

Table of contents

1	Introduction.....	1
2	Characterization of samples	3
2.1	Coring and sample preparation.....	3
2.2	Mineral composition.....	6
2.3	Physical properties	8
3	Laboratory experiments	13
3.1	Test programme	13
3.2	Test methods.....	14
3.3	Test results.....	17
3.3.1	Hydrostatic pre-compaction	18
3.3.2	Triaxial compression at constant strain rate.....	24
3.3.3	Triaxial compression at constant stress rate	28
3.3.4	Triaxial extension by lateral compression at constant axial stress.....	30
3.3.5	Triaxial extension by lateral compression and axial tension	30
3.3.6	Triaxial creep under multistep stresses.....	32
3.4	Analysis of the test results	35
3.4.1	Elastic properties	35
3.4.2	Failure strength and mode	46
4	Conclusions	53
	List of tables	57
	List of figures.....	59

Appendix

A	Appendix: Drilled cores and sample preparation.....	65
B	Appendix: Mineral composition of drilled cores	67
C	Appendix: Characteristics of tested samples.....	69

D	Appendix: Test plan	73
E	Appendix: Test data	75
E.1	TCD – triaxial compression tests with strain control	75
E.2	TCS – triaxial compression tests with stress control	88
E.3	TES – triaxial extension tests at constant axial stress.....	93
E.4	TEM – triaxial extension tests at constant mean stress.....	98
E.5	TCC – triaxial creep tests at multistep stress states.....	103