

GEOTECHNICAL LABORATORY

SCOPE OF TESTS



| ISO 17025 Infrastructure and Asset Integrity | | | | |
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| Service | Product | Determination | Technique | Procedure |
| Evaluation of geotechnical and civil construction material - Aggregate binder adhesion | Aggregates | Degree of precoating | Not applicable | MR (Qld) Method Q216 |
| Evaluation of geotechnical and civil construction material - Aggregate contaminants | Aggregates | Clay and fine silt; Organic impurities; Weak particles contaminants | Colour test; Settling; Sieve analysis | AS 1141.32; AS 1141.33; AS 1141.34 |
| Evaluation of geotechnical and civil construction material - Aggregate properties | Aggregates | Bulk density; Particle density of coarse aggregate; Particle density of fine aggregate; Particle size distribution; Polished aggregate friction value; Shape; Wet/dry strength variation | Average least dimension; Crushed faces; Degradation factor on coarse aggregate; Degradation factor on source rock; Exposure to sodium sulfate solution; Flakiness; Proportional calliper | AS 1141.4; AS 1141.5; AS 1141.6.1; AS 1141.11.1; AS 1141.12; AS 1141.14; AS 1141.15; AS 1141.18; AS 1141.20.3; AS 1141.22; AS 1141.24; AS 1141.25.1; AS 1141.25.2; AS 1141.40; AS 1141.42 MR (Qld) Method Q201; MR (Qld) Method Q203; MR(Qld) Method Q208B |

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| Service | Product | Determination | Technique | Procedure |
| Evaluation of geotechnical and civil construction material - Soil classification | Soils | Linear shrinkage; liquid limit; Moisture content; Plastic limit; Plasticity index; Sieve analysis; Weighted plasticity index | Casagrande four point; Casagrande one point; Cone four point; Cone one point; Drying oven | AS 1289.2.1.1; AS 1289.3.1.1; AS 1289.3.1.2; AS 1289.3.2.1; AS 1289.3.3.2; AS 1289.3.4.1; AS 1289.3.6.1; AS 1289.3.9.1; AS 1289.3.9.2; MR (Qld) Method Q103A; MR (Qld) Method Q104A; MR (Qld) Method Q104D; MR (Qld) Method Q105; MR (Qld) Method Q106, MR (Qld) Method Q252 |
| Evaluation of geotechnical and civil construction material - Soil compaction characteristics | Soils | Dry density/moisture content relationship | Modified compactive effort; Standard compactive effort | AS 1289.5.1.1; AS 1289.5.2.1; MR (Qld) Method Q142A; MR (Qld) Method Q142B |
| Evaluation of geotechnical and civil construction material - Soil engineering properties | Soils | Bearing ratio | Remoulded specimens | AS 1289.6.1.1; MR (Qld) Method Q113A; MR (Qld) Method Q113B; MR(Qld) Method Q113C |
| Evaluation of geotechnical and civil construction material - Soil pre-treatment | Soils | Soil pre-treatment | Not applicable | AS 1289.1.1; MR (Qld) Method Q101; MR (Qld) Method Q101A; MR (Qld) Method Q101B; MR (Qld) Method Q101D; MR (Qld) Method Q101F |

| ISO 17025 Infrastructure and Asset Integrity | | | | |
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| Service | Product | Determination | Technique | Procedure |
| Sample collection | Soils | Not applicable | Disturbed sampling from earthwork; Site selection - Random sampling; Site selection - Random stratified sampling | AS 1289.1.2.1; AS 1289.1.4.1; AS 1289.1.4.2; MR (Qld) Method Q050 |