

Laboratory Certification For
The Sea Group

Lab ID: LCP-032

Issue date: May 10th, 2018

Expiry date: August 9th, 2018

This letter confirms the completion of inspection and certification for Sea Group, which is located at House # 1, Street # 1, Jamal Mina, District# 3, Kabul, Afghanistan. This laboratory should now be considered as **Certified for a period of 3-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 C188, ASTM D70, and ASTM D4791**) 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. Gullajan Bahadury;
- 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 SEA GROUP 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 48 tests, as shown on attached sheets and summarized as:

Table 1: 9
Table 2: 13
Table 3: 9
Table 4: 15
Table 5: 2

Regards,

Mowdood Popal

President of Afghanistan Builders Association



Sea Group 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 Amount of Material in Soil Solids by Water Pycnometer
3	ASTM D1140	Standard Test Methods for Amount of Material in Soils Finer than No. 200(75-75 μ m) S
4	ASTM D1556	Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method
5	ASTM D1557	Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort
6	ASTM D1883	Standard Test Method for CBR (California Bearing Ratio) of Laboratory Compacted Soils
7	ASTM D2216	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass
8	ASTM D2487	Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)
9	ASTM D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils

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	Test Method for Surface Moisture in Fine Aggregate
3	ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
4	ASTM C117	Standard Test Method for Materials Finer than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing
5	ASTM C127	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate
6	ASTM C128	Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Fine Aggregate
7	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size in the Los Angeles Machine
8	ASTM C136	Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
9	ASTM C535	Standard Test Method for Resistance to Large Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
10	ASTM C566	Standard Test Method for Total Evaporable Moisture Content of Aggregate by Drying
11	ASTM C702	Standard Practice for Reducing Sample of Aggregate to Testing Size
12	ASTM D75	Standard Practice for Sampling Aggregates

13	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate
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Table 3. 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 C109	Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)
4	ASTM C143	Standard Test Method for Slump of Hydraulic-Cement Concrete
5	ASTM C172	Standard Practice for Sampling Freshly Mixed Concrete
6	ASTM C191	Standard Test Methods for Time of Setting of Hydraulic Cement by Vicat Needle
7	ASTM C231	Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method
8	ASTM C617	Standard Practice for Capping Cylindrical Concrete Specimens
9	ASTM C1064	Standard Test Method for Temperature of Freshly Mixed Hydraulic Cement Concrete

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

No	Test Method	Test Procedure Title
1	ASTM D5	Standard Test Method for Penetration of Bituminous Materials
2	ASTM D36	Standard Test Method for Softening Point of Bitumen (Ring-and Ball Apparatus)
3	ASTM D92	Standard Test Method for Flash and Fire Points by Cleveland Open Cup Tester
4	ASTM D140	Standard Practice for Sampling Bituminous Materials
5	ASTM D979	Standard Practice for Sampling Bituminous Paving Mixtures
6	ASTM D2041	Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
7	ASTM D2172	Standard Test Methods for Quantitative Extraction
8	ASTM D2726	Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures
9	ASTM D3203	Standard Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures
10	ASTM D3549	Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixtures Specimens

No	Test Method	Test Procedure Title
11	ASTM D3665	Standard Practice for Random Sampling of Construction Materials
12	ASTM D5361	Standard Practice for Sampling compacted Bituminous Mixtures for Laboratory Testing
13	ASTM D5444	Standard Test Method for Mechanical Size Analysis of Extracted Aggregate
14	ASTM D6926	Standard Practice for Preparation of Bituminous Specimens Using Marshall Apparatus
15	ASTM D6927	Standard Test Method for Marshall Stability and Flow of Bituminous Mixtures

Table 5. List of Certified Steel Tests

No	Test Method	Test Procedure Title
1	ASTM A370	Standard Test Methods and Definitions for Mechanical Testing of Steel Products
2	ASTM E8	Standard Test Methods for Tension Testing of Metallic Materials