



# ISMAIL KHAN

Geologist | Geotechnical Specialist | Materials Testing & Quality Control Engineer



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## PROFILE SUMMARY

Geologist and Geotechnical Specialist with over 3 years of professional experience in laboratory supervision, materials testing, and quality control. Skilled in soil, aggregate, concrete, and asphalt testing in compliance with ASTM and ISO standards. Experienced in geological field investigations, rock mass classification, and mechanical behavior analysis of construction materials. Proficient in laboratory operations, technical reporting, team supervision, and coordination between field and laboratory activities. Holds a BS in Geology and certifications in RIG Course and Material Testing, with strong focus on sustainable construction materials, advanced testing methods, and continuous professional development.

## WORK EXPERIENCE

### Al Kaabi Soil and Material Testing, Saudi Arabia

**Position:** Lab Technician

**Duration:** Oct 2025 to Jan 2026

#### Responsibilities & Duties:

- Performed comprehensive soil and construction material testing including compaction, moisture content, and classification tests in accordance with ASTM standards
- Conducted quality control inspections and laboratory evaluations to verify compliance of construction materials with project specifications
- Assisted engineers in preparation and review of technical laboratory reports, ensuring accuracy and proper documentation of results
- Maintained strict adherence to testing procedures, safety regulations, and laboratory quality assurance protocols during daily operations
- Coordinated sample handling, labeling, and testing schedules to support timely project execution and reporting requirements
- Improved testing workflow efficiency, contributing to approximately 15% faster report submission turnaround

### Soil Investigation Services, Karachi

**Position:** Lab Supervisor

**Duration:** Aug 2023 to Sep 2025

#### Responsibilities & Duties:

- Supervised daily laboratory testing operations and guided technical staff to ensure accurate execution of geotechnical testing activities
- Conducted geological and geotechnical investigations including soil sampling analysis and interpretation of subsurface conditions
- Monitored sampling procedures and product quality testing to maintain consistency with engineering and project standards
- Ensured full compliance with ASTM and ISO testing standards through regular inspections and procedural verification
- Managed preparation, review, and documentation of laboratory reports while maintaining organized testing records
- Coordinated with field teams and project engineers to align laboratory testing priorities with construction schedules
- Increased laboratory productivity and testing accuracy by approximately 20% through improved supervision and workflow management

### Earth Testing Services, Karachi

**Position:** Lab Technician

**Duration:** Dec 2022 to Aug 2023

#### Responsibilities & Duties:

- Conducted weekly and 28 day concrete compressive strength tests to evaluate structural performance and material quality
- Performed casting and curing of concrete cylinders following standard laboratory procedures and quality requirements
- Executed gradation analysis of sand and aggregates to determine suitability for construction applications
- Performed field density tests along with plastic limit and liquid limit testing for soil classification and compaction assessment
- Prepared detailed laboratory test reports with accurate calculations and supporting technical observations
- Supervised concrete works on site including monitoring of water cement ratio to maintain mix design compliance
- Supported quality improvement initiatives that enhanced testing accuracy by approximately 12% through consistent procedure adherence

## EDUCATION DETAILS

### BS Geology

- Shaheed Benazir Bhutto University, KPK | Session: 2018 to 2022

### FSc

- Excellent Model College, Timaraga, KPK | Session: 2015 to 2017

## CERTIFICATION & PROFESSIONAL DEVELOPMENT

- RIG Course, 2023
- Material Testing Diploma, 2023
- Certificate of Participation, Department of Geology Activities, 2019
- Certificate of Participation, One Day Webinar on Lacustrine Microfossils

- Python in Oil and Gas, Advantage Learning Solution
- First Aid Certification
- H2S Safety Certification
- Work at Height Safety Training
- Personal Protective Equipment Training
- Confined Space Entry Certification
- Health, Safety and Environment Training
- Permit to Work System Training

## RESEARCH WORK

### Rock Mass Classification

#### 1.5.1 Field Work

- Performed detailed field investigations including kinematic analysis of joints with respect to persistence, separation, roughness, infilling, spacing, weathering condition, and orientation, with all parameters directly observed and recorded at site locations
- Collected bulk rock samples from different representative zones of the study area to support laboratory strength testing and geological evaluation
- Documented structural and discontinuity characteristics using standard geological field mapping and observation techniques

### Lab Work

- Refined and analyzed measured field data to calculate average values required for determination of Rock Mass Rating classification
- Evaluated mechanical behavior of rock through Unconfined Compressive Strength testing performed on core samples extracted from collected bulk samples
- Prepared laboratory specimens using a core drilling machine at the Rock Cutting Laboratory, Shaheed Benazir Bhutto University Sheringal, ensuring testing accuracy and proper sample dimensions
- Interpreted laboratory results to correlate field observations with rock strength characteristics and engineering classification outcomes

## KEY SKILLS

- **Geotechnical Investigation and Analysis:** Soil and rock assessment, subsurface investigation, field sampling supervision, interpretation of geotechnical data for engineering applications
- **Materials Testing and Quality Control:** Soil, aggregate, concrete, and asphalt testing with strict adherence to ASTM and ISO quality standards
- **Laboratory Operations Management:** Laboratory workflow supervision, testing coordination, equipment handling, and maintenance of testing accuracy
- **Concrete Testing and Evaluation:** Concrete casting, curing procedures, compressive strength testing, and water cement ratio monitoring for quality assurance
- **Soil Classification and Compaction Testing:** Field density testing, plastic and liquid limit analysis, gradation testing, and compaction assessment procedures
- **Geological Field Investigation:** Rock mass classification, structural mapping, joint analysis, and geological parameter documentation in field environments
- **Rock Mechanics and Strength Testing:** Unconfined compressive strength testing, sample preparation, and mechanical behavior evaluation of rock materials
- **ASTM and ISO Standards Compliance:** Implementation of international testing procedures, quality verification, and laboratory compliance monitoring
- **Technical Reporting and Documentation:** Preparation of laboratory reports, data recording, result interpretation, and technical documentation management
- **Sampling and Site Coordination:** Material sample collection, labeling, tracking, and coordination between field and laboratory teams
- **Quality Assurance and Inspection:** Construction material inspection, verification of testing procedures, and compliance with project specifications
- **Laboratory Data Analysis:** Processing field and laboratory measurements, averaging datasets, and supporting engineering evaluations
- **Team Supervision and Coordination:** Guidance of laboratory staff, task allocation, performance monitoring, and workflow improvement
- **Health, Safety and Laboratory Practices:** Application of safety procedures, risk awareness, and maintenance of safe laboratory environments
- **IT and Technical Software Skills:** MS Office applications, laboratory reporting systems, data entry management, and technical documentation preparation
- **Communication and Teamwork:** Effective collaboration with colleagues, clear reporting, and coordination with multidisciplinary teams in field and laboratory settings

## LANGUAGES PROFICIENCY

- English, Working proficiency
- Urdu, Native
- Pushto, Native

## PERSONAL INFORMATION

- Nationality: Pakistani
- Iqama Status: Transferable

## RECOMMENDATIONS

- Will be provided on demand.