

Certificate of Accreditation

لونستار للخدمات الفنية و الصناعية ذ م م (NAL 046)

المصفح - مدينة ابوظبي، الإمارات العربية المتحدة

حاصل على الإعتتماد في الفحوصات المذكورة في وثيقة المجال المرفقة وفقاً للمواصفة الدولية ISO/IEC 17025

Lonestar Technical & Industrial Services LLC (NAL 046)

Al Mussafah Industrial City of Abu Dhabi - Abu Dhabi, UAE

Accredited according to the ISO/IEC 17025 Standard to undertake tests as specified in the attached Accreditation Scope



عمر أحمد صويغ السويدي

وكيل وزارة الصناعة والتكنولوجيا المتقدمة

Accredited on	2021/09/15	تاريخ منح الإعتتماد
Expires on	2024/09/14	تاريخ الإنتهاء

Accreditation in accordance to the ISO/IEC 17025:2017 Standard "General requirements for the competence of testing and calibration laboratories" and the relevant ENAS and ILAC requirements.

This certificate is invalid without the attached scope of accreditation, which subjected to annual surveillances as per ENAS procedure. Certificate can be updated or re-issued until the expiry date defined above. The validity of the certificate is subjected to continuous compliance with the requirements of the accreditation system. The lab is responsible for the results of its testing.

Initial Accreditation Date: 15/05/2012

1 وفقاً لمتطلبات المواصفة الدولية ISO/IEC 17025:2017 "المتطلبات العامة لكفاءة مختبرات الفحص والمعايرة" والمتطلبات ذات العلاقة الخاصة بنظام الإعتتماد الوطني الإماراتي ENAS والمنظمة الدولية لاعتماد المختبرات ILAC.

مجال الاعتماد جزء أساسي من هذه الشهادة حيث تخضع مجالات الاعتماد المذكورة في الوثيقة المرفقة لعمليات متابعة لاحقة من قبل نظام الإعتتماد الوطني الإماراتي ENAS. وتعتبر هذه الشهادة صالحة وقابلة للتحديث وإعادة الاصدار حتى تاريخ الانتهاء المدون اعلاه شريطة استمرار المختبر المذكور اعلاه في تطبيق متطلبات نظام الاعتماد سالف الذكر. يتحمل المختبر مسؤولية نتائج الفحص الصادرة عنه.

تاريخ منح الإعتتماد لأول مرة: 2012/05/15

ص.ب 2166 P.O.BOX - أبوظبي، الإمارات العربية المتحدة ABU DHABI, UNITED ARAB EMIRATES

ص.ب 48666 P.O.BOX - دبي، الإمارات العربية المتحدة DUBAI, UNITED ARAB EMIRATES

مركز الإتصال 600 565554 CALL CENTER

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Accreditation Scope

Lonestar Technical & Industrial Services L.L.C, NAL 046

Testing Laboratory (ISO/IEC 17025:2017)

Industrial city of Abu Dhabi (ICAD), Abu Dhabi, UAE

Issue Date: 15-09-2021

Expiry Date: 14-09-2024

Issue No.: 09

Testing Field	Materials/ Products tested	Type of test/ Test parameter/ Properties measured/Range of measurement	Test Method (Standard, Internal Procedure, Technique)	Permanent lab (P) / Client-site (S)
Construction Materials (Physical Tests)	Soil	Determination of Dry Density-Moisture Content Relationship Using 4.5 kg Rammer for Coarse and medium size Particles	BS 1377-4:1990, AMD 13925-2002, Cl. 3.5 & 3.6	P
		Determination of In-situ Density by Sand Replacement Method.	BS 1377-9:1990, Cl. 2.2	
		Determination of California Bearing Ratio (CBR)	BS 1377-4:1990, AMD 13925-2002 Cl. 7.2.3	
		Determination of water content	*BS 1377-2:1990 Cl. 3.2	
		Density and unit weight of soil in place by sand cone method	ASTM D1556:2015	
		Determination of California Bearing Ratio (CBR)	ASTM D1883:2016	
		Density/moisture content relationship	ASTM D 1557-12	
		Sampling	ASTM D75 / D75M:2019	
Construction Materials (Physical Tests)	Hardened Concrete	Determination of Compressive strength of concrete Cubes	*BS 1881-116:1983 - AMD 6720 :1991	P
		Determination of density of hardened concrete	*BS 1881-114:1983 - AMD 6721:1991	

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Construction Materials (Physical Tests)	Hardened Concrete	Method of normal curing of test specimens (20°C method)	*BS 1881-111:1983 - AMD. 9387:1997	P
		Determination of Compressive strength of Hardened Concrete	BS EN 12390-3:2019	
		Determination of density of hardened concrete	BS EN 12390-7:2019	
		Making and curing specimens for strength tests	BS EN 12390-2:2019	
		Shape, dimensions and other requirements for specimens and molds	BS EN 12390-1:2012	
		Determination of Depth of Penetration of Water Under Pressure in Hardened Concrete	BS EN 12390-8:2019	
		Electrical Indication of concretes Ability to Resist Chloride Ion Penetration	ASTM C 1202:2019	
		Determination of Water Absorption of Hardened Concrete	BS 1881-122:2011	

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Construction Materials (Physical Tests)	Aggregates	Determination of Particle Size Distribution (Wet and dry Sieving)	BS 812-103.1:1985 Cl. 7.2 & 7.3	P
		Density, Relative Density (specific gravity) and Absorption of Coarse Aggregates	ASTM C 127:2015	
		Determination of particle shape, Flakiness index	BS EN 933-3-2012	
		Determination of Elongation Index of Coarse Aggregates	BS 812-105:1990, Section 105.2	P
		Determination of Aggregates Crushing value	BS 812-110:1990	
		Soundness of Aggregates by Use of Sodium Sulfate & Magnesium Sulfate	ASTM C88/ C 88 M-2018	
		Percentage of Fine Clay, Silt and Dust	BS EN 933-1:2012	
		Clay Lumps and Friable Particles	ASTM C142 / C142M-17	
		Determination of Particle Density & Water Absorption	BS 812-2:1995, Clause 5	
		Ten Percent Fines Value	BS 812-111:1990	

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Construction Materials (Physical Tests)	Aggregates	Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	ASTM C131 / C131M-2020	P
		Sieve Analysis of Fine and Coarse Aggregates	ASTM C136:2014	
	Asphalt	Asphalt Content of Hot-Mix Asphalt by Ignition Method	ASTM D6307-2019	P
Geotechnical Testing	Soil	Standard Penetration Test Determination of the penetration resistance using the split-barrel sampler (Standard penetration test - SPT)	*BS 1377-9:1990; AMD 8264-1995 Cl.3.3	S
		Soil Sampling Obtaining disturbed samples from boring tools & excavating equipment	BS 5930:2015 Clause 25.3	S
		Soil Sampling Open-tube sampling techniques	BS 5930:2015 Clause 25.4	S
	Rock	Rock Sampling Rotary core sampling techniques	BS 5930:2015 Sec. 4 Cl. 24.11 & 25.7	S
		Rock Quality Designation & Rock Core Recovery	BS 5930:2015, Section 6 Clause:36	P/S

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Geotechnical Testing	Soil & Rock	Soil and Rock description	BS 5930:2015; Section 6, CI 32 & CI 36	P/S
	Ground Water	Ground water sampling	BS 5930:2015 Section 4 Clause:26	S
	Ground Water	Ground Water Level Measurements	BS 5930:2015 Section 8 Clause 52 (Clause 52.5 Standpipe Piezometer)	S
	Soil	Determination of Particle Size Distribution	BS EN ISO 17892-4:2016, Clauses 5.2	P
	Soil	Hydrometer Sedimentation by the hydrometer method	BS EN ISO 17892-4:2016, Clauses 5.3	
	Soil	Liquid Limit, plastic Limit And Plasticity Index	ASTM D4318- 17e1	
	Soil	Liquid Limit, plastic Limit and Plasticity Index	BS EN ISO 17892-12:2018, Clauses 5.3,5.5 & 6.5	
	Soil	Determination of water content	BS EN ISO 17892-1-2014	
	Soil & Rock	Natural Water Content Determination of Water (Moisture) Content of Soil and Rock by Mass	ASTM D 2216-2019	

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Geotechnical Testing	Rock	Preparing Rock Core Specimens and Determining Dimensional and Shape Tolerances	ASTM D4543-2019	P
		Compressive Strength of Intact Rock Core Specimens	ASTM D7012-2014 e1, Method C	
	Reporting	Reporting	BS 5930:2015: Section 10, Cl. 63	
Construction Materials (Physical Tests)	Tensile Properties	Steel for the Reinforcement of Concrete: Weldable Reinforcing Steel : Bar, Coil and Decoiled Product : Specification Tensile Properties	BS 4449:2005+A3 :2016, Cl. 7.2.3	P
		Steel for the reinforcement and prestressing of concrete. Test methods. Part 1 : Reinforcing bars, wire rod and wire	BS EN ISO 15630-1:2019, Cl. 5	
		Metallic materials. Tensile testing. Method of test at room temperature	BS EN ISO 6892-1:2019	
	Bend performance	Steel for the reinforcement of concrete. Weldable reinforcing steel. Bar, coil and Decoiled product. Specification	BS 4449: 2005+A3 :2016, Cl. 7.2.5	P

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Construction Materials (Physical Tests)	Bend performance	Steel for the reinforcement and prestressing of concrete. Test methods. Part 1: Reinforcing bars, wire rod and wire	BS EN ISO 15630-1:2019, Cl. 7	P
Deep Foundation	Pile Integrity	Low Strain Impact Integrity Testing of Deep Foundations	ASTM D5882-16	P/S
Chemical	Aggregates	Organic Impurities	CHM-SOP- 273 based on ASTM C40 / C40M-20	P
		Acid Soluble Chlorides as Cl	CHM-SOP- 274 based on BSEN 1744- Part 5 2006.	
		Acid Soluble Sulphates as SO ₃	CHM-SOP- 252 based on BSEN 1744-1 2009 + A1 2012.	
	Water / Waste water / Seawater / Ground water / Potable water	pH	CHM-SOP-119 B, CHM-SOP-119 C & CHM-SOP 119 D based on APHA-AWAA-WEP-23 rd Ed 2017 Method 4500 H+ B.	
		Oil & Grease	CHM-SOP-30E & CHM-SOP 30F based on APHA-AWAA-WEP-23 rd Ed 2017 Method 5520 B	
		Total Dissolved Solids at 180° C	CHM-SOP-068C& CHM-SOP-068D based on APHA-AWAA-WEP-23 rd Ed 2017 Method 2540 C	
		Total Suspended Solids at 103°C - 105 °C	CHM-SOP-047D based on APHA-AWAA-WEP-23 rd Ed 2017 Method 2540 D	
	Water / Waste water / Natural Waters	Chemical Oxygen Demand	CHM-SOP-019 D based on APHA-AWAA-WEP-23 rd Ed 2017 Method 5220 B	
		Biochemical Oxygen Demand (5 days Incubation @ 20°C)	CHM-SOP-020 D based on APHA-AWAA-WEP-23 rd Ed 2017 Method 5210 B	

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Chemical	Water / Waste water / Seawater /Ground water / Potable water	Chlorides	CHM-SOP-017 C & CHM-SOP-017 D based on APHA-AWAA-WEP-23 rd Ed 2017 Method 4500 Cl B	P
		Sulphates as SO ₄	CHM-SOP-004D & CHM-SOP-004C based on APHA-AWAA-WEP-23 rd Ed 2017 Method SO4-2E	
		Metals: Cd, Cr, Cu, Pb, Ni, Zn, Hg, Ca, Mg, Mo, Na, K, Ba, Be, Al, Si, Se, V, Ag, Mn, Fe, Co.	CHM-SOP-79 E based on APHA-AWAA-WEP-23 rd Ed 2017 Method 3120 B CHM-SOP-076 E Based on APHA-AWAA-WEP-23 rd Ed 2017 Method 3112 B (for Hg)	
	Soil	Metals: Al, Ba, Cd, Ca, Cr, Cu, Co, Fe, Pb, Mg, Mn, Mo, Ni, K, Ag, Na, V, Zn, Hg, As, Be, Se, Ti	CHM-SOP-079 D based on US EPA SW 846/3010A US EPA CE 81-1-1981, US EPA SW 846/6010 B, CHM-SOP-076 C based on US EPA SW 846/7471 A (for Hg)	

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Chemical	Soil	pH	CHM-SOP-250 based BS 1377-3:2018 CI 12	P
		Water Soluble Chlorides	CHM-SOP-243 based on BS 1377-3:2018 CI 9.2 (Volhard's method)	
		Acid Soluble Chlorides	CHM-SOP-244 based on BS 1377-3:2018 CI 9.3	
		Acid Soluble Sulphates as SO ₄	CHM-SOP-245 based on BS 1377-3:2018 CI 7.2,7.6,7.9	
		Water Soluble Sulphates as SO ₄	CHM-SOP-246 based on BS 1377-3:2018 CI 7.2, 7.3,7.6	
	Ground Water	Sulphate as SO ₄	CHM-SOP-248 based on BS 1377-3:2018 CI 7.2, 7.6, 7.8	
		Chloride	CHM-SOP-247 based on BS 1377-3:2018 CI 9.2	
		pH	CHM-SOP-249 based on BS 1377-3:2018 CI 12	
	Low Alloy Steel	Low Alloy Steel: C, Si, Mn, P, S, Cr, Mo, Ni, Al, Cu, V, Nb, Ti, N	Documented In-house method CHM-SOP-117	
	High Alloy Steel	High Alloy Steel C, Si, Mn, P, S, Cr, Mo, Ni, Al, Cu, V, N	Documented In-house method CHM-SOP-138	

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Environmental	Environmental Air	PM 10	CHM-SOP-257 based on MASA-501:2016 (3 rd edition)	P
		TSP	CHM-SOP-257 based on MASA-501:2016 (3 rd edition)	
		SO ₂	CHM-SOP-258 based on MASA-704 A:2016 (3 rd edition)	
		NO _x	CHM-SOP-162 based one MASA-406:2016 / Federal Register Vol. 36: No 84: title 42 chapter :IV:1971	
	Stack Emissions	PM	CHM-SOP-170 based one US EPA Method # 5 and 17	
		CO	CHM-SOP 188 based on US EPA CTM 030 / 034:1997	
		NO _x	CHM-SOP 188 based on US EPA CTM 030 / 034:1997	
		SO ₂	CHM-SOP 188 based one US EPA # 6C:1997	
		NO ₂	CHM-SOP 188 based on US EPA CTM 030 / 034:1997	
	Environmental Noise	Noise	CHM-SOP-255 based on ISO 1996-2:2017 Acoustic Part 2 Cl:7.5	
END				

* Standards are superseded / withdrawn / replaced.