

# Schedule

Geolab Services Pte Ltd  
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Singapore 417943

Certificate No. : LA-1991-0039-B

Issue No. : 10

Date : 02 October 2009

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## SCOPE OF ACCREDITATION

FIELD OF TESTING : Civil Engineering Testing

MATERIALS / PRODUCTS TESTED	TESTS / PROPERTIES	STANDARD METHOD / TECHNIQUES / EQUIPMENT USED
<b>A. SOILS</b>	1. Visual Classification	Unified Classification System ASTM D2487 – 1998 BS 5930 : 1981
	2. Moisture Content	BS 1377 : Pt 2 #3 : 1990 ASTM D2974 –1987
	3. Density	ASTM/BS 1377 : Pt 2 #7 : 1990
	4. Specific Gravity	ASTM D854 – 1992
	5. Liquid Limit	ASTM D4318 – 2005 BS 1377 : Pt 2 #4.5 & #4.6 : 1990
	6. Liquid Limit Cone Penetrometer Test	BS 1377 : Pt 2 #4.3 : 1990
	7. Plastic Limit	ASTM D4318 –2005 BS 1377 : Pt 2 #5 : 1990
	8. Percent Passing #200 Sieve	ASTM D1140 – 1997
	9. Sieve Analysis	ASTM D422 – 1963 (Re-approved 1998) BS 1377 : Pt 2 #9.2 & #9.3 : 1990
	10. Hydrometer Analysis	ASTM D422 – 1963 (Re-approved 1998)

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	11. Unconfined Compression	BS 1377 : Pt 7 #7 : 1990 ASTM D2166 – 1998a
	12. Unconsolidated Undrained Tri-axial	BS 1377 : Pt 7 #8 & #9 : 1990 ASTM D2850 – 2003A (Reapproved 2007)
	13. Consolidated Undrained Tri-axial	K. H. Head Vol. 3 BS 1377 : Pt 8 #7 : 1990 ASTM D4767 – 1995
	14. Consolidated Drained Tri-axial	K. H. Head Vol. 3 BS 1377 : Pt 8 #8 : 1990
	15. Oedometer	ASTM D4186 : 2006 BS 1377 : Pt 5 #3 : 1990
	16. Compaction	BS 1377 : Pt 4 #3 : 1990 ASTM D698 & 1557 – 1991 (Re-approved 1998)
	17. California Bearing Ratio (CBR)	BS 1377 : Pt 4 #7 : 1990 ASTM D1883 – 1994
	18. Direct Shear	K. H. Head Vol. 2 BS 1377 : Pt 7 #4 : 1990 ASTM D3080 – 1998
	19. Laboratory Vane	ASTM D4648 – 1994 BS 1377 : Pt 7 #3 : 1990
	20. Falling Head Permeability	K. H. Head Vol. 2
	21. Swell Test	BS. 1377 : Pt 5 #4 : 1990 ASTM D4546 – 1996 (Method B)
	22. In-situ Density - Sand Replacement Method	BS 1377 : Pt 9 #2 : 1990

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	23. Measurement of Hydraulic Conductivity of Saturated Porous Material Using a Flexible Wall Permeameter	ASTM D5084 – 1990 (Re-approved 1997)
	24. Determination of Permeability in a Tri-axial Cell	BS 1377 : Pt 6 #6 : 1990
	25. Determination of Maximum and Minimum Dry Densities for Granular Soils	BS 1377 : Pt 4 : 1990
	26. Density and Unit Weight of Soils in Place by the Rubber Balloon Method	ASTM D2167 – 1994
	27. Rowe Cell Consolidation Test	BS 1377 : Pt 6 #3 : 1990
	28. Consolidated Un-drained Direct Shear Testing of Cohesive Soil	ASTM D6528 : 2000
	29. Calcium Carbonate Content	ASTM D4373 – 1996
	30. Isotropic Consolidation using Triaxial Compression Test	BS 1377 : Pt 6 #5 : 1990
	31. Saturated Unconsolidated Undrained Triaxial	K.H. Head Vol. 19.3
	32. One Dimensional Consolidation test using the controlled – strain load	ASTM D4186 : 2006
	33. Organic Content	BS 1377 : Pt 3 #4 : 1990
	34. Electrical Resistivity (Wenner Probe Method)	BS 1377 : Pt 3 #10.3 : 1990
	35. In-Site Apparent Resistivity	BS 1377 : Pt 9 #5.1 : 1990

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<b>B. ROCK</b>	1. Unconfined Compressive Strength of Intact Rock Core	ASTM D7012 : 2007 (Method C only)
	2. Preparing Rock Core Specimens and Determining Dimensions and Shape Tolerance	ASTM D4543 – 1985 (Re-approved 1991)
	3. Absorption and bulk specific gravity of natural building stone	ASTM C97 – 1983
	4. Slake durability of shales and similar weak rocks	ASTM D4644 – 1987 (Re-approved 1992)

## Approved Signatories

Mr Syed Ahmad ) For all tests accredited

Mr Abdul Wahid Bin Samion )

## Note :

This laboratory is accredited in accordance with the recognised International Standard ISO/IEC 17025:2005. A laboratory's fulfilment of the requirements of ISO/IEC 17025:2005 means the laboratory meets both the technical competence requirements and **management system requirements** that are necessary for it to consistently deliver technically valid test results and calibrations. The **management system requirements** in ISO/IEC 17025:2005 (Section 4) are written in language relevant to laboratory operations and meet the principles of ISO 9001:2008 **Quality Management Systems — Requirements** and are aligned with its pertinent requirements.