

Laboratory	IVC Labs Private Limited, IVC House, 1048, Burma Colony, 2nd Street, Perungudi, Chennai, Tamil Nadu		
Accreditation Standard	ISO/IEC 17025: 2005		
Discipline	Chemical Testing	Issue Date	29.11.2015
Certificate Number	T-2731	Valid Until	28.11.2017
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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	Suspended Particulate Matter	IS 5182 (Part 4): 1999 (RA 2010)	10 µg/m ³ to 1000 µg/m ³
		Particulate Matter (Less than 10µg) or PM ₁₀	IS 5182 (Part 23): 2006 (RA 2012)	10 µg/m ³ to 1000 µg/m ³
		Particulate Matter (Less than 2.5µg) or PM _{2.5}	In house validated Method IVC/ SOP/21 (Issue Date: 04.06.2014)	10 µg/m ³ to 1000 µg/m ³
		Sulphur Dioxide (SO ₂)	IS 5182 (Part 2): 2001 (RA 2012)	5 µg/m ³ to 1000 µg/m ³
		Oxides of Nitrogen (NO _x)	IS 5182 (Part 6): 2006 (RA 2012)	9 µg/m ³ to 750 µg/m ³
2.	Stack Emissions Monitoring	Particulate Matter	IS 11255 (Part 1): 1985 (RA 1998)	1 mg/Nm ³ to 1000 mg/Nm ³
		Sulphur Dioxide (SO ₂)	IS 11255 (Part 2): 1985 (RA 2003)	1 mg/Nm ³ to 1000 mg/Nm ³
		Oxides of Nitrogen (NO _x)	IS 11255 (Part 7): 2005	1 mg/Nm ³ to 1000 mg/Nm ³
		Flue gas Velocity	IS 11255 (Part 3): 2008	3 m/s to 60 m/s
		Flow Rate	IS 11255 (Part 3): 2008	Min 10 Nm ³ /hr
		Temperature	IS 11255 (Part 3): 2008	Ambient 600 °C
3.	Noise Level Monitoring	Sound Level	IS 9989 (Part 1): 1985 (RA 2008)	40 dB to 110 dB(A)

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II. POLLUTION & ENVIRONMENT				
1.	Waste Water, Effluents	Color	IS 3025 (Part 4): 1983 (RA 2002) APHA (22 nd Edition) 2120 B: 2012	5 Hazen to 100 Hazen Units
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) APHA (22 nd Edition) 2540 C: 2012	5 mg/l to 20,000 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 2002) APHA (22 nd Edition) 2540 D: 2012	5 mg/l to 1000 mg/l
		Temperature	APHA (22 nd Edition) 2550 B: 2012	1 °C to 100 °C
		Hexavalent Chromium as Cr ⁶⁺	IS 3025 (Part 52): 2003	0.01 mg/l to 2 mg/l
		Residual free chlorine	IS 3025 (Part 26): 1986 (RA 2003) APHA (22 nd Edition) 4500 Cl B: 2012	0.1 mg/l to 5 mg/l
		Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2003) APHA (22 nd Edition) 4500-Cl B: 2012	2 mg/l to 2000 mg/l
		Fluoride as F	IS 3025 (Part 60): 2008 APHA (22 nd Edition) 4500-F D: 2012	0.1 mg/l to 5 mg/l
		pH	IS 3025 (Part 11): 1983 (RA 2002) APHA (22 nd Edition) 4500-H ⁺ B: 2012	1 to 14
		Ammonical Nitrogen as N	IS 3025 (Part 34): 1988 (RA 2003) APHA (22 nd Edition) 4500-NH ₃ C: 2012	1 mg/l to 100 mg/l

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	Waste Water, Effluents	Total Kjeldahl Nitrogen as N	IS 3025 (Part 34): 1988 (RA 2003) APHA (22 nd Edition) 4500N _{org} B: 2012	1 mg/l to 500 mg/l
		Free Ammonia as NH ₃	APHA (22 nd Edition) 4500 NH ₃ : 2012 IS 3025 (Part 34): 1988 (RA 2003)	0.1 mg/l to 25 mg/l
		Phosphorous as P	IS 3025 (Part 31): 1988 (RA 1999) APHA (22 nd Edition) 4500-P D: 2012	0.1 mg/l to 100 mg/l
		Sulphide as H ₂ S	IS 3025 (Part 29): 1986 (RA 2003) APHA (22 nd Edition) 4500-S ₂ -F: 2012	0.1 mg/l to 50 mg/l
		Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 2003) APHA (22 nd Edition) 4500-SO ₄ : 2012	1 mg/l to 1000 mg/l
		Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 (RA 2003) APHA (22 nd Edition) 5210 B: 2012	4 mg/l to 10,000 mg/l
		Chemical Oxygen Demand (COD)	IS 3025 (Part 58): 2006 APHA (22 nd Edition) 5220 B: 2012	5 mg/l to 20,000 mg/l
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2003) APHA (22 nd Edition) 5520 C: 2012	2 mg/l to 1000 mg/l
		Potassium as K	IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 400 mg/l
		Sodium as Na	IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 400 mg/l

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2.	Solid Waste & Sludge	pH	IS 2720 (Part 26): 1987 (RA 2011)	1 to 14
		Conductivity	IS 14767: 2000 (RA 2010)	10 µS/cm to 10000 µS/cm
		Moisture	IS 2720 (Part 2): 1973 (RA 2010)	2 % to 75 %
		Volatile substance 600 °C	IS 10158: 1982 (RA 2009)	0.5 % to 95 %
		Non Volatile substance	IS 1015: 1982 (RA 2009)	0.5 % to 95 %
		Sodium as Na	EPA 7000B: 2007	2 mg/kg to 1000 mg/kg
		Potassium as K	IS 10158: 1982 (RA 2009)	2 mg/kg to 1000 mg/kg
		Calcium as Ca	EPA 7000 B: 2007	2 mg/kg to 1000 mg/kg
		Magnesium as Mg	EPA 7000 B: 2007	1 mg/kg to 1000 mg/kg
		Total Nitrogen as N	IS 10158: 1982 (RA 2009)	5 mg/kg to 1000 mg/kg
		Phosphorous as P	IS 10158: 1982 (RA 2009)	0.5 mg/kg to 1000 mg/kg
		Soluble Sulphate as SO ₄	IS 2720 (Part 27): 1977 (RA 2006)	1 mg/kg to 10000 mg/kg
		Oil & Grease	USEPA 9071B: 1998	2 mg/kg to 1000 mg/kg
		Total chromium	EPA 7000 B: 2007	0.1 mg/kg to 1000 mg/kg
		Total Organic Carbon	IS 2720 (Part 22): 1972 (RA 2010)	1 mg/kg to 1000 mg/kg
		Total Organic Matter	IS 2720 (Part 22): 1972 (RA 2010)	2 mg/kg to 1000 mg/kg

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III.	SOIL			
1.	Soil	pH	IS 2720 (Part 26): 1987 (RA 2011)	1 to 14
		Conductivity	IS 14767: 2000 (RA 2010)	10 µS/cm to 10,000 µS/cm
		Moisture	IS 2720 (Part 2): 1973 (RA 2010)	2 % to 75 %
		Total Nitrogen as N	IS 10158: 1982 (RA 2009)	5 mg/kg to 1000 mg/kg
		Phosphorous as P	IS 10158: 1982 (RA 2009)	0.5 mg/kg to 1000 mg/kg
		Calcium as Ca	EPA 7000 B: 2007	2 mg/kg to 1000 mg/kg
		Magnesium as Mg	EPA 7000 B: 2007	1 mg/kg to 1000 mg/kg
		Total Chromium	EPA 7000 B: 2007	0.1 mg/kg to 1000 mg/kg
		Sodium as Na	EPA 7000 B: 2007	2 mg/kg to 1000 mg/kg
		Potassium as K	IS 10158: 1982 (RA 2009)	2 mg/kg to 1000 mg/kg
		Total Organic Carbon	IS 2720 (Part 22): 1972 (RA 2010)	1 mg/kg to 1000 mg/kg
		Total Organic Matter	IS 2720 (Part 22): 1972 (RA 2010)	2 mg/kg to 1000 mg/kg

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IV.	WATER			
1.	Water (Ground Water, Drinking Water, Bore Well)	Color	IS 3025 (Part 4): 1983 (RA 2002) APHA (22 nd Edition) 2120 B: 2012	5 Hazen to 100 Hazen Units
		Odour	IS 3025 (Part 5): 1983 (RA 2002)	Qualitative (Agreeable/Disagreeable)
		Turbidity	IS 3025 (Part 10): 1984 (RA 2002) APHA (22 nd Edition) 2130 B: 2012	0.5 NTU to 400 NTU
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006) APHA (22 nd Edition) 2540 C: 2012	1 mg/l to 20,000 mg/l
		pH	IS 3025 (Part 11): 1983 (RA 2002) APHA (22 nd Edition) 4500-H ⁺ B: 2012	1 to 14
		Electrical Conductivity @ 25 °C	IS 3025 (Part 14): 1984 (RA 2002) APHA (22 nd Edition) 2510 B: 2012	2 µS/cm to 20,000 µS/cm
		Iron as Fe	IS 3025 (Part 53): 2003 APHA (22 nd Edition) 3111 B: 2012, APHA (22 nd Edition) 3500-Fe B: 2012	0.05 mg/l to 10 mg/l
		Nitrate as NO ₃	IS 3025 (Part 34): 1988 (RA 2003) APHA (22 nd Edition) 4500-NO ₃ B: 2012	1 mg/l to 50 mg/l
		Nitrite as NO ₂	IS 3025 (Part 34): 1988 (RA 2003)	0.01 mg/l to 10 mg/l
		Fluoride as F	IS 3025 (Part 60): 2008 APHA (22 nd Edition) 4500-F D: 2012	0.1 mg/l to 5 mg/l

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	Water (Ground Water, Drinking Water, Bore Well)	Chloride as Cl	IS 3025 (Part 32): 1988 (RA 2003) APHA (22 nd Edition) 4500-Cl B: 2012	2 mg/l to 2000 mg/l
		Sulphate as SO ₄	IS 3025 (Part 24): 1986 (RA 2003) APHA (22 nd Edition) 4500-SO ₄ : 2012	1 mg/l to 1000 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003) APHA (22 nd Edition) 2320 B: 2012	1 mg/l to 1000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 APHA (22 nd Edition) 2340 C: 2012	1 mg/l to 8000 mg/l
		Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2003) APHA (22 nd Edition) 3500-Ca B: 2012	1 mg/l to 1000 mg/l
		Magnesium as Mg	IS 3025 (Part 46): 1994 (RA 2003) APHA (22 nd Edition) 3500-Mg B: 2012	1 mg/l to 400 mg/l
		Sodium as Na	IS 3025 (Part 45): 1993 (RA 2003) APHA (22 nd Edition) 3500-Na B: 2012	1 mg/l to 400 mg/l
		Residual free chlorine	IS 3025 (Part 26): 1986 (RA 2003) APHA (22 nd Edition) 4500-Cl B: 2012	0.1 mg/l to 10 mg/l
		Silica as SiO ₂	IS 3025 (Part 35): 1988 (RA 2003)	0.1 mg/l to 100 mg/l
		Potassium as K	IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 400 mg/l

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