

FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, First Floor, Sushant Tower, Sector – 56, Gurugram – 122011, Haryana, India.



CERTIFICATE OF ACCREDITATION (AS PER ISO/IEC 17025:2017)

This is to attest that

M/s "NORTHLAB INDIA PVT LTD."

Plot No. 1, SV Nagar, Perumalpattu,
Veppampattu (Tamil Nadu)-602024, India

Calibration Laboratory

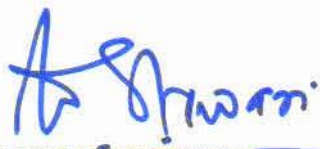
has demonstrated compliance with ISO/IEC Standard 17025:2017, General requirements for the competence of testing and calibration laboratories and supplementary criteria for calibration laboratories.

Certificate Number: CL-103

Issue Date: 09.10.2023

Valid Until: 08.10.2025

The certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard and the relevant requirements of FDAS. (for scope of accreditation visit website www.fdasindia.org).


DEVI SARAN TEWARI
Director

FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, First Floor, Sushant Tower, Sector – 56, Gurugram – 122011, Haryana, India.



SCOPE OF ACCREDITATION

(Annexure to Certificate of CL - 103)

Validity 09.10.2023 to 08.10.2025 Last Amended on

Chemical Calibration (Laboratory based)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard.	Range	Uncertainty in Measurement ($\pm$)*
1.	pH: pH Meter with Sensor	Direct Comparison to pH Standard Solution based on ASTM D 1293-99 (RA 2005)	4.0 pH 7.0 pH 10.0 pH	0.02 pH 0.02 pH 0.02 pH
2.	Conductivity: Conductivity Meter with Sensor	Direct Comparison to Conductivity Standard Solution based on ASTM D 1125-2014	1.3 μ S/cm 10 μ S/cm 75 μ S/cm 100 μ S/cm 1000 μ S/cm 1412 μ S/cm 5000 μ S/cm 10000 μ S/cm 12880 μ S/cm 100000 μ S/cm	3.9 % 1.01 % 5.03 % 2.11 % 4.68 % 0.33 % 1.01 % 0.40 % 1.01 % 1.09 %
3.	Total Dissolved Solids: TDS Meter	Direct Comparison to TDS Standard Solution based on ASTM D 5907-2018	67 mg/l (ppm) 300 mg/l (ppm) 665 mg/l (ppm) 941 mg/l (ppm) 3000 mg/l (ppm) 6661 mg/l (ppm) 66618 mg/l(ppm)	7.14 % 1.61 % 0.46 % 1.50 % 1.08 % 0.45 % 0.38 %
4.	Turbidity: Turbidity Meter	Direct Comparison to Turbidity Standard Solution based on ASTM D 7726-11 (2018)	0.5 NTU 100 NTU 1000 NTU	3.03 % 0.81 % 0.23 %
5.	Dissolved Oxygen: DO Meter with Sensor	Direct Comparison to Dissolved Oxygen Standard Solution based on ISO 5814- 2012	0 % 100 %	0.12 % 0.12 %

Jikendra Parmar
Dealing Officer

FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, First Floor, Sushant Tower, Sector – 56, Gurugram – 122011, Haryana, India.



SCOPE OF ACCREDITATION

(Annexure to Certificate of CL - 103)

Chemical Calibration (Laboratory based)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard.	Range	Uncertainty in Measurement ($\pm$)*
6.	Refractometer: Analog/Digital, Brix RI	Direct Comparison to BRIX Standard Solution based on ASTM D 3321-2019	2.5 °BRIX 15 °BRIX 40 °BRIX 1.46839 RI	0.06°BRIX 0.06°BRIX 0.06°BRIX 0.00007 RI
7.	Salt Tester: Digital Salinity Tester	Direct Comparison to Salinity Standard Solution based on Chapter 14 Volunteer Estuary Monitoring Manual, March 2006	5 ng/L 25 ng/L 45 ng/L	1.6 % 0.25 % 1.01 %
8.	Breath Alcohol: Breath Alcohol Tester	Direct Comparison to Breath Alcohol Standard Solution based on NHTSA Standard for Cal Units for Alcohol Tester (40 FR 36167) updated on 22/10/2012 DOT-NHTSA- 2012-Q063	0.02 g/dL 0.04 g/dL 0.08 g/dL 0.2 g/dL	1.21 % 1.21 % 1.21 % 1.21 %
9.	Oxygen Reduction Potential: ORP Meter with Sensor	Direct Comparison to Oxygen reduction Potential Standard Solution based on ASTM D 1498 -2014	86 mV 263 mV 475 mV	3.91 % 5 % 4.95 %
10.	Gases: a. Gas Detector	Direct Comparison to Standard Mixture Gas based on ASTM D 7833-20	Oxygen (O ₂) 0 % Oxygen (O ₂) 1 % Oxygen (O ₂) 20.8 % Oxygen (O ₂) 100 %	0.0089 % 0.013 % 0.23 % 3.02 %
	b. Gas Analyzer	Direct Comparison to Standard Mixture Gas based on ASTM D 7833-20	Carbon Dioxide (CO ₂) 0.05 % Carbon Dioxide (CO ₂) 10 % Carbon Dioxide (CO ₂) 100 %	0.00051 % 0.11 % 0.10 %

Jikendra Parmar
Dealing Officer

FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, First Floor, Sushant Tower, Sector – 56, Gurugram – 122011, Haryana, India.



SCOPE OF ACCREDITATION

(Annexure to Certificate of CL - 103)

Chemical Calibration (Laboratory based)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard.	Range	Uncertainty in Measurement ($\pm$)*
	c. Multi Gas Detector	Direct Comparison to Standard Mixture Gas based on ASTM D 7833-20	Carbon Monoxide (CO) 0.01 % Carbon Monoxide (CO) 0.1 % Hydrogen Sulphide (H ₂ S) 0.0015 % Hydrogen Sulphide (H ₂ S) 0.0025 %	0.000126 % 0.00045 % 0.00013 % 0.00012 %
	d. Flue Gas Analyzer	Direct Comparison to Standard Mixture Gas based on ASTM D 7833-20	Methane (CH ₄) 0.5 % (10% LEL)	0.58 %
	e. Stack Emission Analyzer	Direct Comparison to Standard Mixture Gas based on ASTM D 7833-20	Methane (CH ₄) 2.5 % (50% LEL) Propane (C ₃ H ₈) 0.21 % (10% LEL) Propane (C ₃ H ₈) 1.05 % (50% LEL) Nitric Oxide (NO) 0.0030 % Nitric Oxide (NO) 0.02% Nitrogen Dioxide (NO ₂) 0.01 % Sulphur Dioxide (SO ₂) 0.1 %	0.58 % 0.58 % 0.58 % 0.00021 % 0.00031 % 0.0002 % 0.00031 %

Jikendra Parmar
Dealing Officer

FEDERATION FOR DEVELOPMENT OF ACCREDITATION SERVICES

118-119, First Floor, Sushant Tower, Sector – 56, Gurugram – 122011, Haryana, India.



SCOPE OF ACCREDITATION

(Annexure to Certificate of CL - 103)

Chemical Calibration (At Site)

S. No.	Parameter	Calibration Method/ Procedure & Equipment used as Reference Standard.	Range	Uncertainty in Measurement ($\pm$)*
1.	Flame Photometer:	Direct Comparison to Standard Flame photometer based on IS 9497-1980 (Reaffirmed 1998)		
	a. Calcium		0 to 1000 mg/l (ppm)	± 0.53 %
	b. Sodium		0 to 160 mg/l (ppm)	± 2.76 %
	c. Potassium		0 to 1000 mg/l (ppm)	± 2.32 %
	d. Lithium		0 to 1000 mg/l (ppm)	± 0.77 %
	e. Barium		0 to 1000 mg/l (ppm)	± 0.78 %
2.	Elisa Reader: Absorbance	Direct Comparison to Elisa Reader- Absorbance Standard/Wavelength Standard based on WHO- Maintenance manual for laboratory equipment: Elisa Micro plate Reader Chapter 1	0.30 AU 1.50 AU 2.00 AU	± 0.004 AU ± 0.007 AU ± 0.008 AU
	Wavelength		240 nm to 640 nm	± 0.201 nm

*Expanded uncertainty expressed in coverage probability of approximately 95 % (coverage factor K=2)

Jikendra Parmar
Dealing Officer