

**Surface Water & Ground Water
(As per Scope of NABL accreditation)**

S. No.	Parameter	Test Method	Range of Testing/Limit of Detection	Uncertainty of Measurement ±
1.	Conductivity	APHA 2510 –B, 23 rd Ed. 2017	1 - 30000 µmhos/cm	280 ± 10 µmhos/cm
2	Total Dissolved Solids	APHA 2540 C, 23 rd Ed. 2017	5 - 18000 mg/l	350 ± 20.0 mg/l
3	Chemical Oxygen Demand	APHA 5220 B, 23 rd Ed. 2017	5 - 200 mg/l	96 ± 10 mg/l
4	Bio -Chemical Oxygen Demand	APHA 5210 B, 23 rd Ed. 2017, 4500 OC, (5 days at 20° C). IS- 3025 part 44:1993. BOD (3 days at 27°C).	1 - 100 mg/l	40 ± 8 mg/l
5	Chloride	APHA 4500 - Cl B, 23 rd Ed. 2017	5 - 600 mg/l	300 ± 15 mg/l
6	Phosphate - P	APHA 4500 –PD, 23 rd Ed. 2017	0.05 - 10 mg/l	0.3 ± 0.03 mg/l
7	Total Hardness As CaCO ₃	APHA 2340 – C 23 rd Ed. 2017	10 - 900 mg/l	150 ± 10.0 mg/l
8	Calcium	APHA 3500 – Ca B, 23 rd . 2017	2 - 200 mg/l	50 ± 10 mg/l
9	Magnesium	APHA 3500 – Mg B, 23 rd Ed. 2017	2 -200 mg/l	20 ± 3 mg/l
10	Fluoride	APHA 4500- F D, 23 rd Ed. 2017	0.2 - 20 mg/l	0.8 ± 0.1 mg/l
11	pH	APHA 4500 H ⁺ -B, 23 rd Ed. 2017	2 – 14	7.24 ± 0.18
12	NO ₂ -N	APHA 4500 – NO ₂ , B, 23 rd Ed. 2017	0.01 - 2 mg/l	0.06 ± 0.01 mg/l
13	NH ₃ -N	IS 3025(Part-34)- 1988, (First reprint April-1992)	0.2 - 20 mg/l	2.0 ± 0.2 mg/l

The other major non- NABL scope parameters includes:

Total Alkalinity, Nitrate, Boron, Sodium, Potassium, Hexavalent Chromium, Color, Turbidity etc.

Waste Water
(As per Scope of NABL accreditation)

S. No.	Parameter	Test Method	Range of Testing/Limit of Detection	Uncertainty of Measurement \pm
1.	Conductivity	APHA (23 rd Edition) 2510-B, 2017	1 - 40,000 μ mhos/cm	1404 \pm 18.17 μ mhos/cm
2	Total Suspended Solids	APHA (23 rd Edition) 2540 D, 2017	10 to 15000 mg/l	197 \pm 18.76 mg/l
3	Total solids	APHA (23 rd Edition) 2540 B, 2017	10 to 20000 mg/l	581 \pm 9.22 mg/l
4	Total Dissolved Solids	APHA (23 rd Edition) 2540 C, 2017	10 to 100000 mg/l	762 \pm 15 mg/l
5	Chemical Oxygen Demand	APHA (23 rd Edition) 5220 B, 2017	05 to 90000 mg/l	244.8 \pm 9.5 mg/l
6	Biochemical Oxygen Demand 5 Days at 20°C/3 Days at 27°C	APHA (23 rd Edition) 5210 B, 2017, 4500 OC,(5 days at 20°C), IS 3025 (Part 44): 1993 (3 days at 27°C)	1 to 60000 mg/l	166.8 \pm 14.31 mg/l
7	Chloride	APHA (23 rd Edition) 4500 CI B, 2017	5 to 2000 mg/l	100 \pm 8.2 mg/l
8	Phosphate - P	APHA (23 rd Edition) 4500-PD, 2017	0.05 to 10 mg/l	0.209 \pm 0.023 mg/l
9	Oil & Grease	APHA (23 rd Edition) 5520 B, 2017	5 to 200 mg/l	21.14 \pm 5.28 mg/l
10	pH	APHA (23 rd Edition) 4500 H ⁺ - B, 4-92 to 4-96: 2017	2 – 14	7.0 \pm 0.1
11	NH ₃ - N	APHA (23 rd Edition) 4500 NH ₃ – B & C, 2017	1 – 100 mg/l	78.2 \pm 3.9 mg/l
12	Cr ⁶⁺	APHA (23 rd Edition) 4500 Cr-B, 2017	0.1 – 10 mg/l	0.283 \pm 0.03 mg/l

The other major non- NABL scope parameters includes:

Sulphate, Nitrate, Total Hardness, Calcium, Magnesium, Potassium, Sodium, Fluoride, Color, MLSS, Phenol, Cyanide, TKN, Nitrite etc.

Soil & Solid Waste
(As per Scope of NABL accreditation)

S. No.	Parameter	Test Method	Range of Testing/Limit of Detection	Uncertainty of Measurement \pm
1.	pH	IS 2720 (Part 26) : 1987 (reaff. 2007)	2 to 14	7.5 \pm 0.2
2	Conductivity	IS 14767 : 2002	1 to 40000 μ mhos/cm	280 \pm 20 μ mhos/cm
3	Moisture	IS 2720 (Part II) : 1973 (reaff. 2007)	0.1 to 50 %	20 \pm 4.6 %
4	Organic matter	IS 2720 (Part 22) : 1972 (reaff. 2006)	1 to 20 %	5.8 \pm 3 %
5	Sodium (Exchangeable)	SOP No. CB/CL/SOP/S- 5 based on Soil Chemical Analysis by M.L. Jackson, 1967	10 to 1000mg/kg	150 \pm 15 mg/kg
6	Potassium (Exchangeable)	SOP No. CB/CL/SOP/S-6 based on Soil Chemical Analysis by M.L. Jackson, 1967	10 to 1000mg/kg	60 \pm 5 mg/kg
7	Calcium (Exchangeable)	SOP NO. CB/CL/SOP/07 based on Soil Chemical Analysis by M.L. Jackson, 1967	5 to 10000mg/kg	500 \pm 50 mg/kg
8	Magnesium (Exchangeable)	SOP NO. CB/CL/SOP/S-8 based on Soil Chemical Analysis by M.L. Jackson, 1967	5 to 5000mg/kg	300 \pm 30 mg/kg
9	Cation Exchange Capacity (CEC)	SOP No. CB/CL/SOP/S- 9 by Calculation only	1 to 30 %	10 \pm 0.5 %
10	Exchangeable Sodium Percent (ESP)	SOP No. CB/CL/SOP/S- 10 by Calculation only	1 to 30 %	10 \pm 0.5 %

The other major non- NABL scope parameters includes:

Chloride, Sulphate, CHNS, Loss of ignition (LOI), Total water soluble solids, Calorific value, TKN, Leachate of sample through toxicity. Characteristics leaching procedure (TCLP), leaching of samples for soluble thresh old limit concentration (STLC) etc.