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5	SI.	Product / Material	Specific Test Performed	Test Method Specification	Range of Testing /
		of Test		against which tests are	Limits of Detection
				performed	

CHEMICAL TESTING

I.	POLLUTION & EI	NVIRONMENT		
1.	Waste Water (Effluents/ Sewage)	рН	APHA, 23 rd Edition 2017 Electrometric Method 4500-H ⁺ B	1 to 12
		Total Solids	APHA, 23 rd Edition 2017 Gravimetric Method 2540B	10 mg/L to 10000 mg/L
		Total Dissolved Solid	APHA, 23rd Edition 2017 Gravimetric Method 2540C	10 mg/L to 10000 mg/L
		Total Suspended Solid	APHA, 23 rd Edition 2017 Gravimetric Method 2540D	5 mg/L to1000 mg/L
		Chloride as Cl	APHA, 23 rd Edition 2017 Argentometric Method 4500-Cl ⁻ B	5 mg/L to 5000 mg/L
		Sulphate as SO₄	APHA, 23 rd Edition 2017 Turbidimetric Method 4500E	1 mg/L to 1000 mg/L
		Chlorine (Residual)	APHA, 23 rd Edition 2017 lodometric Method, 4500 CI B	1 mg/L to 5 mg/L
		Potassium as K	APHA, 23 rd Edition 2017 Flame –photometer Method 3500 K B	1 mg/L to 100 mg/L
		Biochemical Oxygen Demand (BOD) 3 days 27 °C	IS 3025 (Part 44): 1993 (RA 2003)	2 mg/L to 5000 mg/L
		Chemical Oxygen Demand (COD)	APHA, 23 rd Edition 2017, Open Reflux Method, 5220 B	5 mg/L to 10000 mg/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Oil & Grease	APHA, 23 rd Edition 2017, Gravimetric Method 5520B	10 mg/L to 100 mg/L
		Total Kjeldahl Nitrogen as N	APHA, 23 rd Edition 2017, 4500-Norg-B	1 mg/L to 100 mg/L
II.	WATER			
1.	Drinking Water	рН	APHA, 23 rd Edition 2017 Electrometric Method 4500-H ⁺ B	6.5 to 8.5
		Total Solids	APHA, 23 rd Edition 2017 Gravimetric Method 2540B	01 mg/L to 2000 mg/L
•••••		Total Dissolved Solid	APHA, 23 rd Edition 2017 Gravimetric Method 2540 C	01 mg/L to 2000 mg/L
		Total Suspended Solid	APHA, 23 rd Edition 2017 Gravimetric Method 2540D	1 mg/L to100 mg/L
		Specific Conductance	APHA, 23 rd Edition 2017 by Conductivity meter, 2510 B	1 µmho/cm to 3000 µmho/cm
		Turbidity	APHA, 23 rd Edition 2017 Nephelometric Method, 2130 B	0.1 NTU to10 NTU
		Alkalinity as CaCO ₃	APHA, 23 rd Edition 2017 Titrimetric Method 2320 B	1 mg/L to 1000 mg/L
		Total Hardness as CaCO ₃	APHA, 23 rd Edition 2017 EDTA Titrimetric Method 2340 C	1 mg/L to 1000 mg/L
		Calcium Hardness as CaCO ₃	APHA, 23 rd Edition 2017 EDTA Titrimetric Method 3500 CaB	1 mg/L to 500 mg/L
		Magnesium Hardness as CaCO ₃	APHA, 23 rd Edition 2017 Calculation Method 3500- Mg B	2 mg/L to 500 mg/L
		Chloride as Cl	APHA, 23 rd Edition 2017 Argentometric Method	1 mg/L to 1000 mg/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		T	4500-Cl ⁻ B	
		Sulphate as SO ₄	APHA, 23 rd Edition 2017 Turbidimetric Method 4500 -SO ₄ ² E	1 mg/l to 400 mg/L
		Chlorine (Residual)	APHA, 23 rd Edition 2017 Iodometric Method, 4500 CI B	0.2 mg/L to 4 mg/L
		Phosphate as PO₄-P	APHA, 23 rd Edition 2017, Stannous chloride method ,4500PD	0.01 mg/L to 1 mg/L
		Nitrogen Nitrate as NO ₃ -N	APHA, 23 rd Edition 2017 UV Spectrophotometric Method. 4500-NO₃B,	0.01 mg/L to 50 mg/L
		Nitrogen Nitrite as NO ₂ -N	APHA, 23 rd Edition 2017 Colorimetric Method 4500- NO ₂ B	0.01 mg/l to 1 mg/L
		Boron as B	APHA, 23 rd Edition 2017 Carmine Method 34500-B C	0.01 mg/L to 1 mg/L
		Fluoride as F	APHA, 23 rd Edition 2017 SPANDS Method 4500-F ⁻ D	0.1 mg/L to 2.0 mg/L
		Dissolved Oxygen	APHA, 23 rd Edition 2017 Azide Modification, 4500- O C	0.1 mg/l to 10.0 mg/L
		Sodium as Na	APHA, 23 rd Edition 2017 Flame-photometer Method 3500 Na B	1 mg/L to 200 mg/L
		Potassium as K	APHA, 23 rd Edition 2017 Flame –photometer Method 3500 K B	1 mg/L to 50 mg/L
		Biochemical Oxygen Demand (BOD) 3 days 27 °C	IS 3025 (Part 44): 1993 (RA 2003)	1 mg/L to 50 mg/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Chemical Oxygen Demand (COD)	APHA, 23 rd Edition 2017, Open Reflux Method, 5220 B	1 mg/L to 100 mg/L
		Oil & Grease	APHA,23 rd Edition 2017, Liquid-Liquid Partition Gravimetric Method 5520B	1 mg/L to 10 mg/L
		Total Kjeldahl Nitrogen as N	APHA, 23 rd Edition 2017, 4500-Norg-B.	01 mg/L to 100 mg/L
		Ammonical Nitrogen as NH ₃ -N	APHA, 23 rd Edition 2017 Phenate Method 4500 NH3-F	0.01 mg/L to 1.0 mg/L
		Fixed dissolved solids	APHA, 23 rd Edition 2017, 2540-E	1 mg/L to 2000 mg/L
2.	Ground Water	pH	APHA, 23 rd Edition 2017 Electrometric Method 4500-H [†] B	6.5 to 8.5
		Total Solids	APHA, 23 rd Edition 2017 Gravimetric Method 2540B	01 mg/L to 2000 mg/L
		Total Dissolved Solid	APHA, 23 rd Edition 2017 Gravimetric Method 2540 C	01 mg/L to 2000 mg/L
		Total Suspended Solid	APHA, 23 rd Edition 2017 Gravimetric Method 2540D	1 mg/L to 100 mg/L
		Specific Conductance	APHA, 23 rd Edition 2017 by conductivity meter, 2510 B	1 µmho/cm to 3000 µmho/cm
		Turbidity	APHA, 23 rd Edition 2017 Nephelometric Method, 2130 B	0.1 NTU to 10 NTU
		Alkalinity as CaCO ₃	APHA, 23 rd Edition 2017 Titrimetric Method 2320 B	1 mg/L to 1000 mg/L
		Total Hardness as CaCO₃	APHA, 23 rd Edition 2017 EDTA Titrimetric Method 2340 C	1 mg/L to 1000 mg/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Calcium Hardness as CaCO ₃	APHA, 23 rd Edition 2017 EDTA Titrimetric Method 3500 CaB	1 mg/L to 500 mg/L
		Magnesium Hardness as CaCO ₃	APHA, 23 rd Edition 2017 Calculation Method 3500- Mg B	2 mg/L to 500 mg/L
		Chloride as Cl	APHA, 23 rd Edition 2017 Argentometric Method 4500-CI ⁻ B	1 mg/L to 1000 mg/L
		Sulphate as SO ₄	APHA, 23 rd Edition 2017 Turbidimetric Method 4500 -SO ₄ ² E	1 mg/L to 400 mg/L
		Chlorine (Residual)	APHA, 23 rd Edition2017, Iodometric Method, 4500 CI B	0.2 mg/L to 4 mg/L
		Phosphate as PO₄-P	APHA, 23 rd Edition 2017, Stannous chloride method ,4500PD	0.01 mg/L to 1 mg/L
		Nitrogen Nitrate as NO ₃ -N	APHA, 23 rd Edition 2017 UV Spectrophotometric Method. 4500-NO₃B,	0.01 mg/L to 50 mg/L
		Nitrogen Nitrite as NO ₂ -N	APHA, 23 rd Edition 2017 Colorimetric Method 4500- NO ₂ B	0.01 mg/L to 1 mg/L
		Boron as B	APHA, 23 rd Edition 2017 Carmine Method 34500-B C	0.01 mg/L to 1 mg/L
		Fluoride as F	APHA, 23 rd Edition 2017 SPANDS Method 4500-F ⁻ D	0.1 mg/L to 2.0 mg/L
		Dissolved Oxygen	APHA, 23 rd Edition 2017 Azide Modification, 4500- O C	0.1 mg/L to 10.0 mg/L
		Sodium as Na	APHA, 23 rd Edition 2017 Flame-photometer Method	1 mg/L to 200 mg/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		T	3500 Na B	
		Potassium as K	APHA, 23 rd Edition 2017 Flame-photometer Method 3500 K B	1 mg/L to 50 mg/L
		Biochemical Oxygen Demand (BOD) 3 days 27 °C	IS 3025 (Part 44): 1993 (RA 2003)	1 mg/L to 50 mg/L
		Chemical Oxygen Demand (COD)	APHA, 23 rd Edition 2017, Open Reflux Method, 5220 B	1 mg/L to 100 mg/L
		Oil & Grease	APHA, 23 rd Edition 2017, Liquid-Liquid Partition Gravimetric Method 5520B	1 mg/L to 10 mg/L
		Total Kjeldahl Nitrogen as N	APHA, 23 rd Edition 2017, 4500-Norg-B.	01 mg/L to 100 mg/L
		Ammonical Nitrogen as NH ₃ -N	APHA, 23 rd Edition 2017 Phenate Method 4500- NH3-F	0.01 mg/L to 1.0 mg/L
		Fixed dissolved solids	APHA, 23 rd Edition 2017, 2540-E	1 mg/L to 2000 mg/L
3.	Surface Water	рН	APHA, 23 rd Edition 2017 Electrometric Method 4500-H ⁺ B	6.5 to 8.5
		Total Solids	APHA, 23 rd Edition 2017 Gravimetric Method 2540 B	01 mg/L to 2000 mg/L
		Total Dissolved Solid	APHA, 23 rd Edition 2017 Gravimetric Method 2540 C	01 mg/L to 2000 mg/L
		Total Suspended Solid	APHA, 23 rd Edition 2017 Gravimetric Method 2540 D	1 mg/L to 100 mg/L
		Specific Conductance	APHA, 23 rd Edition 2017 by conductivity meter , 2510 B	1 μmho/cm to 3000 μmho/cm

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Turbidity	APHA, 23 rd Edition 2017 Nephelometric Method, 2130 B	0.1 NTU to 10 NTU
		Alkalinity as CaCO ₃	APHA, 23 rd Edition 2017 Titrimetric Method 2320 B	1 mg/L to 1000 mg/L
		Total Hardness as CaCO ₃	APHA, 23 rd Edition 2017 EDTA Titrimetric Method 2340 C	1 mg/L to 1000 mg/L
		Calcium Hardness as CaCO ₃	APHA, 23 rd Edition 2017 EDTA Titrimetric Method 3500 CaB	1 mg/L to 500 mg/L
		Magnesium Hardness as CaCO ₃	APHA, 23 rd Edition 2017 Calculation Method 3500- Mg B	2 mg/L to 500 mg/L
		Chloride as Cl	APHA, 23 rd Edition 2017 Argentometric Method 4500-Cl ⁻ B	1 mg/L to 1000 mg/L
		Sulphate as SO ₄	APHA, 23 rd Edition 2017 Turbidimetric Method 4500 -SO ₄ ² E	1 mg/L to 400 mg/L
		Chlorine (Residual)	APHA, 23 rd Edition 2017 Iodometric Method, 4500 CI B	0.2 mg/L to 4 mg/L
		Phosphate as PO ₄ -P	APHA, 23 rd Edition 2017, Stannous chloride method, 4500PD	0.01 mg/L to 1 mg/L
		Nitrogen Nitrate as NO ₃ - N	APHA, 23 rd Edition 2017 UV Spectrophotometric Method. 4500-NO₃B	0.01 mg/L to 50 mg/L
		Nitrogen Nitrite as NO ₂ -N	APHA, 23 rd Edition 2017 Colorimetric Method 4500- NO ₂ B	0.01 mg/L to 1 mg/L
		Boron as B	APHA, 23 rd Edition 2017 Carmine Method 34500-B C	0.01 mg/L to1 mg/L

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SI.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
		Fluoride as F	APHA, 23 rd Edition 2017 SPANDS Method 4500-F D	0.1 mg/L to 2.0 mg/L
		Dissolved Oxygen	APHA, 23 rd Edition 2017 Azide Modification, 4500- O C	0.1 mg/L to 10.0 mg/L
		Sodium as Na	APHA, 23 rd Edition 2017 Flame-photometer Method 3500 Na B	1 mg/L to 200 mg/L
		Potassium as K	APHA, 23 rd Edition 2017 Flame-photometer Method 3500 K B	1 mg/L to 50 mg/L
		Biochemical Oxygen Demand (BOD) 3 days 27°C	IS 3025 (Part 44): 1993 (RA 2003)	1 mg/L to 50 mg/L
		Chemical Oxygen Demand (COD)	APHA, 23 rd Edition 2017, Open Reflux Method, 5220 B	1 mg/L to 100 mg/L
		Oil & Grease	APHA, 23 rd Edition 2017, Liquid-Liquid Partition Gravimetric Method 5520B	1 mg/L to 10 mg/L
		Total Kjeldahl Nitrogen as N	APHA, 23 rd Edition 2017, 4500-Norg-B.	01 mg/L to 100 mg/L
		Ammonical Nitrogen as NH ₃ -N	APHA, 23 rd Edition 2017 Phenate Method 4500- NH3-F	0.01 mg/L to 1.0 mg/L
		Fixed dissolved solids	APHA, 23 rd Edition 2017, 2540-E	1 mg/L to 2000 mg/L