



SPECIALISED TESTING SOLUTIONS
For Industry Challenges

Who We Are

Established in 1994, Trilab is one of the largest specialised testing companies where we provide innovative solutions and services to the mining, exploration, engineering and infrastructure industries.

Equipped with unmatched workforce expertise, we are committed to partnering with our customers to provide value added solutions that further our mission and deliver the highest quality results for all our stakeholders.

WORLD CLASS LABORATORIES



With three NATA accredited laboratories across Australia, Trilab established itself as leading service provider for specialised testing. Located in Brisbane, Sunshine Coast and Perth, we are well positioned to support our customers across Asia Pacific region and globally. By combining the scale of our facilities and our unsurpassed experience, we cover a full range of testing applications including:

- **Soil and Rock Mechanics Testing**
- **Concrete And Aggregate Testing**
- **Petrographic And Quarry Assessment**
- **Instrument Calibrations Services**

Start with Service Excellence

Unmatched Experience

At Trilab we recognise that our success is driven by our highly experienced and diverse workforce. With more than fifty skilled employees in Australia, we work side by side with our customers to provide accurate, consistent and timely results first time and every time.

With our teams' strong commitment and dedication to performance, combined with our adherence to NATA rules, we are firmly focused to improve customer experience, break barriers and set new industry standards.

Continuous Improvement

Trilab is a technology adept company with a portfolio of distinctive technologies and cost effective solutions to address the industry challenges for maximum profitability. Combining our extensive exposure to the fastest growing markets and our outstanding customer relationships we are constantly looking for opportunities to improve our services, develop new testing methods and enhance our current capabilities.

Proven Track Record

With real results and customers around the world, Trilab has a proven track record of successful projects where we combined our technological portfolio with our talented workforce to deliver performance solutions.

Our Recent Projects

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| Australia: | Various rock and soil testing projects for mining, infrastructure and engineering |
| Mongolia: | Various rock triaxial testing projects for underground mining |
| Indonesia: | Various rock and soil testing projects for tailing storage, mining and engineering |
| Kingdom of Saudi Arabia: | Various petrographic assessment projects for engineering |



50+

In-house Engineers
and Technicians



NATA

World Recognised Accreditation.
Accredited Laboratory No. 9926.



Delivering 20+ Years of
Specialised Testing Expertise



Safety and Service Quality

STRIVING FOR FLAWLESS EXECUTION

Our commitment to safety and service quality is embedded into every level of our organization. Our operational performance meets the criteria outlined by national and international management system standards.

We are passionate about trying new things and revolutionizing our industry. We are committed to doing so safely, taking care of our people, our customers and the environment in which we operate.



As a trusted partner to our customers, we are committed to maintaining a world-class culture of integrity in every service we perform.

We drive customer satisfaction with our quality standards and ensure that everything we do is compliant with customer, NATA, internal and external requirements.

Our service excellence is built on safety and quality, we will continue to invest in our people, equipment and regularly review our services to improve our performance.

Our Capabilities

Our specialised testing services provide high quality information to guide customers' decision making. We cover a wide range of basic and advanced soil and rock mechanics testing; various petrographic assessment and quarry material assessment; geological classification; concrete aggregate testing; acid sulfate testing; and instrumentation services.



OUR TESTING SERVICES - OVERVIEW

Trilab provides a range specialised testing services, including but not limited to the following:

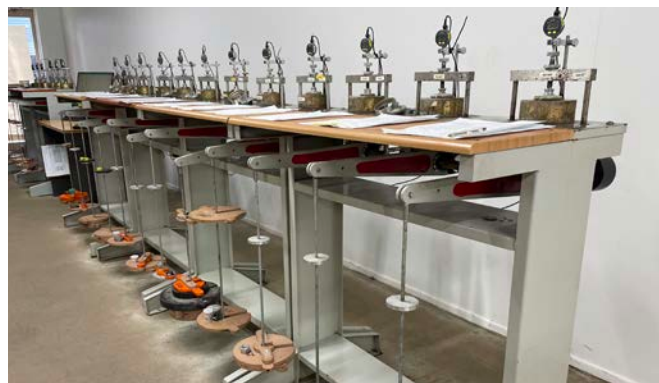
Rock Mechanics Testing	Soils and Aggregate Testing	Petrographic, Geological and Geochemical Services	Instrumentations
Rock Mechanics	Advanced Soil Mechanics and Permeability	Petrography, Mineralogy and Geological Field Observation	Instrument Calibration
Advanced Rock Mechanics, Triaxial Direct Shear	Soil Mechanics, CBR and Compaction	X-Ray Diffraction, Fluorescence and Geochemical Analysis	Maintenance Services
Rock Properties and Durability	Classification and Identification, Dispersion, Settling and Chemical	Thin Sections Production	Software Support

Soil Mechanics Testing

Trilab offers a wide range of basic and advanced soil mechanics testing using the latest geomechanical equipment and associated data acquisition systems. Our soil testing capability includes triaxial strength and consolidation, permeability testing, compaction testing, classification and index testing, aggregate testing and dispersion and chemical testing.

Classification and Index Testing

- Visual Classification
- Moisture Content
- Atterberg Limits (including Linear Shrinkage)
- Particle Size Distribution with Hydrometer (including Particle Density)
- Shrink Swell Index with swell pressure
- Apparent Particle Density (Specific Gravity)



Advanced Soils Mechanic Testing and Permeability

- Triaxial Testing with pore pressure – 50mm, 63mm, 75mm, 86mm, 100mm.
- Critical State Locus Triaxial – Isotropic, Anisotropic and K0 Consolidation
- Repeat Load Triaxial, Triaxial Permeability
- Direct Shear up to 300mm
- Torsional Ring Shear
- Cyclic and Monotonic Direct Simple Shear
- Oedometer with Particle Density
- Rowe Cell Consolidation and Permeability
- Collapse Potential
- Permeability Falling Head, Constant Head



CBR and Compaction, Dispersion, Settling and Chemical Testing

- Soaked and Unsoaked CBR including Standard and Modified MDD
- 4 Point CBR Main Roads – Standard and Modified
- Maximum Dry Density – Standard and Modified
- Percentage Dispersion
- Emerson Class No
- Pinhole Dispersion
- Column Settling Tests – Drained and Undrained



Rock Mechanics Testing

Trilab house the latest state of the art technologies and equipment to perform various rock mechanics testing including triaxial testing, strength testing and direct and indirect tensile strength testing.



Rock Mechanics Testing

- Unconfined Compressive Strength UCS
- UCS with Young's Modulus, Poisson's Ratio
- Point Load Index- Both axial and diametral directions
- Direct Tensile Strength for Concrete Core
- Indirect Tensile Strength (Brazilian)
- Block Punch Strength Index

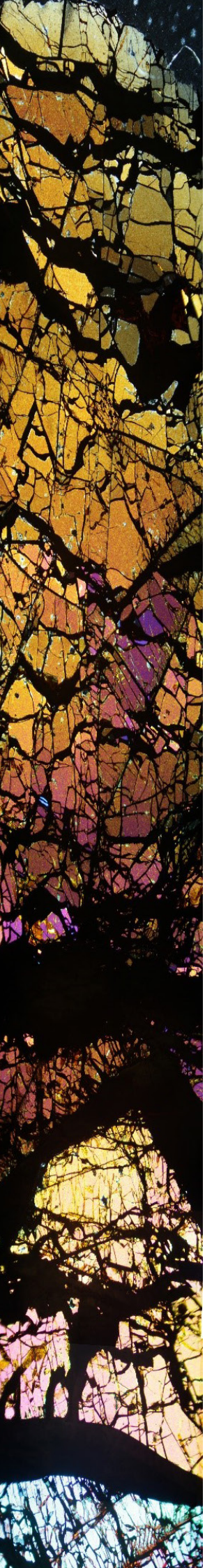
Rock Properties and Durability

- Slake Durability up to four cycles
- Slaking and Dispersion Potentials
- Rock Porosity and Density
- Cerchar Abrasivity
- Rock Swelling Potential
- Unit Weight and Moisture Content

Advanced Rock Mechanics Testing

- Rock Triaxial Single Stage
- Rock Triaxial Multi Stages
- UCS with Young's Modulus, Poisson's Ratio and post peak analysis including Sonic Velocity
- Sonic Velocity - Measurement of both P & S Wave
- Intact and Defect Direct Shear up to 100mm
- Surface Profiling - Pre and Post Direct Shear
- Acoustic Emission for Crack Initiation Determination





Petrographic Analysis and Geochemical Testing

Our Geochempet Services laboratory specialises in petrographic aspects of engineering geology particularly in the quarrying, mineral exploration, and construction industries.

Geochempet Services produces over 2000 technical reports and 3500 thin sections annually. We cover a complete range of petrographic and geological analysis including petrographic assessment, geochemical analysis, quarry assessment and certification, concrete analysis and engineering investigation, XRD and XRF analysis, geological field observation and thin section services.

Engineering, Exploration and Quarries Applications

- Petrographic analysis on single rock type, sand, gravel, aggregate and hardened concrete
- Assessment of asbestos material by petrographic or SEM/TEM analysis
- TMR Quarry Assessment and Geological Setting
- Rock material weathering classification
- Secondary Mineral Counting
- Equivalent Quartz Content
- Free Silica Content and Respirable Crystalline Silica
- Shape Analysis of Sand, Aggregate and Crushed Dust
- Microscopic identification and grain counting of heavy mineral concentrates
- X-Ray Diffraction both qualitative and quantitative analysis with mineral, clay and amorphous content
- X-Ray Fluorescence and other Geochemical analysis
- Rock cutting and Thin Sections Services



Concrete Aggregate and Acid Sulfate Testing

Our Sunshine Coast laboratory covers aggregate testing, acid sulfate testing and quarry materials assessment.

We can support our customers with a full range of services relating to the investigation and management of acid sulfate soils issues, chloride and sulfate content of concrete, soils and aggregate, depth of carbonation testing on concrete core, acid solubility of aggregate, PH of soil and aggregate, electrical resistivity of soil and aggregate and erosion properties.

Acid Sulfate Soils Testing

We offer a full range of investigation and management services of acid sulfate soils issues for your project. Our Environmental Scientists can design and implement field sampling programs and our laboratory is capable of undertaking analytical testing in accordance with both the CRS and SPOCAS suites of testing.



Specialist Concrete Aggregate Testing

Our specialised testing facilities perform testing on concrete and aggregate samples not regularly offered by most materials testing facilities. Our services range from chloride ion permeability on hardened concrete samples through to electrochemical testing of aggregates and specialised material classification testing.



Quarry Materials Assessment

Our quarry materials testing services include Quarry Registration Systems and individual tests for unique products, and regular compliance testing. Our assessments will ensure your products are always meeting the appropriate project specifications and comply with any relevant standards.



Calibration and Instrumentation

We offer various calibration and instrumentation services for a large range of engineering metrology equipment in addition to troubleshooting and support services.



Instrumentation Applications

- Nata calibration of wire woven and plate sieves to AS, ASTM and ISO specifications.
- Dial gauges to NATA CMT and AS2103 requirements
- Extensometers / Load Cells / Proving Rings
- Concrete and material testing equipment
- Single range and delta range electronic balances to 60 kg
- Pressure gauges / transducers
- Vernier calipers
- Rubber hardness
- Support services for development, troubleshooting of existing software assisting in the automation of laboratory test methods

Our Accreditations

Trilab adheres to the testing methods defined by the Australian standards, ASTM international and other accreditations including the following:

NATA ACCREDITED

Trilab is accredited by the National Association of Testing Authorities, Australia (NATA, Accredited Laboratory No. 9926).

We perform soil and rock material testing, to Australian and ASTM international standards.



ISO/IEC 17025 CERTIFIED

Our quality laboratory systems are certified to ISO 17025 for testing and calibration services.



QUARANTINE APPROVED

We hold Department of Agriculture, Fisheries and Forestry Permits to import, store, handle and treat quarantine material under the Quarantine Act 1908 which authorises the company to import soil and rock samples from all countries subject to certain conditions.

QUEENSLAND DEPARTMENT OF TRANSPORT AND MAIN ROADS

We hold 'C.M.T registered supplier' status with the Department of Transport and Main Roads Queensland.

MEMBERSHIP

Trilab is proud to be a member of the following organisations:

- Association of Geotechnical Testing Authorities (Qld)
- Australian Geomechanics Society (AGS)
- International Society of Rock Mechanics (ISRM)

WORKING TO STANDARDS

Trilab is Australasia's largest independent soil and rock testing laboratories.

We adhere to the testing methods defined by Standards Australia, and is accredited to other standards including ASTM International and standards associated with other jurisdictions.

What We Stand For

At Trilab, our values guide our decision making and underpin the way we support our mission, vision and strategic goals.

OUR MISSION

Together, we achieve operational excellence by evolving and innovating solutions.

OUR CORE VALUES



Collaborate

We inspire, we collaborate without boundaries, we are inclusive and bring out the best in each other.



Adapt

We improve today and innovate for the future through new ideas and ways of working.



Assure

We act with integrity, we do the right thing always, for our customers, our people and environment.



Evolve

We see challenge as opportunity and strive to be better everyday.



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