

Laboratory Certification For

Diamond Geo Engineering Services Company

Lab ID: LCP-018

Issue date: July 23rd, 2019

Expiry date: July 23rd, 2020

This letter confirms the completion of inspection and certification for the Diamond, which is located at House # 247, Street # 4, Kart-e- 3, Kabul, Afghanistan. This laboratory should now be considered as **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 following individuals while without his oversight, the laboratory will require re-certification:
 - a. Mr. Mohammad Salem Hossaini 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 re-certification; 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 www.aba.af/lcp_directory.php. The inspection and certification process for Diamond 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 39 tests, as shown on attached sheets and summarized as:

Table 1: 11

Table 2: 5

Table 3: 11

Table 4: 12

Regards,


Ferdaws Mirza
ABA-Laboratory Certification Program Manager
(ABA-LCP)


Diamond Geo Engineering Services 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 D698	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft ³ (2,700 KN-m/m ³))
3	ASTM D854	Standard Test Methods for Specific Gravity of Soil Solids by Water Pycnometer
4	ASTM D1140	Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75 µm) Sieve
5	ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method
6	ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort
7	ASTM D1883	Standard Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils
8	ASTM D2166	Standard Test Method for Unconfined Compressive Strength of Cohesive Soil
9	ASTM D2216	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
10	ASTM D2487	Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
11	ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils

Table 2. List of Certified Advance Soil Tests

No	Test Method	Test Procedure Title
1	ASTM D1586	Standard Test Method for Standard Penetration Test (SPT) and Split-Barre Sampling of Soils
2	ASTM D2434	Permeability of Granular Soils (Constant Head)
3	ASTM D2435	Standard Test Methods for One-Dimensional Consolidation Properties of Soils Using Incremental Loading
4	ASTM D5333	Standard Test Method for Measurement of Collapse Potential of Soils
5	ASTM D3080	Standard Test Method for Direct Shear Test of Soils Under Consolidated Drained Conditions



Table 3. 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 C127	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
3	ASTM C128	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
4	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
5	ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
6	ASTM C142	Standard Test Method for Clay Lumps and Friable Particles in Aggregates
7	ASTM C702	Standard Practice for Reducing Samples of Aggregate to Testing Size
8	ASTM D75	Standard Practice for Sampling Aggregates
9	ASTM C1260	Standard Test Method for Potential Alkali Reactivity of Aggregate (Mortar Bar Method)
10	ASTM D4944	Standard Test Method for Field Determination of Water(Moisture) Content of Soil by the Calcium Carbide Gas Pressure Tester
11	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate

Table 4. List of Certified Cement, Grout, Mortar, & Concrete Tests

No	Test Method	Test Procedure Title
1	ASTM C31	Standard Practice for Making and Curing Concrete Test Specimens in the Field
2	ASTM C39	Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
3	ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
4	ASTM C172	Standard Practice for Sampling of Freshly Mixed Concrete
5	ASTM C187	Normal Consistency of Hydraulic Cement
6	ASTM C188	Standard Test Method for Density of Hydraulic Cement
7	ASTM C191	Standard Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle
8	ASTM C192	Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory
9	ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
10	ASTM C805	Standard Test Method for Rebound Number of Hardened Concrete
11	ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete
12	ASTM C1437	Standard Test Method for Flow of Hydraulic Cement Mortar

