	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 129
---	-----------------------------------	---

Accreditation No: LAB 129

Awarded to

**Resource Inspections Canada Incorporated Co.
(Construction Material Testing and Calibration Laboratory)**

Address 1:

**Office 44, Building 2126, Road 1529, Block 115, Hidd, Kingdom of Bahrain
(Construction Material Testing Laboratory)**

Address 2:

**Flat 1, Building 862, Road 3315, Block 333, Mahooz, Kingdom of Bahrain
(Calibration Laboratory)**

The scope of accreditation is in accordance with the standard specifications outlined in the following page(s) of this document. The accredited scope shall be visible and legible in areas such as customer service, sample-receiving section etc and shall not mislead its users.

The accreditation was first time granted on **27-12-2017** by Pakistan National Accreditation Council.

The laboratory complies with the requirements of **ISO/IEC 17025:2017**.

The accreditation requires regular surveillance, and is valid until **26-12-2020**.

The decision of accreditation made by Pakistan National Accreditation Council implies that the organization has been found to fulfill the requirements for accreditation within the scope.

The organization however, itself is responsible for the results of performed measurements/tests.

PAKISTAN NATIONAL ACCREDITATION COUNCIL

17-09-2020
Date

Sd.
Director General

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 129
---	-----------------------------------	---

Testing Laboratory.

Accreditation Scope of Resource Inspections Canada Incorporated Co.
Office 44, Building 2126, Road 1529, Block 115, Hidd, Kingdom of Bahrain

Permanent laboratory premises

Materials/Products tested	Testing field (e.g. environmental testing or mechanical testing)	Types of test/ Properties measured	Reference to standardized method (e.g. ISO 14577-1:2003)/ Internal method reference
Concrete	Construction (Civil) Material Testing	Sampling Fresh Concrete and Temperature	BS EN 12350-1
		Slump of Fresh Concrete	BS EN 12350-2
		Density of Fresh Concrete	BS EN 12350-6
		Air Content of Fresh Concrete by Pressure Method	BS EN 12350-7
		Making and Curing Concrete Test Specimens in the Field	BS EN 12390-2
		Dimension Requirements of Concrete Specimens	BS EN 12390-1
		Density of Hardened Concrete	BS EN 12390-7
		Specification for Water Storage Tanks Used in the Testing of Concretes	ASTM C 511
		Practice for Capping Cylindrical Concrete Specimens	ASTM C 617
		Compressive Strength of Concrete Specimens	BS EN 12390-3
Obtaining and Testing Drilled	BS EN 12504-1		

17-19-2020
Date

Sd.
Director



**ACCREDITATION
DOCUMENT**

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

Aggregate	Construction (Civil) Material Testing	Cores of Concrete	BS EN 12504-2
		Rebound Number of Hardened Concrete	
		Sampling of Aggregates	BS EN 932-1
		Reducing Samples of Aggregate to Testing Size	BS EN 932-2
		Aggregate Moisture Content	BS 812-109
		Particle Size Distribution	BS EN 933-1
		Clay Lumps and Friable Particles in Aggregates	ASTM C142
		Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C131
		Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C535
		Soundness of Aggregates	BS 812-121
Soil	Construction (Civil)	Particle Density and Water Absorption of Aggregate	BS EN 1097-6
		Elongation Index and Flakiness Index	BS EN 933-3 BS 812-105.1 BS 812-105.2
		Sand Equivalent Test	BS EN 933-8
			BS 1377-2 (3.2)

17-19-2020
Date

Sd.
Director



ACCREDITATION DOCUMENT

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

	Material Testing	<p>Water (Moisture) Content of Soil Oven Drying Method</p> <p>Particle-Size Analysis of Soils, Wet Sieving Method</p> <p>Particle-Size Analysis of Soils, Dry Sieving Method and Hydrometer Method</p> <p>Determination of Liquid Limit by Casagrande Apparatus Method and Plastic Limit and Plasticity Index</p> <p>Determination of Particle Density</p> <p>Classification of Soil</p> <p>Laboratory Compaction of Soil Using 2.5 kg and 4.5 kg Rammer</p> <p>CBR (California Bearing Ratio) of Laboratory-Compacted Soils</p> <p>In-situ Density Test by Nuclear Density Method</p> <p>In-situ Density Test by Sand Replacement Method</p> <p>Determination of Soil Liquid Limit by Cone Penetrometer Method</p> <p>Determination of Soil Linear Shrinkage</p> <p>Plate Load Test</p> <p>Particle Size Distribution</p>	<p>BS 1377-2 (9.2)</p> <p>BS 1377-2 (9.3 & 9.5)</p> <p>BS 1377-2 (4.5 & 5.0)</p> <p>BS 1377-2 (8.3)</p> <p>BS 5930</p> <p>BS 1377-4 (3.3, 3.4, 3.5, 3.6)</p> <p>BS 1377-4 (7.0)</p> <p>BS 1377-9 (2.5)</p> <p>BS 1377-9 (2.1 & 2.2)</p> <p>BS 1377-2 (4.3)</p> <p>BS 1377-2 (6.5)</p> <p>BS 1377-9 (4.1)</p> <p>BS 812-103.1</p>
--	------------------	--	--

17-19-2020
Date

Sd.
Director



**ACCREDITATION
DOCUMENT**

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

Asphalt	Construction (Civil) Material Testing	Sampling Bituminous Paving Mixtures	ASTM D 979
		Quantitative Extraction of Bitumen from Bituminous Paving Mixtures	ASTM D 2172
		Mechanical Size Analysis of Extracted Aggregate	ASTM D 5444
		Preparation of Bituminous Specimens using Marshall Apparatus	ASTM D 6926
		Marshall Stability and Flow of Bituminous Mixtures	ASTM D 6927
		Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures	ASTM D 2041
		Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures	ASTM D 2726
		Thickness or Height of Compacted Bituminous Paving Mixture Specimens	ASTM D 3549
		Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures	ASTM D 3203
		Estimating Application Rate of Bituminous Distributors Mixtures	ASTM D 2995
Aggregate	Construction (Civil) Material Testing	Specific Gravity and Absorption of Coarse Aggregate	ASTM C 127
		Specific Gravity and Absorption of Fine Aggregate	ASTM C 128

17-19-2020
Date

Sd.
Director



**ACCREDITATION
DOCUMENT**

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

Blocks / Masonry Units / Kerbs	Construction (Civil) Material Testing	Shell Content in Aggregate	BS 812 – 106
		Soundness of Aggregates by Use of Magnesium Sulfate	ASTM C 88
		Aggregate Crushing Value	BS 812 – 110
		Dimensions of Paving Block	BS EN 1338 ANEX C
		Tensile Splitting Strength Of Paving Block	BS EN 1338 ANEX F
		Water Absorption Of Paving Block	BS EN 1338 ANEX E
		Compressive Strength of Paving Block	BS 6717 – 1
		Net & Gross Dry Density Of Masonry Unit	BS EN 772-13
		Compressive Strength Of Concrete Masonry Unit	BS EN 772-1
		Dimensions Of Masonry Unit	BS EN 772-16
Pile	Construction (Civil) Material Testing	Dimensions Of Concrete Kerb	BS EN 1340 ANEX C
		Water Absorption Of Concrete Kerb	BS EN 1340 ANEX E
		Low Strain Impact Integrity Testing of Deep Foundations	ASTM D 5882
		Static Axial Compression Load Test for Deep Foundations - 3rd Party Witness	ASTM D 1143
		Water Absorption of Concrete	BS 1881-122

17-19-2020
Date

Sd.
Director



**ACCREDITATION
DOCUMENT**

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

Concrete	Construction (Civil) Material Testing	Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods	ASTM D 2950
Asphalt	Construction (Civil) Material Testing	Standard Practice for Sampling Compacted Asphalt Mixtures for Laboratory Testing	ASTM D 5361

17-19-2020
Date

Sd.
Director

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 129
---	-----------------------------------	---

Calibration Laboratory.

Accreditation scope of Resource Inspections Canada Incorporated Co.
(Calibration Laboratory)

Flat 1, Building 862, Road 3315, Block 333, Mahooz, Kingdom of Bahrain

Permanent laboratory premises

Calibration Area	Range	*Expanded Uncertainty (\pm)	Technique, Reference Standard, Equipment
Field of measurement: Dimensional			
Calipers (Dial, Digital & Vernier)	0.5 mm to 100 mm/0.001 mm 0.5 mm to 300 mm/0.01 mm 300 mm to 1000 mm/0.01 mm 1000 mm to 2000 mm/0.05 mm	1.0 μ m 5.1 μ m 5.22 μ m 25.1 μ m	BS/EN/ISO 13385-1. Gauge blocks
Plunger Type Indicators			
Dial	0.0002 to 25 mm/0.01 mm	6.0 μ m	BS 907, Dial Gauge Calibrator
Digital	0.0002 to 25 mm/0.001 mm	1.6 μ m	
Micrometer			
Plain Anvil & Digital	0.5 to 25 mm/0.001 mm 25 to 150 mm/0.001 mm 150 to 2000 mm/0.01 mm	0.60 μ m 0.70 μ m 5.5 μ m	BS/EN/ISO 3611, Gauge Blocks
Height Gauge	0.5 to 100 mm/0.001 mm 0.5 to 300 mm/0.01 mm	1.0 μ m 5.1 μ m 5.22 μ m 25.1 μ m	Gauge Blocks
Depth Gauge	0.5 to 100 mm/0.001 mm 0.5 to 300 mm/0.01 mm 300 to 1000 mm/0.01 mm 1000 to 2000 mm/0.05 mm	1.0 μ m 5.1 μ m 5.22 μ m 25.1 μ m	Gauge Blocks
Snap Gauges	0.5 to 500 mm	2.0 μ m	Gauge Blocks
Thickness Gauges	0.5 to 10 mm/0.001 mm 0.5 to 100 mm/0.01 mm	0.70 μ m 6.0 μ m	Gauge Blocks
Protractor (Bevel/Digital)	0.05 to 90°/0.05°	0.045°	Angle Gauge Block Set
Angle Gauge	0.05 to 90°/0.05°	0.045°	Angle Gauge Block Set

17-19-2020
Date

Sd.
Director

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 129
---	-----------------------------------	---

Field of measurement: Force			
Compression Machine	0 to 3000 kN/0.01 kN	0.13% of Reading	BS/EN/ISO 7500, Load Cell
Weighing Balance	0.001 g to 30 kg 30 kg to 500 kg	See Note	SASO 524, Weights, Class F1 Weights, Class M2
Torque Wrench	5 Nm to 50 Nm 50 Nm to 250 Nm 250 Nm to 500 Nm 500 Nm to 1000 Nm 1000 Nm to 3000 Nm	0.31 Nm 1.2 Nm 1.2 Nm 3.07 Nm 6.2 Nm	ISO 6789, Torque Wrench Calibrator & Transducer
Field of measurement: Pressure			
Vacuum Gauge	-1 bar to 0 bar/0.1 bar 0.1 inHg to 30 inHg/0.2 inHg	0.08 bar 0.12 inHg	BS/EN 837-1, Pressure Pump with Reference Gauge
Pressure Gauge	0.01 bar to 60 bar/0.01 bar 0.01 bar to 1400 bar/0.1 bar	0.0060 bar 0.16 bar	BS/EN837-1, Dead Weight Tester/ Reference Gauge
Pressure Transmitter	0.01 bar to 60 bar/0.01 bar 0.01 bar to 1400 bar/0.1 bar	0.0060 bar 0.16 bar	Dead Weight Tester, Reference Multimeter, Reference Gauge
Pressure Chart Recorder	-1 bar to 10 bar/0.1 bar 0.1 bar to 60 bar/0.1 bar 0.1 bar to 100 bar/0.2 bar 0.1 bar to 600 bar/1 bar 0.1 bar to 1400 bar/1 bar	0.080 bar 0.19 bar 0.15 bar 0.65 bar 0.73 bar	Pressure Pump with Reference Gauge
Safety Relief Valve	14.5 psi to 10,000 psi.	0.090 psi 2.5 psi	API 526 & API 527, Pressure with Reference Gauge
Field of measurement: Temperature			
Ovens	0.01 °C to 400 °C	0.31 °C	ASTM E145, RTDs, Temperature Calibrator
Thermometers (Dial & Digital)	-40 °C to 140 °C >140 °C to 650 °C >650 °C to 1200 °C	0.060 °C 0.13 °C 0.82 °C	ASME B40.200, RTD, Dry Block, Oil Bath, N-type, ASTM E 2877, Temperature Calibrator
Temperature Sensor (RTD & Thermocouple)	-40 °C to 140 °C >140 °C to 650 °C >650 °C to 1200 °C	0.060 °C 0.13 °C 0.82 °C	ASTM E 1137, Temperature Calibrator, Dry Block, Oil Bath.
Water Baths	0.01 °C to 90 °C	0.20 °C	ASTM E 77 & ASTM E 715, RTD, Temperature Calibrator
Furnaces	0.01 °C to 1200 °C	0.86 °C	ASTM E145, Reference Thermocouple, Temperature Calibrator
Autoclaves	0.01 °C to 150 °C	0.16 °C	RTDs, Temperature Calibrator

17-19-2020
Date

Sd.
Director

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 129
---	-----------------------------------	---

Incubator	10 °C to 100 °C	0.16 °C	RTDs, Temperature Calibrator
Hot Plates	0.01 °C to 300 °C	0.62 °C	Surface Probes, Temperature Calibrator
Freezer/Refrigerators	-80 °C to 100 °C	0.12 °C	RTDs, Temperature Calibrator
Temperature Transmitter	-40 °C to 140 °C >140°C to 650 °C >650 °C to 1200 °C	0.060 °C 0.13 °C 0.82 °C	RTDs, Dry Block, Oil Bath, Process Calibrator, Reference Multimeter
Temperature Recorder	-40 °C to 140 °C >140 °C to 650 °C >650 °C to 1200 °C	0.36 °C 0.97 °C 1.5 °C	RTDs, Dry Block, Oil Bath, Temperature Calibrator
Glass Thermometer	-40 °C to 250 °C	0.70 °C	RTDs, Oil Bath, Temperature Calibrator
Infrared Thermometer/Pyrometer	-40 °C to 550 °C	1.2 °C	Dry Block with Black Body Accessory, RTDs Thermocouple
Field of measurement: Electrical			
Holiday Detector	0.1 Vdc to 99.9 kVdc	0.12 kVdc	ASTM D5162, High Voltage Probe
DC Voltage – Generate	0.01 to 220 mV 220 mV to 2.2 V 2.2 to 11 V 11 to 22 V 22 to 220 V 220 to 1100 V	0.00054 mV 0.0024 mV 0.0084 mV 0.0254 mV 0.3221 mV 0.0017 V	Euramet CG15, Euramet CG11 Multifunction Calibrator.
DC Voltage – Measure	0.01 to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1000 V	0.46 μV 0.0016 mV 0.015 mV 0.23 mV 0.0013 V	Euramet CG15, Euramet CG11 Reference Multimeter – 8 ½ Digit
DC Current – Generate	0.01 to 220 μA 220 μA to 2.2 mA 2.2 to 220 mA 220 mA to 2.2 A 2.2 to 20.5 A 20.5 to 1000 A	0.0035 μA 0.028 μA 0.0035 mA 0.072 mA 0.072 mA 3.6 mA	Euramet CG15, Euramet CG11 Multifunction Calibrator. Current Coil
DC Current – Measure	0.01 to 100 μA 100 μA – 1 mA 1 to 10 mA 10 to 100mA 100 mA to 1A 1 to 20 A	0.00069 μA 0.0070 μA 0.043 μA 0.56 μA 0.014 mA 0.44 mA	Euramet CG15, Euramet CG11 Reference Multimeter – 8 ½ Digit
AC Voltage – Generate	Frequency		Euramet CG15, Euramet CG11

17-19-2020

Date

Sd.

Director



ACCREDITATION DOCUMENT

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

<p>1 mV to 2.2 mV >2.2 mV to 22 mV >22 mV to 220 mV >220 mV to 2.2 V >2.2 V to 22 V >22 V to 220 V</p> <p>>220 V to 1100 V</p>	<p>10Hz to 20 Hz >20 Hz to 40 Hz >40 Hz to 20 kHz >20 kHz to 50 kHz >50 kHz to 100 kHz >100 kHz to 300 kHz >300 kHz to 500 kHz >500 kHz to 1 MHz</p> <p>15 Hz to 50 Hz >50 Hz to 1kHz</p>	<p>0.00062 mV 0.0025 mV 0.0069 mV 0.051 mV 0.43 mV 0.0053 V</p> <p>0.019 V</p>	<p>Multifunction Calibrator.</p>
<p>Ac Voltage – Measure 0.1 mV to 100mV</p> <p>100 mV to 1 V >1 V to 10 V >10 V to 100V</p> <p>>100V to 1000V</p>	<p>1Hz to 20 Hz 20 to 40 Hz 40to 100 Hz 100 Hz to 2 kHz 2kHz to 10 kHz 10 to 30 kHz 30 to 100 kHz</p> <p>1Hz to 20 Hz 20 to 40 Hz 40to 100 Hz 100 Hz to 2 kHz 2kHz to 10 kHz 10 to 30 kHz 30 to 100 kHz 300 kHz to 1Mhz</p> <p>1 Hz to 10 Hz 10 Hz to 40 Hz 40 Hz to 10 kHz 10 kHz to 30 kHz 30 kHz to 100 kHz</p>	<p>0.0044 mV</p> <p>0.022 mV 0.23 mV 0.0036 V</p> <p>0.050 V</p>	<p>Euramet CG15, Euramet CG11</p> <p>Reference Multimeter – 8 ½ Digit</p>
<p>AC Current – Generate</p> <p>1µA to 220 µA >220 µA to 2.2 mA >2.2 mA to 220 mA >220 mA to 2.2 A</p> <p>2.2 A to 20 A 20 A to 1000 A</p>	<p>10 to 20 Hz 20 to 40 Hz 40 Hz to 1kHz 1kHz to 5 kHz 5 kHz to 10 kHz</p> <p>20 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz</p>	<p>0.0084 µA 0.085 µA 0.011 mA 0.13 mA</p> <p>0.13 mA 6.5 mA</p>	<p>Euramet CG15, Euramet CG11</p> <p>Multifunction Calibrator. Current Coil</p>

17-19-2020
Date

Sd.
Director



ACCREDITATION DOCUMENT

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

AC Current – Measure			Euramet CG15, Euramet CG11
1 μ A to 100 μ A >100 μ A to 1 mA >1 mA to 10 mA	1 Hz to 10 Hz 10 Hz to 10kHz 10 kHz to 30 kHz 30 kHz to 100kHz	0.0066 μ A 0.070 μ A 0.33 μ A	Reference Multimeter – 8 ½ Digit
>10 mA to 100 mA	1 Hz to 10 Hz 10 Hz to 10 KHz 10 kHz to 30 kHz	0.0026 mA	
>100 mA to 1A	1 Hz to 10 Hz 10 Hz to 10 KHz 10 kHz to 30 kHz	0.047 mA	
>1 to 20 A	1 Hz to 10 Hz 10 Hz to 10 KHz	0.55 mA	
Resistance - Generate	0.01 Ω to 1 k Ω >1 k Ω to 10 k Ω >10 k Ω to 100 k Ω >100 k Ω to 1 M Ω >1 M Ω to 10 M Ω >10 M Ω to 100 M Ω	0.0016 Ω 0.017 Ω 0.17 Ω 0.0039 k Ω 0.085 k Ω 0.0038 M Ω	Euramet CG15, Euramet CG11 Multifunction Calibrator Decade Resistance Boxes
Resistance - Measure	0.01 Ω to 1 Ω >1 Ω to 10 Ω >10 Ω to 100 Ω >100 Ω to 1 k Ω >1 k Ω to 10 k Ω >10 k Ω to 100 k Ω >100 k Ω to 1 M Ω >1 M Ω to 10 M Ω >10 M Ω to 100 M Ω	0.0030 m Ω 0.026 m Ω 0.23 m Ω 2.2 m Ω 0.022 Ω 0.29 Ω 5.7 Ω 0.12 k Ω 4.4 k Ω	Euramet CG15, Euramet CG11 Reference Multimeter
Capacitance - Generate	1 pF to 1 μ F >1 μ F to 100 μ F >100 μ F to 1 mF >1 mF to 100mF	0.64 % of the reading 0.040 % of the reading 0.13 % of the reading 1.040 % of the reading	Euramet CG15, Euramet CG11 Decade Capacitance Boxes
Thermocouples – Generate and Measure			Euramet CG15, Euramet CG11
Type B	600 $^{\circ}$ C to 1820 $^{\circ}$ C	Generate: 0.12 $^{\circ}$ C Measure: 0.18 $^{\circ}$ C	Temperature Calibrator
Type C	0.1 $^{\circ}$ C to 2316 $^{\circ}$ C	Generate: 0.12 $^{\circ}$ C	

17-19-2020

Date

Sd.

Director



ACCREDITATION DOCUMENT

F-06/02
Issue Date: 18/08/2020
Rev. No: 09
LAB 129

Type E	-250 °C to 1000 °C	Measure: 0.18 °C Generate: 0.097 °C Measure: 0.18 °C	
Type J	-210 °C to 1200 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type K	-200 °C to 1372 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type N	-200 °C to 1300 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type R	0.1 °C to 1767 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type S	0.1 °C to 1767 °C	Generate: 0.12 °C Measure: 0.18 °C	
Type T	-250 °C to 400 °C	Generate: 0.097 °C Measure: 0.18 °C	
Type U	-200 °C to 600 °C	Generate: 0.097 °C Measure: 0.18 °C	
Type L	-200 °C to 900 °C	Generate: 0.097 °C Measure: 0.18 °C	
RTD – Generate			Euramet CG15, Euramet CG11
Pt 385, 100 Ω	-200 °C to 800 °C	0.012 °C	Temperature Calibrator
Pt 385, 200 Ω	-200 °C to 630 °C	0.012 °C	
Pt 385, 500 Ω	-200 °C to 630 °C	0.012 °C	
Pt 385, 1000 Ω	-200 °C to 630 °C	0.012 °C	
Field of measurement: Sound & Acoustic			
Sound Level Meter	94 dB – 114 dB	0.31 dB	ANSI s1.4, Acoustic Calibrator
Field of measurement: Vibration			
Vibration Meter	1 to 20 m/s ²	1.4 m/s ²	ISO 2954 Vibration Calibrator
Field of measurement: Speed			
Centrifuge	0.0 rpm to 999 rpm 1000 to 99,999 rpm	0.90 rpm 9.0 rpm	Reference Tachometer
Field of measurement: Chemical			
pH Meter	4 pH, 7 pH, & 10 pH	0.020 pH	Reference Solutions

17-19-2020

Date

Sd.

Director

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 129
---	-----------------------------------	---

Conductivity Meter	1413 $\mu\text{S/cm}$ 12880 $\mu\text{S/cm}$	0.34 % of reading 0.11 % of reading	Reference Solutions
TDS Meter	491 mg/L	3.0 mg/L	Reference Solutions
Multi Gas Detector	Methane: 50% LEL Oxygen: 18%, 20.9% Hydrogen Sulphide: 25 ppm Carbon Monoxide: 100 ppm	5.030 % of reading	Span Calibration Gas

Field of measurement: Environmental

Thermo-hygrometer/ Environmental Meter/ Temperature and Humidity Meter	Temperature -10 °C to 70 °C Humidity 10 %RH to 80 %RH	0.050 °C 0.60 %RH	Temperature and Humidity Generator and Chamber
Dew-point Meter	-10 °C to 70 °C	0.050 °C	Temperature and Humidity Generator and Chamber

Field of Measurement: Hardness

Hardness Testing Machine	HRA HRB HRC HR15N HR30N HR45N HB3000 HB500 HB143 HV190 HV208 HV524 HV720 HV813	0.82 HRA 0.83 HRB 0.84 HRC 0.78 HR 0.82 HR 0.77 HR 4.2 HB 1.45 HB 4.30 HB 2.70 HV 2.90 HV 6.50 HV 14.001 HV 5.20 HV	ASTM E-18 ASTM E-10 Standard Test Blocks
-----------------------------	---	--	--

Field of Measurement: Nuclear

Nuclear Density Gauge	Density : 1120 to 2723 kg/m^3	0.95 kg/m^3	ASTM D 6938 Nuclear Validator
-----------------------	---	----------------------	----------------------------------

Notes:


Calibration Parameters are performed primarily onsite at customers location. The uncertainty of scale or balance calibration is highly dependant on local conditions, such as scale resolution and sensitivity, scale cleanliness, local gravity, temperature and humidity, dust, vibration etc. Therefore, any statement of uncertainty is misleading. The class of the best weights used by the laboratory is shown technique column. Use of weights in combination, whether in the same class or different classes, will increase measurement uncertainty resulting from the additive effect of weight tolerances, as defined in ASTM E 617

*** Expanded Uncertainty:**

- Expanded Uncertainty is the measurement uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of $k = 2$. This measurement uncertainty is a value for which the laboratory has been accredited using the procedure that was the subject of assessment. In certificates issued under its accreditation scope an

17-19-2020
Date

Sd.
Director

	ACCREDITATION DOCUMENT	F-06/02 Issue Date: 18/08/2020 Rev. No: 09 LAB 129
---	-----------------------------------	---

accredited laboratory is not permitted to quote an uncertainty that is smaller than the published uncertainty for respective ranges as given above.

17-19-2020
Date

Sd.
Director