

## **USACE-Certified Laboratory**

#### **Truth Land Engineering Services (TLES)**

Lab ID: LCP-033

Issue date: Oct 1<sup>st</sup>, 2020 Expiry date: Sept 30<sup>th</sup>, 2021

This letter confirms the completion of inspection and certification for the TLES CMT Lab, which is located in front of Loqman Hakim Hospital, between Char Rahi Shahid and Dehbori, District #3, Kabul, Afghanistan. This laboratory should now be considered as **USACE-Certified for a period of 12-months** from the date of this letter. This laboratory should now be considered as certified for use by the US Army Corps of Engineers Transatlantic Afghanistan District (USACE TAA) and other clients, for all tests listed in Table 1 to Table 3, as attached to this letter. This certification will be included with records that are maintained at the ABA and USACE TAA Headquarters in Bagram Airbase, Afghanistan. Retaining the certification will require yearly inspections by the ABA. This certification is also contingent upon the following conditions:

- A. Continued employment of the below individual while without his oversight, the laboratory will require recertification:
  - a. Sayed Ali Hashemi the laboratory manager;
- B. If the calibration certificates of equipments expire or become invalid as per the relevant standard;
- C. If the laboratory is moved to a new location, it will require recertification; and
- D. If the laboratory fails to comply by the approved lab quality management plan, safety standards, and other criteria set forth in the most up-to-date ABA lab certification manual, the lab certification may be suspended.

For verification and good standing of this certification please check our online directory of laboratories at <a href="http://aba.af/lcp\_directory.php">http://aba.af/lcp\_directory.php</a>. The inspection and certification process for TLES adhered to procedures outlined by the Materials Testing Center (MTC), which is located at the Geotechnical and Structures Laboratory (GSL), U.S. Army Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi, USA. The MTC is the USACE-authorized agency for certifying laboratories for use in quality control testing for USACE construction projects. To facilitate construction in Afghanistan, the USACE TAA has authorized the ABA to conduct laboratory certifications with strict adherence to MTC protocol. Qualifications of the authors for conducting these certifications include: 12 years of laboratory experience, 12 years of teaching classes on construction materials, and six years of teaching university-level construction classes.

Certified to perform 62 tests, as shown on attached sheets and summarized as:

- Table 1: 29 Table 2: 16
- Table 2: 16

Regards,





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### **TLES CMT Laboratory Certified Tests**

### Table 1. List of Soil Tests

No	Test Method	Test Procedure Title
1	ASTM D4318	Standard Test Method for Determining the Liquid & Plastic Limits & Plasticity Index of soils
2	AASHTO T224	Standard Method of Test for for Correction for Coarse Particles in the Soil Compaction Test
	ASTM D421	Standard practice for preparation of soil sample for particle size Analysis and Determination of soil constants
3		
4	ASTM D422	Standard test Method for Particle-Size Analysis of soil Standard Test Methods for Laboratory Compaction Characteristics of Soil
5	ASTM D698	Using Standard Effort
6	ASTM D854	Standard Test Methods for Specific Gravity of Soils Solids by Water pycnometer
7	ASTM D1140	Standard Test Methods For Amount of Material in soil Finer than No.200(75-µm)Sieve
8	ASTM D1556	Standard Test Methods for Density & Unit Weight of Soil in place by Sand
9	ASTM D1557	Cone Method Standard Test Methods for Laboratory Compaction Characteristics of soil
		using Modified Effort
10	ASTM D1883	Standard Test Methods for CBR (California Bearing Ratio) of Laboratory- Compacted Soils
11	ASTM D2166	Standard Test Method for Unconfined Compressive Strength of Cohesive Soils
12	ASTM D2216	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
13	ASTM D2487	Standard Practice for Classification of Soils for Engineering purposes(Unified
14	ASTM D2488	Soil Classification System) Standard Practice for Description and Identification of Soils (Visual- Manual
15	ASTM D4718	Procedure) Standard Practice for Correction of Unit Weight and Water Content for Soils
16	ASTM D4959	Containing Oversize Particles Standard Test Method for Determination of Water (Moisture) Content of Soil by Direct Heating
17	ASTM D6026	Standard Practice for Using Significant Digits in Geotechnical Data
18	ASTMD1586	Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils
19	ASTM D1587	Standard Practice for Thin-Walled Tube Sampling of Soils for Geotechnical Purposes
20	ASTM D2113	Standard Practice for Rock Core Drilling and Sampling of Rock for Site Investigation
21	ASTM D2435	Standard Test Methods for One-Dimensional Consolidation Properties of Soils Using Incremental Loading
22	ASTM D3080	Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions
23	ASTM D4221	Standard Test Method for Dispersive Characteristics of Clay Soil of Double Hydrometer

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24	ASTM D6032	Standard Test Method for Determining Rock Quality Designation (RQD) of Rock Core
25	ASTM D5333	Standard Test Method for Measuring of Collapse Potential of Soils
26	ASTM D2434	Standard Test Method for Permeability of Granular Soils (Constant Head)
27	ASTM D4977	Standard Test Method for Field Determination of Water (Moisture) Content of Soil by the Calcium Carbide Gas Pressure Tester
28	ASTM D5079	Standard Practice for Preserving and Transporting Rock Core Samples
29	ASTM D4647	Standard Test Method for Identification and Classification of Dispersive Cay Soils by Pinhole Test

# Table 2. List of Aggregate (Fine and Course) Tests

	Soils by Pinhole Test
2. List of Aggregate	e (Fine and Course) Tests
<b>Test Method</b>	Test Procedure Title
ASTM C29	Standard Test Method for Bulk Density (Unit Weight) and Void المريدية المريدي
ASTM C70	Standard Test Method for Surface Moisture in Fine Aggregate
ATSM C88	Standard Test Method for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C117	Standard Test Method for Material Finer than 75 $\mu m$ (No. 200) Sieve in Mineral Aggregates by Washing
ASTM C127	Standard Test Method for Density, Relative (Specific Gravity) ,and Absorption in Coarse Aggregate
ASTM C128	Standard Test Method for Density, Relative (Specific Gravity), and Absorption of Fine Aggregate
ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
ASTM C535	Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C566	Standard Test Method for Total Evaporation Moisture Content of Aggregate by Drying
ASTM C702	Standard Practice for Reducing Samples of Aggregate to Testing Size
ASTM D75	Standard Practice for Sampling Aggregate
ASTM D2419	Standard Test Method for Sand Equivalent Value of Soil and Fine Aggregate
ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat & Elongated Particles in Coarse Aggregate
ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate
	Test MethodASTM C29ASTM C70ATSM C88ASTM C117ASTM C127ASTM C128ASTM C128ASTM C131ASTM C131ASTM C136ASTM C135ASTM C535ASTM C566ASTM C702ASTM D2419ASTM D4791



No	Test Method	Test Procedure Title
1	ASTM C31	Standard Practice for Making and Curing Test Specimens in the Field
2	ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
3	ASTM C42	Standard Test Method for Obtaining and Testing Drilled Cores and Sewed Beams of Concrete
4	ASTM C109	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in or {50-mm} Cube Specimens)
5	ASTM C143	Standard Test Method for Slump of Hydraulic –Cement Concrete
6	ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
7	ASTM C174	Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
8	ASTM C188	Standard Test Method for Density of Hydraulic Cement
9	ASTM C191	Standard Test Method for Time of Setting of Hydraulic Cement by Vicat Needle
10	ASTM C 192	Standard Practice for Making and Curing Concrete Test Specimens in the laboratory
11	ASTM C204	Standard Test Method for Fineness of Hydraulic Cement by Air-Permeability Apparatus
12	ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
13	ASTM C617	Standard Practice for Capping Cylindrical Specimens
14	ASTM C642	Standard Test Method for Density, Absorption and Voids in Hardened Concrete
15	ASTM C1019	Standard Test Method for Sampling and Testing Grout
16	ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
17	ASTM C1437	Standard Test Method for Flow of Hydraulic Cement Mortar

# Table 3. List of Cement, Grout, Mortar, and Concrete Tests

