

Laboratory Certification For

GeoTest Geotechnical & Construction Material Testing Laboratory

Lab ID: LCP-025

Issue date: Sept 19th, 2018

Expiry date: Mar 18th, 2019

This extension letter confirms an additional 6-months certification for GeoTest Geotechnical & CMT Laboratory, which is located at Street 2, Near to Noorin TV, Dehberi, Kabul, Afghanistan. This laboratory should now be considered as **Certified for a period of 6-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 5, as attached to this letter. The following tests (**ASTM D3080, Soil Percolation, Double Ring Infiltrometer ASTM D3385**) are **not permitted under this period of Certification**. 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. Mr. Ahmad Shahpoor the laboratory manager;
- B. If the calibration certificates of equipment 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 http://aba.af/lcp_directory.php. The inspection and certification process for the GeoTest 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 40 tests, as shown on attached sheets and summarized as:

- Table 1: 9
Table 2: 8
Table 3: 13
Table 4: 9
Table 5: 1

Regards,

Mowdood Popal

President of Afghanistan Builders Association

(ABA)

2004

GeoTest Geotechnical & CMT Certified Laboratory Tests

Table 1. List of Certified Soil Tests

No	Test Method	Test Procedure Title
1	ASTM D422	Standard Test Method for Particle Size Analysis of Soils
2	ASTM D854	Standard Test Methods for Specific Gravity of Soil Solids by Water Pycnometer
3	ASTM D4643	Moisture Content of Soil
4	ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils
5	ASTM D558	Standard Test Methods for Moisture –Density (Unit Weight) Relations of Soil-Cement Mixtures
6	ASTM D1883	Standard Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils
7	ASTM D1556 (AASHTO T191)	Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method
8	ASTM D2166	Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
9	ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate

Table 2. List of Certified Aggregate (Fine and Coarse) Tests

No	Test Method	Test Procedure Title
1	ASTM D422	Sieve Analysis of Fine Aggregate and Fineness Modulus
2	ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
3	ASTM C127	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
4	ASTM C29	Standard Test Method for Unit Weight and Voids in Aggregate
5	ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
6	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
7	ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
8	CRD C171	Standard Test Method for Determining Percentage of Crushed Particles in Aggregate

Table 3. List of Certified Cement, Grout, Mortar, & Concrete Tests

No	Test Method	Test Procedure Title
1	ASTM C109	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)

2	ASTM C184	Standard Test Method for Fineness of Hydraulic Cement by # 100 and #200 Sieves
3	ASTM C430	Standard Test Method for Fineness of Hydraulic Cement by the 45- μ m (No. 325) Sieve
4	ASTM C191	Standard Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle
5	ASTM C192	Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory
6	ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
7	ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
8	ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
9	ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
10	ASTM C138	Standard Test Method for Unit Weight of Freshly Mixed Concrete
11	ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
12	ASTM C42	Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
13	ASTM C 805	Standard Test Method for Rebound Number of Hardened Concrete

Table 4. List of Certified Asphalt Cement and Asphalt Concrete Tests

No	Test Method	Test Procedure Title
1	ASTM D979	Standard Practice for Sampling Bituminous Paving Mixtures
2	AASHTO T79	Standard Method of Test for Flash Point with Tag Open-Cup Apparatus
3	ASTM D36	Standard Test Method for Softening Point
4	ASTM D5	Standard Test Method for Penetration of Bituminous Materials
5	ASTM D3549	Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixtures Specimens
6	ASTM D2041 (AASHTO T209)	Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
7	CRD C649	Standard Test Method for Unit Weight, Marshall Stability, and Flow of Bituminous Mixtures
8	ASTM D6927	Standard Test Method for Marshall Stability and Flow of Bituminous Mixtures
9	ASTM D2172	Standard Test Methods for Quantitative Extraction

Table 5. List of Certified Masonry Units, Bricks Tests

No	Test Method	Test Procedure Title
1	ASTM C 1314	Standard Test Method for Compressive Strength of Bricks, Sampling of Bricks, Water Absorption of Bricks