

<b>Laboratory</b>	<b>Indicative Consultant India, Basudevpur, P.O. Khanjanchak, Haldia, Purba Medinipur, West Bengal</b>		
<b>Accreditation Standard</b>	<b>ISO/IEC 17025: 2005</b>		
<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>26.06.2015</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. AIR, GASES &amp; ATMOSPHERE</b>				
<b>1.</b>	<b>Ambient Air / Fugitive Air</b>	Suspended Particulate Matter Spm	IS 5182 (Part 4): 1999 (RA 2005) ICI/SOP/01 (Issue No. 2 Dated. 05.05.2015)	4 µg/m <sup>3</sup> to 2000 µg/m <sup>3</sup>
		Respirable Particulate Matter (PM <sub>10</sub> )	IS 5182 (Part 23): 2006 ICI/SOP/01 (Issue No. 2 Dated. 05.05.2015)	2 µg/m <sup>3</sup> to 1000 µg/m <sup>3</sup>
		Respirable Particulate Matter (PM <sub>2.5</sub> )	USEPA CFR 40 (Part 50): Appendix L/ ICI/SOP/01 (Issue No. 2 Dated. 05.05.2015)	2.5 µg/m <sup>3</sup> to 200 µg/m <sup>3</sup>
		Sulphur Dioxide	IS 5182 (Part 2): 2001 Colorimetric Method & ICI/SOP/01 (Issue No. 2 Dated. 05.05.2015)	4 µg/m <sup>3</sup> to 200 µg/m <sup>3</sup>
		Oxides of Nitrogen (Nox)	IS 5182 (Part 6): 2006 ICI/SOP/01 (Issue No. 2 Dated. 05.05.2015)	9 µg/m <sup>3</sup> to 200 µg/m <sup>3</sup>
		Ozone (O <sub>3</sub> )	UV Absorption % to Ozone Monitor/ICI/SOP/01 (Issue No. 2 Dated. 05.05.2015)	1 µg/m <sup>3</sup> to 300 µg/m <sup>3</sup>
		Ammonia (NH <sub>3</sub> )	Methods of Air Sampling and Analysis (3 <sup>rd</sup> Edition) Method 401/ICI/SOP/01 (Issue No. 2 Dated. 05.05.2015)	30 µg/m <sup>3</sup> and above
<b>2.</b>	<b>Stack Emission Monitoring</b>	Particulate Matter	IS 11255 (Part 1): 1985 (RA 2003) ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015)	1.0 mg/m <sup>3</sup> and above

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	<b>Stack Emission Monitoring</b>	Flow Rate	IS 11255 (Part 3): 2008 ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015) USEPA Method 2	NA
		Sulphur Dioxide	IS 11255 (Part 2): 1985 (RA 2003) ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015) USEPA Method 6	5.3 mg/Nm <sup>3</sup> to 1000 mg/Nm <sup>3</sup>
		Oxides of Nitrogen (Nox)	EPA, Method No 7/ ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015)	≥2 mg/Nm <sup>3</sup>
		Carbon Dioxide	IS 13270: 1992 (RA 2003) Methods of Air Sampling and Analysis ORSAT Method/ ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015)	0.2 % to 20 %
		Carbon Monoxide	IS 13270: 1992 (RA 2003) Methods of Air Sampling and Analysis ORSAT Method/ ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015)	0.2 % to 20 %
		Oxygen	IS 13270: 1992 (RA 2003) Methods of Air Sampling and Analysis ORSAT Method/ ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015)	0.2 % to 20 %
		Moisture Content	ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015)/ USEPA Method 4	2 % and above

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	<b>Stack Emission Monitoring</b>	Temperature	ICI/SOP/02 (Issue No. 2 Dated. 05.05.2015)/ USEPA Method 2	1 °C and above
		Velocity	ICI/SOP/02/ USEPA Method 2	3 m/s and above
<b>3.</b>	<b>Ambient Noise</b>	Noise Level Measurement in Db(A) Unit	IS 4954: 1968 (RA 2006)/ ICI/SOP/10 (Issue No. 2 Dated. 05.05.2015)	35 dB(A) to 130 dB(A)
<b>4.</b>	<b>Meteorology</b>	Rainfall, Wind Speed, Wind Direction, Temperature and Humidity	Meteorological Monitoring Guidance for Regulatory Modeling Applications EPA 454/R 99005, February, 2000/ ICI/SOP/11 (Issue No. 2 Dated. 05.05.2015)	2 ml ≥1 m/s 1 °C to 50 °C 2 % to 97 %
<b>II. WATER</b>				
<b>1.</b>	<b>Waste Water</b>	Total Suspended Solids	APHA (22 <sup>nd</sup> Edition) 2540D: 2012 IS 3025 (Part 17): 1984 (RA 1999) Third Reprint 2000 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
		Oil and Grease	APHA (22 <sup>nd</sup> Edition) 5520 B: 2012 IS 3025 (Part 39): 1991 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.0 mg/l
		Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.0 mg/l

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	<b>Waste Water</b>	Chemical Oxygen Demand (COD)	APHA (22 <sup>nd</sup> Edition) 5220-B/: 2012 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	4.0 mg/l and above
		Turbidity	APHA (22 <sup>nd</sup> Edition) 2130-B: 2012 IS 3025 (Part 10): 1984 (RA 2002)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 NTU to 1000 NTU
		Total Dissolved Solids	APHA (22 <sup>nd</sup> Edition) 2540-C: 2012 IS 3025 (Part 16): 1984 (RA 2002) ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
		Total Solid	APHA (22 <sup>nd</sup> Edition) 2540-B: 2012 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
		Residual Chlorine	APHA (22 <sup>nd</sup> Edition) 4500-C1 B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l and above
		pH Value	APHA (22 <sup>nd</sup> Edition) 4500-H <sup>+</sup> B: 2012 IS 3025 (Part 2): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 unit to 13 unit
		Conductivity	APHA (22 <sup>nd</sup> Edition) 2510-B: 2012 IS 3025 (Part 14): 1984 (RA 2002)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1μ S/cm to 200 mS/cm

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	<b>Waste Water</b>	Chloride as Cl <sup>-</sup>	APHA (22 <sup>nd</sup> Edition) 4500-Cl <sup>-</sup> B: 2012 IS 3025 (Part 32): 1988 (RA 2003)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.5 mg/l
		Fluoride as F <sup>-</sup>	APHA (22 <sup>nd</sup> Edition) 4500-F <sup>-</sup> D: 2012 IS 3025 (Part 60): 2008 ICI/SOP/03	≥0.04 mg/l
		Sulphates as SO <sub>4</sub> <sup>2-</sup>	APHA (22 <sup>nd</sup> Edition) 4500 SO <sub>4</sub> <sup>2-</sup> E: 2012 / IS 3025 (Part 24): 1986 (RA 2003)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1.5 mg/l
		Sulphide as S <sup>2-</sup>	APHA (22 <sup>nd</sup> Edition) 4500 S <sup>2-</sup> F: 2012 IS 3025 (Part 29): 1986 (RA 2003)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	0.1 mg/l to 2 mg/l
		Anionic Detergent as MBAS	APHA (22 <sup>nd</sup> Edition) 5540-C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	0.02 mg/l to 1 mg/l
		Total Hardness as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 IS 3025 (Part 21): 1983 (RA 2002) (EDTA titrimetric Method) ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l

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	<b>Waste Water</b>	Alkalinity as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2320-B: 2012 IS 3025 (Part 23): 1986 (RA 1998)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Calcium as Ca	APHA (22 <sup>nd</sup> Edition) 3500-Ca B: 2012 IS 3025 (Part 40): 1991 (RA 2003) (EDTA titrimetric Method) ICI/SOP/03	≥0.4 mg/l
		Magnesium as Mg	APHA (22 <sup>nd</sup> Edition) 3500 Mg B: 2012 IS 3025 (Part 46): 1994 (RA 2003)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.24 mg/l
		Calcium Hardness as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Magnesium Hardness as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Carbonate Hardness as CaCO <sub>3</sub> / Permanent Hardness	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	By calculation
		Non % to Carbonate Hardness as CaCO <sub>3</sub> / Temporary Hardness	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	By calculation

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	<b>Waste Water</b>	Total Chromium As Cr	APHA (22 <sup>nd</sup> Edition) 3500-Cr B: 2012 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Dissolved Oxygen	APHA (22 <sup>nd</sup> Edition) 4500-OC: 2012 IS 3025 (Part 38): 1989 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 mg/l to 10 mg/l
		Nitrate as NO <sub>3</sub> <sup>-</sup>	APHA (22 <sup>nd</sup> Edition) 4500 NO <sub>3</sub> <sup>-</sup> E: 2012/ IS 3025 (Part 34): 1988 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1mg/l
		Nitrate as NO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 4500 NO <sub>3</sub> <sup>-</sup> B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Nitrite Nitrogen as NO <sub>2</sub>	APHA (22 <sup>nd</sup> Edition) 4500 NO <sub>2</sub> <sup>-</sup> B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.02 mg/l
		Phosphate as P	APHA (22 <sup>nd</sup> Edition) 4500-P D: 2012/ IS 3025 (Part 31): 1998 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.02 mg/l
		Silica as SiO <sub>2</sub>	APHA (22 <sup>nd</sup> Edition) 4500-SiO <sub>2</sub> C: 2012 IS 3025 (Part 35): 1988 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.02 mg/l

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	<b>Waste Water</b>	Temperature	IS 3025 (Part 9): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	>4 °C
		Odour	APHA (22 <sup>nd</sup> Edition) 2150-B: 2012 / IS 3035 (Part 5): 1983 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	Qualitative (Objectionable/ Unobjectionable)
		Ammoniacal Nitrogen As N	APHA (22 <sup>nd</sup> Edition) 4500 NH <sub>4</sub> F: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Total Kjeldahl Nitrogen	APHA (22 <sup>nd</sup> Edition) 4500 N <sub>org</sub> -B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Phenolic Compound	APHA (22 <sup>nd</sup> Edition) 5530-C & D: 2012 IS 3025 (Part 43): 1991 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.08 mg/l
		Acidity	APHA (22 <sup>nd</sup> Edition) 2310-B: 2012 Titration Method/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Iron as Fe	APHA (22 <sup>nd</sup> Edition) 3500-Fe B: 2012 / IS 3025 (Part 53): 2003/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.01 mg/l



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	<b>Waste Water</b>	Chromium Hexavalent As Cr <sup>+6</sup>	APHA (22 <sup>nd</sup> Edition) 3500-Cr B: 2012/ IS 3025 (Part 52): 2003 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Taste	IS 3025 (Part 7): 1994 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	Qualitative (Agreeable/ Disagreeable)
		MLSS	APHA (22 <sup>nd</sup> Edition) 2540-D: 2012 / IS 3025 (Part 17): 1984 (RA 1999) Third Reprint 2000/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
		Sodium as Na	IS 3025 (Part 37): 1993 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1.0 mg/l
		Potassium as K	IS 3025 (Part 37): 1993 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1.0 mg/l
<b>2.</b>	<b>Potable Water/ Ground Water/ Surface Water</b>	Total Suspended Solids	APHA (22 <sup>nd</sup> Edition) 2540-D: 2012 IS 3025 (Part 17): 1984 (RA 1999) Third Reprint 2000 ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
		Oil and Grease	APHA (22 <sup>nd</sup> Edition) 5520-B: 2012 IS 3025 (Part 39): 1991 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.0 mg/l

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	<b>Potable Water/ Ground Water/ Surface Water</b>	Biochemical Oxygen Demand (BOD)	IS 3025 (Part 44): 1993 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.0 mg/l
		Chemical Oxygen Demand (COD)	APHA (22 <sup>nd</sup> Edition) 5220-B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	4.0 mg/l and above
		Turbidity	APHA (22 <sup>nd</sup> Edition) 2130- B: 2012 IS 3025 (Part 10): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 NTU to 1000 NTU
		Total Dissolved Solids	APHA (22 <sup>nd</sup> Edition) 2540-C: 2012 IS 3025 (Part 16): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
		Total Solid	APHA (22 <sup>nd</sup> Edition) 2540-B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
		Residual Chlorine	APHA (22 <sup>nd</sup> Edition) 4500-C1 B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l and above
		Total Dissolved Solids	APHA (22 <sup>nd</sup> Edition) 2540-C: 2012 IS 3025 (Part 16): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l

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	<b>Potable Water/ Ground Water/ Surface Water</b>	pH Value	APHA (22 <sup>nd</sup> Edition) 4500-H <sup>+</sup> B: 2012 IS 3025 (Part 2): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 unit to 13 unit
		Conductivity	APHA (22 <sup>nd</sup> Edition) 2510-B: 2012 IS 3025 (Part 14): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 mS/cm to 200 mS/cm
		Chloride as Cl <sup>-</sup>	APHA (22 <sup>nd</sup> Edition) 4500- Cl B: 2012 / IS 3025 (Part 32): 1988 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.5 mg/l
		Fluoride as F <sup>-</sup>	APHA (22 <sup>nd</sup> Edition) 4500F D: 2012 / IS 3025 (Part 60): 2008/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.04 mg/l
		Sulphates as SO <sub>4</sub> <sup>2-</sup>	APHA (22 <sup>nd</sup> Edition) 4500 SO <sub>4</sub> <sup>2-</sup> E: 2012 IS 3025 (Part 24): 1986 (RA 2003)/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1.5 mg/l
		Sulphide as S <sup>2-</sup>	APHA (22 <sup>nd</sup> Edition) 4500 S <sup>2-</sup> F: 2012 / IS 3025 (Part 29): 1986, (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	0.1 mg/l to 25 mg/l
		Anionic Detergent as MBAS	APHA (22 <sup>nd</sup> Edition) 5540-C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	0.02 mg/l to 10 mg/l

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<b>Discipline</b>	<b>Chemical Testing</b>	<b>Issue Date</b>	<b>26.06.2015</b>
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	<b>Potable Water/ Ground Water/ Surface Water</b>	Total Hardness as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2340- C: 2012 IS 3025 (Part 21): 1983 (RA 2002) (EDTA titrimetric Method) ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Alkalinity as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2320-B: 2012 IS 3025 (Part 23): 1986 (RA 1998)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Calcium as Ca	APHA (22 <sup>nd</sup> Edition) 3500-Ca B: 2012 IS 3025 (Part 40): 1991 (RA 2003) (EDTA titrimetric Method) ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.4 mg/l
		Magnesium as Mg	APHA (22 <sup>nd</sup> Edition) 3500-Mg B: 2012 IS 3025 (Part 46): 1994 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.24 mg/l
		Calcium Hardness as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Magnesium Hardness as CaCO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l

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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>Potable Water/ Ground Water/ Surface Water</b>	Carbonate Hardness as CaCO <sub>3</sub> Permanent Hardness	APHA (22 <sup>nd</sup> Edition) 2340-C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	By calculation
		Non - Carbonate Hardness as CaCO <sub>3</sub> Temporary Hardness	APHA (22 <sup>nd</sup> Edition) 2340- C: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	By calculation
		Total Chromium As Cr	APHA (22 <sup>nd</sup> Edition) 3500-Cr B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Dissolved Oxygen	APHA (22 <sup>nd</sup> Edition) 4500-OC: 2012 /IS 3025 (Part 38): 1989, (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l
		Nitrate as NO <sub>3</sub> <sup>-</sup>	APHA (22 <sup>nd</sup> Edition) 4500 NO <sub>3</sub> <sup>-</sup> E: 2012 / IS 3025 (Part 34): 1988, (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1mg/l
		Nitrate as NO <sub>3</sub>	APHA (22 <sup>nd</sup> Edition) 4500 NO <sub>3</sub> <sup>-</sup> B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Nitrite Nitrogen As NO <sub>2</sub>	APHA (22 <sup>nd</sup> Edition) 4500 NO <sub>2</sub> <sup>-</sup> B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.02 mg/l
		Phosphate as P	APHA (22 <sup>nd</sup> Edition) 4500- P D: 2012 IS 3025 (Part 31): 1998, (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.02 mg/l

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	<b>Potable Water/ Ground Water/ Surface Water</b>	Silica as SiO <sub>2</sub>	APHA (22 <sup>nd</sup> Edition) 4500- SiO <sub>2</sub> C: 2012 / IS 3025 (Part 35): 1988, (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.02 mg/l
		Temperature	IS 3025 (Part 9 ): 1984, (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	>4 °C
		Odour	APHA (22 <sup>nd</sup> Edition) 2150-B: 2012 IS 3035 (Part 5): 1983 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	Qualitative (Objectionable/ Unobjectionable)
		Ammoniacal Nitrogen As N	APHA (22 <sup>nd</sup> Edition) 4500 NH <sup>3</sup> - F: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Total Kjeldahl Nitrogen	APHA (22 <sup>nd</sup> Edition) 4500 Norg-B: 2012 / ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Phenolic Compound	APHA (22 <sup>nd</sup> Edition) 5530-C& D: 2012 , IS 3025 (Part 43): 1991 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.08 mg/l
		Acidity	APHA (22 <sup>nd</sup> Edition) 2310-B: 2012/ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015) Titration Method	≥1 mg/l
			APHA (22 <sup>nd</sup> Edition) 3500- Fe B: 2012 / IS 3025 (Part 53): 2003/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.01 mg/l

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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>Potable Water/ Ground Water/ Surface Water</b>	Chromium Hexavalent As Cr <sup>+6</sup>	APHA (22 <sup>nd</sup> Edition) 3500-Cr B: 2012 / IS 3025 (Part 52): 2003/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.1 mg/l
		Taste	IS 3025 (Part 7): 1994 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	Qualitative (Agreeable/ Disagreeable)
		Sodium as Na	IS 3025 (Part 37): 1993/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1.0 mg/l
		Potassium as K	IS 3025 (Part 37): 1993/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1.0 mg/l
<b>3.</b>	<b>Construction Water</b>	pH Value	APHA (22 <sup>nd</sup> Edition) 4500-H <sup>+</sup> B: 2012 IS 3025 (Part 2): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 unit to 13 unit
		Conductivity	APHA (22 <sup>nd</sup> Edition) 2510-B: 2012 IS 3025 (Part 14): 1984 (RA 2002)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	1 mS/cm to 200 mS/cm
		Total Suspended Solids	APHA (22 <sup>nd</sup> Edition) 2540-D: 2012 IS 3025 (Part 17): 1984, (RA 1999) Third Reprint 2000/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l

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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>Construction Water</b>	Chloride as Cl <sup>-</sup>	APHA (22 <sup>nd</sup> Edition) 4500-C1 B: 2012 IS 3025 (Part 32): 1988 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥0.5 mg/l
		Sulphates as SO <sub>4</sub> <sup>2-</sup>	APHA (22 <sup>nd</sup> Edition): 2012 IS 3025 (Part 24): 1986 (RA 2003)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1.5 mg/l
		Acidity, 0.02 (N) NaOH Required to Neutralize 100ml Sample Using Phenolphthalein as An Indicator	IS 3025 (Part 22): 1986 (RA 2009/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l and above
		Alkalinity, 0.02 (N) H <sub>2</sub> SO <sub>4</sub> Required to Neutralize 100ml Sample Using Mixed Indicator	IS 3025 (Part 23): 1986 (RA 2009)/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/l and above
		Organic Matter	APHA (22 <sup>nd</sup> Edition) 5220-B: 2012/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	4.0 mg/l and above
		In Organic Matter	APHA (22 <sup>nd</sup> Edition) 2540-D: 2012 IS 3025 (Part 17): 1984 (RA 1999) Third Reprint 2000/ ICI/SOP/03 (Issue No. 2 Dated. 05.05.2015)	≥2.5 mg/l
<b>III. BUILDING MATERIALS</b>				
<b>1.</b>	<b>Soils and Sediments</b>	pH	IS 2720 (Part 26): 1987 , Soil Chemical Analysis by M.L.JACKSON , ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	1 Unit to 13 Unit



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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>Soils and Sediments</b>	Conductivity	Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	1 mS/cm to 200 mS/cm
		Moisture	IS 2720 (Part 2): 1973, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	0.05 % to 50 %
		Available Calcium as Ca	Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	24 g/kg to 2400 g/kg
		Available Magnesium as Mg	Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	14.5 mg/kg to 1450 mg/kg
		Total Nitrogen	Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	≥10 mg/kg to 100 mg/kg
		Organic Matter	IS 2720 (Part 22): 1972 (RA 1978)/ Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	≥1 mg/kg
		Chloride	Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	15 mg/kg to 1500 mg/kg
		Sulphate	IS 2720 (Part 27): 1977(RA 2006) / Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	20.5 mg/kg to 410 mg/kg

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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>Soils and Sediments</b>	Available Phosphorous as P	Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	3 mg/kg to 200 mg/kg
		Available Iron as Fe	Soil Chemical Analysis by M.L.JACKSON, ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	≥ 5 mg/kg
		Bulk Density	ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	NA
		Particle Density	ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	NA
		Porosity	ICI/SOP/12 (Issue No. 2 Dated. 05.05.2015)	By calculation
<b>2.</b>	<b>Mild Steel, Carbon Steel, Alloy Steel Which Includes Tube / Wire / Bar / Flat / Plate / Angle / Welding Plate</b>	Carbon Content	IS 228 (Part 1): 1987 (RA 2008)/ ICI/SOP/04 (Issue No. 2 Dated. 05.05.2015)	0.05 % to 2.5 %
		Manganese	IS 228 (Part 2): 1987 (RA 2008)/ ICI/SOP/04 (Issue No. 2 Dated. 05.05.2015)	0.02 % to 3.0 %
		Silicon	IS 228 (Part 8): 1987 (RA 2009)/ ICI/SOP/04 (Issue No. 2 Dated. 05.05.2015)	0.05 % to 5.0 %
		Sulphur	IS 228 (Part 9): 1987 (RA 2009) / ICI/SOP/04 (Issue No. 2 Dated. 05.05.2015)	0.002 % to 0.15 %
		Phosphorous	IS 228 (Part 3): 1987/ ICI/SOP/04 (Issue No. 2 Dated. 05.05.2015)	0.02 % to 0.15 %

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

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	<b>Mild Steel, Carbon Steel, Alloy Steel Which Includes Tube / Wire / Bar / Flat / Plate / Angle / Welding Plate</b>	Carbon Equivalent (Micro/Trace Alloys) Excluding	By calculation using formula in IS 1786: 2008 Page. 2 ICI/SOP/04 (Issue No. 2 Dated. 05.05.2015)	0.42 % to 0.53 %

-X-X-X-X-X-X-X-X-X-X-X-X-