

Laboratory ABC Techno Labs India Private Limited, ABC Tower, No:400, 13th Street, SIDCO Industrial Estate, North Phase, Ambattur, Chennai, Tamil Nadu

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-5770 (in lieu of T-1586 & T-4194)

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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
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BIOLOGICAL TESTING

I.	WATER			
1.	Drinking Water	Standard Plate Count	IS 1622: 1981 (RA 2014)	≥ 1cfu/ml
		Heterotrophic plate count/ Total plate count	APHA (22 nd Edition) 9215 B: 2012,	≥ 1cfu/ml
		Total Coliforms	IS 15185: 2002 (RA 2007) IS 1622: 1981 (RA 2014) APHA (22 nd Edition) 9221 B: 2012,	Qualitative (Present/Absent)/100 ml (< 2 MPN to 1600 MPN) /100 ml (< 1.8 MPN to 1600 MPN)/100 ml
		Faecal Coliforms	IS 1622: 1981 (RA 2014) APHA (22 nd Edition) 9221 E: 2012,	(< 2 MPN to 1600 MPN) /100 ml (< 1.8 MPN to 1600 MPN)/100 ml
		E.coli	IS 15185: 2002 (RA 2007) IS 1622: 1981 (RA 2014) APHA (22 nd Edition) 9221 F: 2012,	Qualitative (Present/Absent)/100 ml (< 2 MPN to 1600 MPN) /100 ml (< 1.8 MPN to 1600 MPN)/100 ml
2.	Water for Swimming Pool	Standard Plate Count	IS 3328: 1993 (RA 2003)	≥ 1cfu/ml
		Heterotrophic plate count/ Total plate count	APHA (22 nd Edition) 9215 B: 2012,	≥ 1cfu/ml
		Total Coliforms	IS 1622: 1981 (RA 2014)	(< 2 MPN to 1600 MPN) /100 ml

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			APHA (22 nd Edition) 9221-B: 2012,	(< 1.8 MPN to 1600 MPN) /100 ml
3.	Ground Water / Surface Water	Standard Plate Count	IS 1622: 1981 (RA 2014)	≥ 1cfu/ml
		Heterotrophic plate count/ Total plate count	APHA (22 nd Edition) 9215 B: 2012,	≥ 1cfu/ml
		Total Coliforms	IS 15185: 2002 (RA 2007)	Qualitative (Present/Absent)/100 ml
			IS 1622: 1981 (RA 2014)	(< 2 MPN to 1600 MPN) /100 ml
			APHA (22 nd Edition) 9221 B : 2012,	(< 1.8 MPN to 1600 MPN)/100 ml
		Faecal Coliforms	IS 1622: 1981 (RA 2014)	(< 2 MPN to 1600 MPN) /100 ml
			APHA (22 nd Edition) 9221 E: 2012,	(< 1.8 MPN to 1600 MPN)/100 ml
		E.coli	IS 15185: 2002 (RA 2007)	Qualitative (Present/Absent)/100 ml
			IS 1622: 1981 (RA 2014)	(< 2 MPN to 1600 MPN) /100 ml
			APHA (22 nd Edition) 9221 F: 2012	(< 1.8 MPN to 1600 MPN)/100 ml
4.	Packaged Drinking Water	Total viable colony count @ 37°C for 24 hrs.	IS 5402: 2012	≥ 1cfu/ml
		Coliforms	IS 15185: 2002 (RA 2007)	Qualitative (Present/Absent)/250 ml
		E.coli	IS 15185: 2002 (RA 2007)	Qualitative (Present/Absent)/250 ml
		Yeast and Mould	IS 5403: 1999 (RA 2005)	Qualitative (Present/Absent)/250 ml

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II.	ENVIRONMENT AND POLLUTION			
1.	Effluents / Waste Water	Heterotrophic plate count/ Total plate count	APHA (22 nd Edition) 9215 B: 2012	≥ 1cfu/ml
		Total Coliforms	APHA (22 nd Edition) 9221-B: 2012	(< 1.8 MPN to 1600 MPN)/100 ml
		Faecal Coliforms	APHA (22 nd Edition) 9221-E: 2012	(< 1.8 MPN to 1600 MPN)/100 ml
		E.coli	APHA (22 nd Edition) 9221-F: 2012	(< 1.8 MPN to 1600 MPN)/100 ml
2.	Surface Swab	Total Plate Count	Compendium of methods for the microbiological examination of foods APHA (5 th Edition): 2015, Chapter –Swab method	≥10 cfu /Swab/cm ²
		Yeast & Moulds	Compendium of methods for the microbiological examination of foods APHA (5 th Edition): 2015, Chapter –Swab method	≥10 cfu /Swab/ cm ²
		Coliforms	Compendium of methods for the microbiological examination of foods APHA (5 th Edition): 2015, Chapter –Swab method	≥10 cfu /Swab/ cm ²

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CHEMICAL TESTING

I.	WATER			
1.	Raw Effluent / Treated Effluent Water	Appearance	APHA (22 nd Edition) 2110: 2012	NA
		Temperature	APHA (22 nd Edition) 2550B: 2012	2° C to 45° C
		Colour	APHA (22 nd Edition) 2120 C, 2120 D: 2012	5 to 10
		Odour	APHA (22 nd Edition) 2150 B: 2012	Qualitative (Observed / Not Observed)
		pH at 25°C	IS 3025 (Part 11): 1983 (RA 2002) Electrometric Method	1 Unit to 14 Unit
		Conductivity @ 25°C	IS 3025 (Part 14): 1984 (RA 2002)	1 µmhos/cm to 20000 µmhos/cm
		Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2002)	0.5 NTU to 200 NTU
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2003)	1 mg/l to 10000 mg/l
		Total Solids	IS 3025 (Part 15): 1984 (RA 2003)	1 mg/l to 10000 mg/l
		Organic solids (Volatile)	APHA (22 nd Edition) 2540 B&E: 2012	1 mg/l to 2000 mg/l
	Inorganic solids (Fixed)	APHA (22 nd Edition) 2540 B&E: 2012	1 mg/l to 10000 mg/l	
	Total Suspended Solids	IS 3025 (Part 17): 1984	1 mg/l to 3000 mg/l	

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			(RA 2002)	
		Mixed Liquor Suspended Solids	APHA (22 nd Edition) 2540 F: 2012	1 mg/l to 10000 mg/l
		Mixed Liquor Volatile Solids	APHA (22 nd Edition) 2540 E: 2012	1 mg/l to 100 mg/l 100mg/l to 1000 mg/l
		Mixed Liquor Fixed Solids	APHA (22 nd Edition) 2540 E: 2012	1 mg/l to 100 mg/l 100 mg/l to 10000 mg/l
		Settleable Solids	APHA (22 nd Edition) 2540 F: 2012	1 ml/l to 10 ml/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 EDTA Titrimetric Method	1 mg/l to 2000 mg/l
		Calcium Hardness as CaCO ₃	IS 3025 (Part 40): 1991 (RA 2003) EDTA Titrimetric Method	1 mg/l to 2000 mg/l
		Magnesium Hardness as CaCO ₃	APHA (22 nd Edition) 3500-Mg B: 2012 (By Calculation)	1 mg/l to 2000 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32): 1988 (RA 2003) Argentometric Method	1 mg/l to 5000 mg/l
		Sulphate as SO ₄ ²⁻	APHA (22 nd Edition) 4500-SO ₄ ²⁻ E: 2012 IS 3025 (Part 24): 1986 (RA 2009)	1 mg./l to 5000 mg/l
		Sodium as Na ⁺	IS 3025 (Part 45): 1993 (RA 2003) Flame Photometry Method	1 mg/l to 5000 mg/l
		Potassium as K ⁺	IS 3025 (Part 45): 1993 (RA 2003) Flame Photometry Method	1 mg/l to 5000 mg/l

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		Nitrate as NO ₃ ⁻	APHA (22 nd Edition) 4500-NO ₃ ⁻ -B: 2012	0.1 mg/l to 100 mg/l
		Phosphate as PO ₄ ³⁻	IS 3025 (Part 31): 1988 (RA 2002) Stannous Chloride Method	0.01 mg/l to 100 mg/l
		Bio Chemical Oxygen Demand @27° C, 3 Days	IS 3025 (Part 44): 1993 (RA 2003)	2 mg/l to 2000 mg/l
		Chemical Oxygen Demand	IS 3025 (Part 58): 2006	4mg/l to 10000 mg/l
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2003) Partition Gravimetric Method	4 mg/l to 1000 mg/l
		Ammonical Nitrogen as N	APHA (22 nd Edition) 4500 N-NH ₃ -B&C: 2012	0.05 mg/l to 500 mg/l
		Total Kjeldahl Nitrogen	APHA (22 nd Edition) 4500-Norg B: 2012	1 mg/l to 500 mg/l
		Sulphide as S ²⁻	APHA (22 nd Edition) 4500-S ²⁻ -F: 2012	0.5 mg/l to 100 mg/l
		Residual Chlorine as Cl ₂	APHA (22 nd Edition) 4500-Cl-B: 2012	1 mg/l to 100 mg/l
		Fluoride as F ⁻	APHA (22 nd Edition) 4500 F-B&D: 2012	0.1 mg/l to 100 mg/l
		Total Silica as SiO ₂	APHA (22 nd Edition) 4500-SiO ₂ D: 2012 APHA (22 nd Edition) 3111D IS 3025 (Part 35): 1988	0.02 mg/l to 100 mg/l
		Sulphite as SO ₃ ²⁻	APHA (22 nd Edition) 4500 SO ₃ ²⁻ -B: 2012	1 mg/l to 100 mg/l

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		Phenolic Compound as Phenol	APHA (22 nd Edition) 5530 C: 2012	0.001 mg/l to 0.250 mg/l
		Cyanide as CN	APHA (22 nd Edition) 4500 CN C & E: 2012	0.02 mg/l to 0.2 mg/l
		Lead as Pb	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 47): 1994 (RA 2003)	0.01 mg/l to 50 mg/l
		Boron as B	APHA (22 nd Edition) 4500-B-C: 2012	0.1 mg/l to 10 mg/l
		Copper as Cu	APHA (22 nd Edition) 3500 Cu-C: 2012 IS 3025 (Part 42): 1992 APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 50 mg/l
		Cadmium as Cd	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 41): 1992 (RA 2003)	0.01 mg/l to 50 mg/l
		Total Chromium as Cr	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 52): 2003	0.01 mg/l to 50 mg/l
		Nickel as Ni	APHA (22 nd Edition) 3111B: 2012	0.01 mg/l to 50 mg/l

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			APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 54): 2003	
		Arsenic as As	APHA (22 nd Edition) 3114B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 37): 1988 (RA 2003)	0.01 mg/l to 50 mg/l
		Mercury as Hg	APHA (22 nd Edition) 3112B: 2012 IS 3025 (Part 48): 1984 (RA 2003)	0.001 mg/l to 0.5 mg/l
		Barium as Ba	APHA (22 nd Edition) 3112D: 2012	0.05 mg/l to 10 mg/l
		Total Iron as Fe	IS 3025 (Part 53): 1993 (RA 2003) APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.05 mg/l to 5 mg/l
		Antimony as Sb	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.05 mg/l to 5 mg/l
		Selenium as Se	APHA (22 nd Edition) 3114B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 56): 2003	0.01 mg/l to 50 mg/l
		Silver as Ag	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.02 mg/l to 2 mg/l

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		Molybdenum as Mo	APHA (22 nd Edition) 3112D: 2012	0.05 mg/l to 10 mg/l
		Vanadium as V	APHA (22 nd Edition) 3112D: 2012	0.05 mg/l to 10 mg/l
		Titanium as Ti	APHA (22 nd Edition) 3112D: 2012	0.05 mg/l to 10 mg/l
		Aluminum as Al	APHA (22 nd Edition) 3500-Al-B: 2012, IS 3025 (Part 55): 2003 APHA (22 nd Edition) 3112D: 2012	0.1 mg/l to 10 mg/l
		Cobalt as Co	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 50 mg/l
		Zinc as Zn	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 APHA (22 nd Edition) 3500-Zn B: 2012,	0.01 mg/l to 50 mg/l
		Tin as Sn	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 10 mg/l
		Manganese as Mn	APHA (22 nd Edition) 3500-Mn B: 2012 APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 100 mg/l
		Chromium Hexavalent as Cr ⁶⁺	APHA (22 nd Edition) 3500-Cr B: 2012	0.03 mg/l to 100 mg/l
		Calcium as Ca	IS 3025 (Part 40): 1991	1 mg/l to 1000 mg/l

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			(RA 2003) EDTA Titrimetric Method APHA (22 nd Edition) 3111B: 2012	
		Magnesium as Mg	APHA (22 nd Edition) 3500-Mg B: 2012 (By Calculation) APHA (22 nd Edition) 3111B: 2012	1 mg/l to 1000 mg/l
		Sludge volume index (SVI)	APHA (22 nd Edition) 2710 D: 2012	0.1 mg/l to 50 mg/l
		Residual Sodium Carbonate	IS 11624: 1986 (RA 2001)	0.1 mg/l to 10 mg/l
2.	Construction Water	pH at 25°C	IS 3025 (Part 11): 1983 (RA 2002) Electrometric Method	1 Unit to 14 Unit
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l
		Acidity as CaCO ₃	APHA (22 nd Edition) 2310 -B: 2012	1 mg/l to 100 mg/l
		Organic solids	APHA (22 nd Edition) 2540 B&E : 2012	1 mg/l to 1000 mg/l
		Inorganic solids	APHA (22 nd Edition) 2540 B&E : 2012	1 mg/l to 10000 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 2002)	1 mg/l to 10000 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32): 1988 (RA 2003) Argentometric Method	1 mg/l to 5000 mg/l
		Sulphate as SO ₄ ²⁻	APHA (22 nd Edition) 4500-SO ₄ ²⁻ E: 2012 IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 5000 mg/l

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3.	Surface Water	Appearance	APHA (22 nd Edition) 2110: 2012	NA
		Temperature	APHA (22 nd Edition) 2550B: 2012	2 ^o to 45 ^o C
		Colour	APHA (22 nd Edition) 2120 C, 2120 D: 2012	5 to 10
		Odour	APHA (22 nd Edition) 2150 B: 2012	Agreeable/Disagreeable
		pH at 25°C	IS 3025 (Part 11): 1983 (RA 2002) Electrometric Method	1 Unit to 14 Unit
		Conductivity @ 25°C	IS 3025 (Part 14): 1984 (RA 2002)	1.0 µmhos/cm to 20000 µmhos/cm
		Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2002)	0.5 NTU to 200 NTU
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2003)	1 mg/l to 10000 mg/l
		Total Solids	IS 3025 (Part 15): 1984 (RA 2003)	1 mg/l to 10000 mg/l
		Organic solids (Volatile)	APHA (22 nd Edition) 2540 B&E : 2012	1 mg/l to 500 mg/l
		Inorganic solids (Fixed)	APHA (22 nd Edition) 2540 B&E: 2012	1 mg/l to 10000 mg/l
		Total Suspended Solids	IS 3025 (Part 17): 1984 (RA 2002)	1 mg/l to 2000 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 EDTA Titrimetric Method	1 mg/l to 2000 mg/l
		P- Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l
		M. Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l

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		Calcium Hardness as CaCO ₃	IS 3025 (Part 40): 1991 (RA 2003) EDTA Titrimetric Method	1 mg/l to 2000 mg/l
		Magnesium Hardness as CaCO ₃	APHA (22 nd Edition) 3500-Mg B: 2012 (by calculation)	1 mg/l to 2000 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32): 1988 (RA 2003) Argentometric Method	1 mg/l to 5000 mg/l
		Sulphate as SO ₄ ²⁻	APHA (22 nd Edition) 4500-SO ₄ ²⁻ E: 2012 IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 5000 mg/l
		Sodium as Na ⁺	Flame Photometry Method IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 5000 mg/l
		Potassium as K ⁺	IS 3025 (Part 45): 1993 (RA 2003) Flame Photometry Method	1 mg/l to 5000 mg/l
		Nitrate as NO ₃ ⁻	APHA (22 nd Edition) 4500-NO ₃ ⁻ B: 2012	0.1 mg/l to 100 mg/l
		Phosphate as PO ₄ ³⁻	IS 3025 (Part 31): 1988 (RA 2002) Stannous Chloride Method	0.01 mg/l to 100 mg/l
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2003) Azide Modification Method	0.2 mg/l to 8.0 mg/l
		Bio Chemical Oxygen Demand @27° C, 3 Days	IS 3025 (Part 44): 1993 (RA 2003)	2 mg/l to 200 mg/l

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		Chemical Oxygen Demand	IS 3025 (Part 58): 2006	4 mg/l to 10000 mg/l
		Oil and Grease	IS 3025 (Part 39): 1991 (RA 2003) Partition Gravimetric Method	4 mg/l to 1000 mg/l
		Ammonical Nitrogen as N	APHA (22 nd Edition) 4500 N-NH ₃ -B&C: 2012	0.05 mg/l to 500 mg/l
		Nitrite as NO ₂ -N	APHA (22 nd Edition) 4500-NO ₂ -B: 2012	0.01 mg/l to 10 mg/l
		Total Kjeldahl Nitrogen	APHA (22 nd Edition) 4500-Norg B: 2012	1 mg/l to 5000 mg/l
		Sulphide as S ²⁻	APHA (22 nd Edition) 4500-S ²⁻ -F: 2012	0.5 mg/l to 100 mg/l
		Residual Chlorine as Cl ₂	APHA (22 nd Edition) 4500-Cl-B: 2012	1 mg/l to 100 mg/l
		Fluoride as F ⁻	APHA (22 nd Edition) 4500 F-B&D: 2012	0.1 mg/l to 100 mg/l
		Free Carbon di oxide	APHA (22 nd Edition) 4500-CO ₂ C: 2012	1 mg/l to 500 mg/l
		Carbonates & Bicarbonates	IS 3025 (Part 51): 2001 (By calculation)	1 mg/l to 1000 mg/l
		Phenolic Compound as Phenol	APHA (22 nd Edition) 5530 C: 2012	0.001 mg/l to 0.25 mg/l
		Cyanide as CN	APHA (22 nd Edition) 4500 CN C & E: 2012	0.02 mg/l to 0.2 mg/l
		Anionic Surface active agent as MBAS	APHA (22 nd Edition) 5540 C: 2012	0.05 mg/l to 2.0 mg/l
		Lead as Pb	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 50 mg/l

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			IS 3025 (Part 47): 1994 (RA 2003)	
		Boron as B	APHA (22 nd Edition) 4500-B-C: 2012	0.1 mg/l to 10 mg/l
		Copper as Cu	APHA (22 nd Edition) 3500 Cu-C: 2012 IS 3025 (Part 42): 1992 APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 50 mg/l
		Cadmium as Cd	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 41): 1992 (RA 2003)	0.01 mg/l to 50 mg/l
		Total Chromium as Cr	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 52): 2003	0.01 mg/l to 50 mg/l
		Nickel as Ni	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 54): 2003	0.01 mg/l to 50 mg/l
		Arsenic as As	APHA (22 nd Edition) 3114B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 50 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
		Mercury as Hg	IS 3025 (Part 37): 1988 (RA 2003) APHA (22 nd Edition) 3112B: 2012 IS 3025 (Part 48): 1984 (RA 2003)	0.001 mg/l to 0.5 mg/l
		Barium as Ba	APHA (22 nd Edition) 3112D: 2012	0.05 mg/l to 10 mg/l
		Silica as SiO ₂	APHA (22 nd Edition) 4500-SiO ₂ D: 2012 APHA (22 nd Edition) 3112D: 2012 IS 3025 (Part 35): 1988	0.02 mg/l to 150 mg/l
		Total Iron as Fe	IS 3025 (Part 53): 1993 (RA 2003) / APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.05 mg/l to 5 mg/l
		Antimony as Sb	APHA (22 nd Edition) 3111B: 2012 / APHA (22 nd Edition) 3113B: 2012	0.05 mg/l to 5 mg/l
		Selenium as Se	APHA (22 nd Edition) 3114B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 56): 2003	0.01 mg/l to 50 mg/l
		Aluminum as Al	APHA (22 nd Edition) 3500-Al-B: 2012, IS 3025 (Part 55): 2003 APHA (22 nd Edition) 3112D: 2012	0.1 mg/l to 10 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
		Silver as Ag	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.02 mg/l to 2 mg/l
		Zinc as Zn	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 APHA (22 nd Edition) 3500-Zn B: 2012	0.01 mg/l to 50 mg/l
		Manganese as Mn	APHA (22 nd Edition) 3500-Mn B: 2012 APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 100 mg/l
		Chromium Hexavalent as Cr ⁶⁺	APHA (22 nd Edition) 3500-Cr B: 2012	0.03 mg/l to 100 mg/l
		Calcium as Ca	IS 3025 (Part 40): 1991 (RA 2003) EDTA Titrimetric Method APHA (22 nd Edition) 3111B: 2012	1 mg/l to 1000 mg/l
		Magnesium as Mg	APHA (22 nd Edition) 3500-Mg B: 2012 (By Calculation) APHA (22 nd Edition) 3111B: 2012	1 mg/l to 1000 mg/l
		Residual Sodium Carbonate	IS 11624: 1986 (RA 2001)	0.1 mg/l to 10 mg/l
4.	Water for Irrigation	P- Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l
		M. Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l

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		Boron as B	APHA (22 nd Edition) 4500-B-C: 2012	0.1 mg/l to 10 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32): 1988 (RA 2003) Argentometric Method	1 mg/l to 5000 mg/l
		Copper as Cu	APHA (22 nd Edition) 3500 Cu-C: 2012 IS 3025 (Part 42): 1992 APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.03 mg/l to 10 mg/l
		pH at 25°C	IS 3025 (Part 11): 1983 (RA 2002) Electrometric Method	1 Unit to 14 Unit
		Phosphate as P	IS 3025 (Part 31): 1988 (RA 2002) Stannous Chloride Method	0.02 mg/l to 100 mg/l
		Nitrate as NO ₃	APHA (22 nd Edition) 4500 NO ₃ - B: 2012	0.1 mg/l to 100 mg/l
		Ammonia as N-NH ₃	APHA (22 nd Edition) 4500 N-NH ₃ -B&C: 2012	0.05 mg/l to 20 mg/l
		Calcium Hardness as CaCO ₃	IS 3025 (Part 40): 1991 (RA 2003) EDTA Titrimetric Method	1 mg/l to 2000 mg/l
		Magnesium Hardness as CaCO ₃	APHA (22 nd Edition) 3500-Mg B: 2012	1 mg/l to 2000 mg/l
		Sodium as Na ⁺	Flame Photometry Method IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 5000 mg/l
		Sodium Absorbtion Ratio (SAR)	IS 11624: 1986 (RA 2001)	0.1 mg/l to 10 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
		Conductivity @ 25°C	IS 3025 (Part 14): 1984 (RA 2002)	1.0 µmhos/cm to 20000 µmhos/cm
		Sulphate as SO ₄ ²⁻	APHA (22 nd Edition) 4500-SO ₄ ²⁻ E: 2012 IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 5000 mg/l
		Total Dissolved Solids	IS 3025 (Part 15): 1984 (RA 2003)	10 mg/l to 10000 mg/l
5.	Water for steam/ Distilled Water/ Demineralised Water/ Reagent Water/ Condensate Water	P- Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l
		M. Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l
		Hydroxide Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 50 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 EDTA Titrimetric Method	1 mg/l to 2000 mg/l
		Nitrate as NO ₃ ⁻	APHA (22 nd Edition): 2012 4500 NO ₃ ⁻ B	1 mg/l to 100 mg/l
		Dissolved Oxygen	IS 3025 (Part 38): 1989 (RA 2003)	0.2 mg/l to 8.0 mg/l
		pH at 25°C	IS 3025 (Part 11): 1983 (RA 2002) Electrometric Method	1 Unit to 14 Unit
		Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2002)	0.5 NTU to 200 NTU
		Conductivity @ 25°C	IS 3025 (Part 14): 1984 (RA 2002)	1.0 -20000 µmhos/cm
		Total solids	IS 3025 (Part 15): 1984 (RA 2003)	1 mg/l to 10000 mg/l
Total suspended solids	IS 3025 (Part 17): 1984 (RA 2002)	1 mg/l to 10000 mg/l		

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		Total Dissolved Solids	IS 3025 (Part 15): 1984 (RA 2003)	1 mg/l to 10000 mg/l
		Silica as SiO ₂	APHA (22 nd Edition): 2012 4500-SiO ₂ D APHA (22 nd Edition) 3112D: 2012 IS 3025 (Part 35): 1988	0.02 mg/l to 150 mg/l
		Total iron as Fe	IS 3025 (Part 53): 1993 (RA 2003) / APHA (22 nd Edition) 3500- Fe B: 2012 APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.05 mg/l to 100.0 mg/l
		Free CO ₂	APHA (22 nd Edition) 4500-CO ₂ C: 2012/ APHA (22 nd Edition) 4500-CO ₂ C: 2012	1 mg/l to 500 mg/l
		Phosphate	IS 3025 (Part 31): 1988 (RA 2002) Stannous Chloride Method	0.02 mg/l to 100 mg/l
		Colour retention of KMnO ₄ @ 27 °C	IS 1070: 1992 (RA 2003) Annexure A	0.06 mg/l to 100 mg/l
		Langlier and Ryznar Index	IS 11624 By Calculation	1 to 7
		Copper as Cu	APHA (22 nd Edition) 3500 Cu-C: 2012 IS 3025 (Part 42): 1992 APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.03 mg/l to 10 mg/l

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		Sulphate as SO ₄ ²⁻	APHA (22 nd Edition) 4500-SO ₄ ²⁻ E: 2012 IS 3025 (Part 24): 1986 (RA 2009)	1 mg/l to 5000 mg/l
6.	Drinking Water/ Ground Water/ RO Treated Water	Appearance	APHA (22 nd Edition) 2110: 2012	NA
		Colour	APHA (22 nd Edition) 2120 C, 2120 D: 2012 IS 3025 (Part 4): 1983 (RA 2006)	1 Hazen
		Odour	APHA (22 nd Edition) 2150 B: 2012 IS 3025 (Part 5): 1983 (RA 2012)	Qualitative (Agreeable/Disagreeable)
		Taste	IS 3025 (Part 7 & 8): 1983 (RA 2006)	Qualitative (Agreeable/Disagreeabl)
		Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2006)	0.5 NTU to 400 NTU
		pH at 25°C	IS 3025 (Part 11): 1983 (RA 2012) Electrometric Method	1 Unit to 14 Unit
		Conductivity @ 25°C	IS 3025 (Part 14): 1984 (RA 2002)	1 µmhos/cm to 1000 µmhos/cm
		Total solids	IS 3025 (Part 15): 1984 (RA 2003)	1 mg/l to 500 mg/l
		Total suspended solids	IS 3025 (Part 17): 1984 (RA 2002)	1 mg/l to 100 mg/l
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2006)	1 mg/ to 500 mg/
	Fixed Solids	IS 3025 (Part 18): 1984 APHA (22 nd Edition) 2540 E: 2012	1 mg/l to 500 mg/l	

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		Volatile Solids	IS 3025 (Part 18): 1984 APHA (22 nd Edition) 2540 E: 2012	1 mg/l to 100 mg/l
		Acidity as CaCO ₃	APHA (22 nd Edition) 2310-B: 2012 IS 3025 (Part 22): 1986	1 mg/l to 50 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 200 mg/l
		P- Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 200 mg/l
		M. Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 200 mg/l
		Hydroxide Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 100 mg/l
		Total Hardness as CaCO ₃	IS 3025 (Part 21): 2009 EDTA Titrimetric Method	1 mg/l to 200 mg/l
		Calcium Hardness as CaCO ₃	IS 3025 (Part 40): 1991 (RA 2003) EDTA Titrimetric Method	1 mg/l to 200 mg/l
		Magnesium Hardness as CaCO ₃	APHA (22 nd Edition): 2012 IS 3025 (Part 46): 1994 (RA 2003)	1 mg/l to 200 mg/l
		Carbonate Hardness as CaCO ₃	IS 3025 (Part 21): 2009 IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 100 mg/l
		Non-Carbonate Hardness as CaCO ₃	IS 3025 (Part 21): 2009 IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 100 mg/l
		Total & Free Carbon di oxide as CaCO ₃	APHA (22 nd Edition) 4500-CO ₂ C: 2012 IS 3025 (Part 61): 2008	1 mg/l to 50 mg/l

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		Residual Chlorine as Cl ₂ Chloramines	APHA (22 nd Edition): 2012 4500-Cl-B IS 3025 (Part 26): 1986 (RA 2003)	1 mg/l to 100 mg/l
		Fluoride as F ⁻	APHA (22 nd Edition): 2012 4500 F- B&D IS 3025 (Part 60): 2008	0.1 mg/l to 100.0 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32): 1988 (RA 2003) Argentometric Method	1 mg/l to 500 mg/l
		Sulphate as SO ₄ ²⁻	APHA (22 nd Edition) 4500-SO ₄ ²⁻ -E: 2012 IS 3025 (Part 24): 1986 (RA 2003)	1 mg/l to 500 mg/l
		Ammonia as N-NH ₃	APHA (22 nd Edition) 4500 N-NH ₃ -B&C: 2012 IS 3025 (Part 34): 1988 (RA 2009)	0.05 mg/l to 20 mg/l
		Nitrate as NO ₃	APHA (22 nd Edition) 4500 NO ₃ - B: 2012 IS 3025 (Part 34): 1988 (RA 2009)	0.1 mg/l to 100 mg/l
		Nitrite as NO ₂ -N	APHA (22 nd Edition) 4500- NO ₂ -B: 2012 IS 3025 (Part 34): 1988 (RA 2009)	0.01 mg/l to 10 mg/l
		Phosphate as PO ₄	IS 3025 (Part 31): 1988 (RA 2002) Stannous Chloride Method	0.02 mg/l to 100 mg/l
		Dissolved Oxygen as O ₂	IS 3025 (Part 38): 1989 (RA 2003) Azide Modification Method	0.2 mg/l to 8.0 mg/l

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		Sulphide as S ²⁻	APHA (22 nd Edition) 4500-S ²⁻ -F: 2012 IS 3025 (Part 29): 1986 (RA 2003)	0.5 mg/l to 100 mg/l
		Phenolic Compound as Phenol	APHA (22 nd Edition) 5530 C: 2012 IS 3025 (Part 43): 1992 (RA 2003)	0.001 mg/l to 0.250 mg/l
		Cyanide as CN	APHA (22 nd Edition) 4500 CN C & E: 2012 IS 3025 (Part 27): 1986 (RA 2003)	0.02 mg/l to 0.20 mg/l
		Anionic Surface active agent as MBAS	APHA (22 nd Edition) 5540 C: 2012 IS 13428 2005 Annexure K	0.05 mg/l to 2.0 mg/l
		Sodium as Na ⁺	IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 500 mg/l
		Potassium as K ⁺	IS 3025 (Part 45): 1993 (RA 2003)	1 mg/l to 500 mg/l
		Aluminum as Al	APHA (22 nd Edition) 3500-Al-B: 2012, IS 3025 (Part 55): 2003 APHA (22 nd Edition) 3112D: 2012	0.1 mg/l to 10 mg/l
		Antimony as Sb	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 13428 2005 Annexure G	0.05 mg/l to 5 mg/l
		Arsenic as As	APHA (22 nd Edition) 3114B: 2012 APHA (22 nd Edition)	0.01 mg/l to 1 mg/l

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			3113B: 2012 IS 3025 (Part 37): 1988 (RA 2003)	
		Barium as Ba	APHA (22 nd Edition) 3112D: 2012 IS 13428: 2005 Annexure F	0.05 mg/l to 10 mg/l
		Boron as B	APHA (22 nd Edition): 2012 4500- B-C	0.1 mg/l to 10 mg/l
		Cadmium as Cd	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 41): 1992 (RA 2003)	0.01 mg/l to 50 mg/l
		Calcium	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 40): 1991 (RA 2003)	1 mg/l to 100 mg/l
		Chromium, Total as Cr	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 52): 2003	0.01 mg/l to 50 mg/l
		Chromium Hexavalent as Cr ⁶⁺	APHA (22 nd Edition): 2012 3500- Cr B	0.03 mg/l to 100 mg/l
		Cobalt as Co	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 50 mg/l
		Copper as Cu	APHA (22 nd Edition) 3500 Cu-C: 2012 IS 3025 (Part 42): 1992 (RA 2009) APHA (22 nd Edition) 3111B: 2012	0.03 mg/l to 10 mg/l

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		Iron as Total as Fe	APHA (22 nd Edition) 3113B: 2012 1,10,Phenanthroline Method IS 3025 (Part 53): 1993 (RA 2003) APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.05 mg/l to 100.0 mg/l
		Lead as Pb	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 47): 1994 (RA 2003)	0.01 mg/l to 50 mg/l
		Manganese as Mn	APHA (22 nd Edition) 3500-Mn B: 2012, APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 59): 2006	0.01 mg/l to 100 mg/l
		Magnesium as Mg	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 APHA (22 nd Edition) 3500-Mg B: 2012 IS 3025 (Part 46): 1994 (RA 2003)	1 mg/l to 100 mg/l
		Mercury as Hg	APHA (22 nd Edition) 3112B: 2012 IS 3025 (Part 48): 1984(RA 2003)	0.001 mg/l to 0.5 mg/l

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		Molybdenum as Mo	APHA (22 nd Edition) 3112D: 2012	0.05 mg/l to 10 mg/l
		Nickel as Ni	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 54): 2003	0.01 mg/l to 50 mg/l
		Selenium as Se	APHA (22 nd Edition) 3114B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 3025 (Part 56): 2003	0.01 mg/l to 50 mg/l
		Silver as Ag	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012 IS 13428: 2005 Annexure J	0.02 mg/l to 2 mg/l
		Silicon as Si	APHA (22 nd Edition) 3112D: 2012 IS 3025 (Part 35): 1988	0.02 mg/l to 15 mg/l
		Zinc as Zn	APHA (22 nd Edition) 3500-Zn B: 2012, IS 3025 (Part 49-1994 (RA 1999)) APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 10 mg/l
7.	Swimming Pool Water	Colour	APHA (22 nd Edition) 2120 C, 2120 D: 2012	1 Hazen
		Odour	APHA (22 nd Edition) 2150 B: 2012 IS 3025 (Part 5): 1983 (RA 2006)	NA
		Taste	IS 3025 (Part 7&8): 1983 (RA 2006)	Palatable
		pH at 25 °C	IS 3025 (Part 11): 1983	1 Unit to 14 Unit

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			(RA 2002) Electrometric Method	
		Turbidity in NTU	IS 3025 (Part 10): 1984 (RA 2002)	0.5 NTU to 200 NTU
		Total Dissolved Solids	IS 3025 (Part 16): 1984 (RA 2003)/ APHA (22 nd Edition) 2540C: 2012	1 mg/l to 10000 mg/l
		Total Alkalinity as CaCO ₃	IS 3025 (Part 23): 1986 (RA 2003)	1 mg/l to 2000 mg/l
		Total Residual Chlorine as Cl ₂	APHA (22 nd Edition) 4500-Cl-B: 2012	1 mg/l to 100 mg/l
		Chloride as Cl ⁻	IS 3025 (Part 32): 1988 (RA 2003) Argentometric Method	1 mg/l to 5000 mg/l
		Iron as Fe	IS 3025 (Part 53): 1993 (RA 2003) APHA (22 nd Edition): 2012 3500- Fe B APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.05 mg/l to 100.0 mg/l
		Lead as Pb	APHA (22 nd Edition) 3111B: 2012 APHA (22 nd Edition) 3113B: 2012	0.01 mg/l to 50 mg/l
		Aluminium as Al	APHA (22 nd Edition) 3500-Al-B: 2012, IS 3025 (Part 55): 2003 APHA (22 nd Edition) 3112D: 2012	0.05 mg/l to 10 mg/l
		Oxygen Consumed from KMnO ₄ , 4 Hours	IS 3025: 1964 (RA 2005) Clause. 51	0.1 mg/l

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II. ATMOSPHERIC POLLUTION				
1.	Ambient Air	Benzene	IS 5182 (Part 11): 2006	3 µg/m ³ to 1000 µg/m ³
2.	Ambient/ Inplant Air Emission	Ambient Temperature	ABCTL/EQPT/32, Issue. 02 Dated. 01/04/2014	Ambient to 50°C
		Relative Humidity	ABCTL/EQPT/32, Issue. 02 Dated. 01/04/2014	1 % to 100 %
		Suspended Particulate matter (SPM)	IS 5182 (Part 4): 1999 (RA 2010)	1 µg/m ³ to 5000µg/m ³
		Respirable Particulate matter (Particle Size less than 10 µm), PM ₁₀	IS 5182 (Part 23): 2006 (RA 2012)	1 µg/m ³ to 5000µg/m ³
		Particulate matter (Particle Size less than 2.5 µm), PM _{2.5}	Appendix L To EPA- 40 CFR PART 50	10 µg/m ³ to 200 µg/m ³
		Sulphur dioxide as SO ₂	IS 5182 (Part 2): 2001 (RA 2012)	5 µg/m ³ to 1050 µg/m ³
		Nitrogen oxides as NOx	IS 5182 (Part 6): 2006 (RA 2012)	5 µg/m ³ to 740 µg/m ³
		Carbon Monoxide (CO)	IS 5182 (Part 10): 1999 (RA 2009)	1 µg/m ³ to 100 mg/m ³
		Ammonia (NH ₃)	Methods of Air sampling and Analysis, 3 rd Edition- Method 401-1998 (Intersociety Committee)	20 µg/m ³ to 700 µg/m ³
		Ozone as O ₃	Methods of Air sampling and Analysis (3 rd Edition): 1998.Method 411 -1998	20 µg/m ³ to 500 µg/m ³

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		Lead (Pb)	(Intersociety Committee) IS 5182 (Part 22): 2004 (RA 2009) ; CPCB NAAQMS/36/2012-13/ ABCTL/SOP/A11, Issue. 01, Dated. 02-01-2015	0.1 µg/m ³ to 10 µg/m ³
		Arsenic (As)	CPCB NAAQMS/36/2012-13/ ABCTL/SOP/A10, Issue. 01, Dated.02-01-2015	1 µg/m ³ to 100 ng/m ³
		Nickel (Ni)	USEPA Compentium Method IO- 3.2, June 1999. CPCB NAAQMS/36/2012-13/ ABCTL/SOP/A12, Issue. 01, Dated.02-01-2015	1 µg/m ³ to 100 ng/m ³
		Benzo(α)pyrene (BaP) Particulate Phase only	IS 5182 (Part 12): 2004. CPCB NAAQMS/36/2012-13/ ABCTL/SOP/A14, Issue.01, Dated. 02-01-2015	1 ng/m ³ to 100 ng/m ³
		Hydrogen sulphide as H ₂ S	IS 5182 (Part 7): 1973 (RA 2012)	6 µg/m ³ to 600 µg/m ³
		Chlorine as Cl ₂	IS 5182 (Part 19): 1982 (RA 2012)	145 µg/m ³ to 2900 µg/m ³
		Total Fluorides as F	IS 5182 (Part 13) (RA 2009)	10 µg/m ³ to 1000 µg/m ³
3.	Micro Meteorological Monitoring	Ambient Temperature Relative Humidity, %	ABCTL/EQPT/62 (Issue.01 Dated.25/04/2014)	Ambient to 50°C 1 % to 100%

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		Barometric pressure		16.3 inches Hg to 32 inches Hg
		Rainfall		0.5 mm to 100 mm
		Wind direction		0 to 360°
		Wind speed		1 km/h to 240 km/h
4.	Indoor Air Quality Monitoring	Lead as Pb	NIOSH 7105, Issue. 2, Dated. 15 Aug 1994	0.002 mg/m ³ to 1.0 mg/m ³
		Cadmium as Cd	NIOSH 7048, Issue. 2, Dated. 15 Aug 1994	0.01 mg/m ³ to 2.0 mg/m ³
		Arsenic as As,	NIOSH 7900, Issue. 2, Dated. 15 Aug 1994	0.002 mg/m ³ to 0.07 mg/m ³
		Chromium as Cr ,	NIOSH 7024, Issue. 2, Dated. 15 Aug 1994	0.005 mg/m ³ to 2.5 mg/m ³
		Copper as Cu ,	NIOSH 7029, Issue. 2, Dated. 15 Aug 1994	0.05 mg/m ³ to 1.3 mg/m ³
		Zinc as Zn,	NIOSH 7030, Issue. 2, Dated. 15 Aug 1994	1 mg/ m ³ to 10 mg/ m ³
		Aluminum as Al	NIOSH 7013, Issue. 2, Dated. 15 Aug 1994	0.5 mg/ m ³ to 10 mg/ m ³
5.	Illumination Monitoring	Luminance	ABCTL/EQPT/61 (Issue. 02 Dated. 01/04/2014)	10 Lux to 100000 Lux
6.	Noise Level Monitoring	L _{eq} (Day & Night)	IS 9989): 1981 (RA 2012) ABCTL/EQPT/17, Issue. 02 Dated. 01/04/2014	30dB(A) to 130 dB(A)
7.	Stack Emission-DG/Boiler/ Scrubber Stack	Particulate Matter	IS 11255 (Part 1): 1985 (RA 2009)	1 mg/Nm ³ to 1000 mg/Nm ³
		Carbon Monoxide	BS EN 50379-1: 2012	1 ppm to 10000 ppm
		Carbon di oxide	BS EN 50379-1: 2012	1 % to 16 %

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		Oxygen	BS EN 50379-1: 2012	1 % to 21 %
		Sulphur di Oxide	BS EN 50379-1: 2012	1 mg/Nm ³ to 4000 mg/Nm ³
		Nitrogen di Oxide	BS EN 50379-1: 2012	1 mg/Nm ³ to 4000 mg/Nm ³
		Sulphuric Acid mist	USEPA 8, Dec 1996	1 mg/m ³ to 100 mg/m ³
		Moisture Content	IS 11255 (Part 3): 1985 (RA 2009)	0.1 % to 10 %
		Ammonia as NH ₃	IS 11255 (Part 6): 1999 (RA 2009)	5 mg/Nm ³ to 100 mg/Nm ³
		Temperature	IS 11255 (Part 3): 1985 (RA 2009)	35° to 950°C
		Velocity	IS 11255 (Part 3): 2008 (RA 2009)	3 m/s to 45 m/s
		Gaseous Discharge (Nm ³ /hr)	IS 11255 (Part 3): 2008 (RA 2009)	100 Nm ³ / hr to 10,00000 Nm ³ / hr
IV.	POLLUTION AND ENVIRONMENT			
1.	Soil	Moisture	IS 2720 (Part 2): 1973 (RA 2010)	0.1 % to 50 %
		pH @ 25°C	IS 2720 (Part 26): 1987 (RA 2011)	1 to 10
		Conductivity @ 25°C	IS 14767: 2000 (RA 2010)	0.1 mmhos/cm to 00000 mmhos/cm
		Bulk Density, g/cc	FAO Chapter 3 /ABCTL/SOIL/SOP 1 (Issue. 01 & Dated. 02/01/2015)	0.5 g/cc to 5 g/cc
		Available Nitrogen as N	IS 14684: 1999 (RA 2008)	10 mg/kg to 1000 mg/kg

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		Available Phosphorus as P	FAO Chapter 3/ ABCTL/SOIL SOP 2 (Issue. 01, Dated. 02/01/2015)	1 mg/kg to 500 mg/kg
		Organic Matter	IS 2720 (Part 22): 1972 (RA 2010)	0.1 % to 1%
		Cation Exchange Capacity	IS 2720 (Part 24): 1976 (RA 2007)	(3 meq to 100 meq)/100 g
		Exchangeable Calcium as Ca	FAO Chapter 3/ ABCTL/SOIL SOP 4 (Issue. 01, Dated. 02/01/2015)	(1 meq to 100 meq)/100 g
		Exchangeable Magnesium as Mg	FAO Chapter 3/ ABCTL/SOIL SOP 5 (Issue. 01, Dated. 02/01/2015)	(1 meq to 100 meq)/100 g
		Exchangeable Sodium as Na	FAO Chapter 3/ ABCTL/SOIL SOP.6 (Issue. 01, Dated. 02/01/2015)	(1 meq to 100 meq)/100 g
		Exchangeable Potassium as K	FAO Chapter 3/ ABCTL/SOIL/SOP 7 (Issue. 01, Dated. 02/01/2015)	(1 meq to 100 meq)/100 g
2.	Sludge/ Solid Waste	Volatile Matter	IS 10158: 1982 (RA 2009)	0.1 % to 90 %
		Non-Volatile Matter	IS 10158: 1982 (RA 2009)	0.1 % to 100 %
		Total Lead as Pb	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Cadmium as Cd	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Mercury as Hg	EPA 7471 A Feb 2007	5 mg/kg to 500 mg/kg
		Total Copper as Cu	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Zinc as Zn	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg

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		Total Selenium as Se	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Arsenic as As	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Iron as Fe	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Manganese as Mn	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Chromium as Cr	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Hexavalent Chromium as Cr ⁶⁺	7196A- July 1992	5 mg/kg to 500 mg/kg
		Total Nickel as Ni	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Aluminum as Al	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
		Total Molybdenum as Mo	USEPA 3050B- Dec 1996	5 mg/kg to 500 mg/kg
3.	Toxic Waste - Toxicity Characteristic Leaching Procedure	Cadmium as Cd	USEPA 1311 (July 1992) & 7130&7131A (Sep 1994)	0.1 mg/l to 100 mg/l
		Arsenic as As	USEPA 1311& 7061A (July 1992)	0.1 mg/l to 100 mg/l
		Barium as Ba	USEPA 1311& 7081 (July 1992)	0.1 mg/l to 100 mg/l
		Chromium as Cr ⁶⁺	USEPA 1311& 7196 (July 1992)	0.1 mg/l to 100 mg/l
		Total Chromium as Cr	USEPA 1311 (July 1992) & 7191 (Sep 1986)	0.1 mg/l to 100 mg/l
		Cobalt as Co	USEPA 1311 (July 1992) & 7201 (Sep 1986)	0.1 mg/l to 100 mg/l
		Lead as Pb	USEPA 1311 (July 1992) & 7421 (Sep 1986)	0.1 mg/l to 100 mg/l
		Mercury as Hg	USEPA 1311 (July 1992) & 7471 B (Feb 2007)	0.05 mg/l to 100 mg/l
		Selenium as Se	USEPA 1311 (July 1992) & 7742 (Sep 1994)	0.1 mg/l to 100 mg/l
		Silver as Ag	USEPA 1311 & 7761 (July 1992)	0.1 mg/l to 100 mg/l

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		Zinc as Zn	USEPA 1311& 7951 (July 1992)	0.1 mg/l to 100 mg/l
		Copper as Cu	USEPA 1311& 7211 (July 1992)	0.1 mg/l to 100 mg/l
		Strontium as St	USEPA 1311 (July 1992) & 7780 Revision 2 Sep 1994	0.1 mg/l to 100 mg/l
		Lithium as Li	USEPA 1311 (July 1992) & 7430	0.1 mg/l to 100 mg/l
		Nickel as Ni	USEPA 1311 (July 1992) & 7521 (Dec 1996)	0.1 mg/l to 100 mg/l
		Vanadium as V	USEPA 1311 (July 1992) & 7911 (Sep 1986)	0.1 mg/l to 100 mg/l
		Antimony as Sb	USEPA 1311 (July 1992) & 7041 (Sep 1986)	0.1 mg/l to 100 mg/l
		Tin as Sn	USEPA 1311 (July 1992) & 7870 (Sep 1986)	0.1 mg/l to 100 mg/l
		Beryllium as Be	USEPA 1311 (July 1992) & 7091 (Sep 1986)	0.1 mg/l to 100 mg/l
		Molybdenum as Mo	USEPA 1311 (July 1992) & 7481 (Sep 1986)	0.1 mg/l to 100 mg/l

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