

**USACE-Certified Laboratory**

**Pamir Geotechnical Services Company**

Lab ID: LCP-016

Issue date: Nov 30<sup>th</sup>, 2020

Expiry date: Nov 29<sup>th</sup>, 2021

This letter confirms the completion of inspection and certification for the Pamir Lab, which is located Next to Erada Daily, Corner of first Junction, Dehmazang, 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 4, 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. Mr. Mohammad Khodadadi 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 [http://aba.af/lcp\\_directory.php](http://aba.af/lcp_directory.php). The inspection and certification process for Pamir 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 54 tests, as shown on attached sheets and summarized as:


Table 1: 22

Table 2: 13

Table 3: 12

Table 4: 7

Regards,



Ferdaws Mirza

ABA-Laboratory Certification Program Manager  
(ABA-LCP)

Pamir 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 D4221	Standard Test Method for Dispersive Characteristics of Clay Soil by Double Hydrometer
3	ASTM D854	Standard Test Method for Specific Gravity of Soils by Water Pycnometer
4	ASTM D1556	Standard Test Method for Density & Unit Weight of Soils in Place by Sand-Cone Method
5	ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics by Modified Effort
6	ASTM D698	Laboratory Compaction Characteristics of Soil Using Standard Effort
7	ASTM D1883	Standard Test Method for California Bearing Ratio (CBR) of Laboratory Compacted Soil
8	ASTM D2166	Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
9	ASTM D2216	Standard Test Method for Laboratory Determination of Water (moisture) Content of Soil and Rock By Mas
10	ASTM D4959	Standard Test Method for Determination of Water Content of Soil by Direct Hearing
11	ASTM D1140	Standard Test Methods for Determining the Amount of Material finer than 75 $\mu$ m (No. 200) Sieve in Soils by Washing
12	ASTM D4318	Standard Test Methods Liquid & Plastic Limits & Plasticity Index
13	ASTM D6951	Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications
14	ASTM D1586	Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils
15	ASTM D7263	Standard Test Methods for Laboratory Determination of Density (Unit Weight) of Soil Specimens
16	ASTM D2435	Standard Test Methods for One-Dimensional Consolidation Properties of Soil Using Incremental Loading
17	ASTM D3080	Standard Test Method for Direct Shear Test of Soil under Consolidated Drained Condition
18	ASTM D4829	Standard Test Method for Expansion Index of Soils
19	ASTM D4546	Standard Test Method for Expansion Index of Soils
20	ASTM D5333	Standard Test Method for Measurement of Collapse Potential of Soils
21	ASTM D6572	Standard Test Methods for Determining Dispersive Characteristics of Clayey Soils by the Crumb Test
22	ASTM D4944	Standard Test Method for Field Determination of Water (Moisture) Content of Soil by The Calcium Carbide Gas Pressure Test



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

No	Test Method	Test Procedure Title
1	ASTM C29	Standard Test Method for Unit Weight and Voids in Aggregate
2	ASTM C70	Standard Test Method for Surface Moisture in Fine Aggregate
3	ASTM C127	Standard Test Method for Specific Gravity & Absorption in Coarse Aggregate
4	ASTM C128	Standard Test Method for Specific Gravity & Absorption in Fine Aggregate
5	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
6	ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregate
7	ASTM C535	Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
8	ASTM C566	Standard Test Method for Total Evaporation Moisture Content of Aggregate by Drying
9	ASTM D2419	Standard Test Method for Sand Equivalent Value of Soils and Fine Aggregate
10	ASTM D4791	Standard Test Method for Flat Particles, Elongated Particles, Flat and Elongated Particles in Coarse Aggregate
11	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate
12	ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
13	ASTM C1437	Standard Test Method for Flow of Hydraulic Cement Mortar

Table 3. List of Certified Concrete & Masonry Tests

No	Test Method	Test Procedure Title
1	ASTM C39	Standard Test Method for Compressive Strength of Cylindrical
2	ASTM C42	Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
3	ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by Pressure Method
4	ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
5	ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
6	ASTM C174	Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores
7	ASTM C192	Standard Practice for Making and Curing Test Specimens in Laboratory
8	ASTM C617	Standard Practice for Capping Cylindrical Specimens
9	ASTM C805	Standard Test Method for Rebound Number of Hardened Concrete
10	ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
11	ASTM C140	Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units



No	Test Method	Test Procedure Title
12	ASTM C1552	Standard Practice for Capping Concrete Masonry Units, Related Units and Masonry Prisms for Compression Testing



Table 4. List of Certified Rock Tests

No	Test Method	Test Procedure Title
1	ASTM D5607	Standard Test Method for Performing Laboratory Direct Shear Strength Tests of Rock Specimens under Constant Normal Force
2	ASTM D5731	Standard Test Method for Determination of the point load strength Index of Rock
3	ASTM D4644	Standard Test Method for Slake Durability of Shales and Similar Weak Rocks
4	ASTM D7012	Standard Test Methods for Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures
5	ASTM D5873	Standard Test Method for Determination of Rock Hardness by Rebound Hammer Method
6	ASTM D6032	Standard Test Method for Determining Rock Quality Designation (RQD) of Rock Core
7	ASTM D3967	Standard Test Method for Splitting Tensile Strength of Intact Core Specimens