APHA (22 nd Edition) 3500 Ca B: 2012	1 mg/l to 500 mg/l
		Magnesium	IS 3025 (Part 46): 1994 (RA 2009) Amd. 1 & 2 / APHA (22 nd Edition) 3500 Mg B: 2012	1 mg/l to 250 mg/l
		Sodium	IS 3025 (Part 45): 1993 (RA 2009) Amd. 1 / APHA (22 nd Edition) 3500 Na B: 2012	2 mg/l to 100 mg/l
		Potassium	IS 3025 (Part 45): 1993 (RA 2009) Amd. 1 / APHA (22 nd Edition) 3500 K B: 2012	1 mg/l to 500 mg/l
		Chlorides	IS 3025 (Part 32): 1988 (RA 2009) / APHA (22 nd Edition) 4500 Cl ⁻ B: 2012	1 mg/l to 1000 mg/l
		Sulphate	IS 3025 (Part 24): 1986 (RA 2009) / APHA (22 nd Edition) 4500 SO ₄ ⁻² E: 2012	1 mg/l to 100 mg/l

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	Potable and Domestic Water, Bore Water, Surface Water, Ground Water	Silica as SiO ₂	IS 3025 (Part 35): 1988 (RA 2009)/ APHA (22 nd Edition) 4500 SiO ₂ C: 2012	1 mg/l to 100 mg/l
		Iron	IS 3025 (Part 53): 2003 (RA 2009)/ APHA (22 nd Edition) 3500 Fe B: 2012	0.1 mg/l to 10 mg/l
		Nitrates	APHA (22 nd Edition) 4500 NO ₃ ⁻ B: 2012	0.1 mg/l to 100 mg/l
		Fluoride	APHA (22 nd Edition) 4500 F ⁻ D: 2012	0.1 mg/l to 10 mg/l
		Dissolved Oxygen	IS 3025 (Part 38): 1989 / APHA (22 nd Edition) 4500-O ⁻ C: 2012	0.5 mg/l to 10 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006 (RA 2012)/ APHA (22 nd Edition) 5220 B: 2012	4 mg/l to 4000 mg/l
		Biochemical Oxygen Demand (3 days at 27 ⁰ C and 5 days at 20 ⁰ C)	IS 3025 (Part 44): 1993 / APHA (22 nd Edition): 2012	2 mg/l to 1000 mg/l

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