Biax Experiment

For current calibrations – `gpfs/group/cjm38/default/Calibrations/`

Revised: 30 Nov. 2021

Exp. Name: p5704
Operator(s): Wood, Ke
Temperature (°C):
Relative Humidity (%):

Date/Time: 15/04/2022
Hydraulics start: 5212.4
Hydraulics end:
Data Logger/Control File: 16-chan

Purpose/Description: measure perm of sawcut westerly granite L-block sawcut and roughened with 80/120 grit. Sample Block Used and Thickness with **no** Sample: SDS Vessel 5x5 cm

Material: Westerly Grainite. Sawcut. 120/80 grit
Benchtop Sample Thickness (mm): 32.5

Load Cells: Contact Area: 0.0022231311 m^2

Load cell name	Calibrations (mV/kN)	Target stress (MPa)	Init. Voltage	Volt. @ load
44mm Solid Horiz	129.984 (V/MPa): 0.289	4, 9.25, 11, 13, 15, 18	0.0615	1.21739, 2.73449, 3.24019, 3.81813, 4.39607, 5.26299
44mm Solid Vert	120.364 (V/MPa): 0.2676	0	3.764	3.764

Vessel Pressures: Pore Fluid:H2O

Calibrations (V/MPa)	Pressures (MPa)	Init. Voltage	Volt. @ load
Pc: 0.1456	2, 8.25, 10.5, 12, 13.5, 12	-0.273	0.0182, 0.9282, 1.2558, 1.4742, 1.6926, 1.4742
PpA: 1.5177	2.6, 1.4	-0.12	3.82602, 2.00478
PpB: 1.483	2.6	-0.566	3.2898

Displacement Transducers

Name	*Gain (mm/V)*
Horiz. Load-point	0.658
Vert. Load-point	3.51
Horiz. On-Board	0.416

Horizontal Servo Settings	
P:	D_{atten}:
I:	Feedback:
D:	E-gain:
Vertical Servo Settings	
P:	D_{atten}
I:	Feedback:
D:	E-gain:

Chilled water at HPS	*Chiller Unit*	*Proc. water @ Chiller*
1. Temp In (°F):	6. Panel Temp (°F):	10. Temp In (°F):
2. Pres. In (psi):	7. Panel Pres. (psi):	11. Pres. In (psi):
3. Temp Out (°F):	8. Near Pres. In (psi):	12. Temp Out (°F):
4. Pres. Out (psi):	9. Near Pres. Out (psi):	13. Pres. Out (psi):
5. Flow (lpm):		
Hyd. Power Supply (HPS)		
14. Tank Temp (°C):	15. Temp. Out (°C):	16. Pres. Out (psi):

Experiment Notes

3160 apply load to 5kN
5940 NS to 4 MPa
6000 fill vessel, Pc to 2 MPa
8900 PpB to 1 MPa
9980 flow-thru.
12300 NS to 9.25 MPa, Pc to 8.25 MPa
34000 PpA, PpB to 2.6 MPa
76700 PpA to 1.4 MPa, begin flow-thru
143000 PpA to 2.6 MPa
155000 NS to 11 MPa, Pc to 10.5 MPa
176000 PpA to 1.4 MPa, begin flow-thru
244500 Ppa to 2.6 MPa
247500 NS to 13 MPa, Pc to 12 MPa
264500 PpA to 1.4 MPa, begin flow-thru
332400 PpA to 2.6 MPa
374500 NS to 15 MPa, Pc to 13.5 MPa
385000 PpA to 1.4 MPa, begin flow-thru
448000 PpA to 2.6 MPa
455000 NS to 18 MPa, Pc to 12 MPa
470000 PpA to 1.4 MPa, begin flow-thru
540000 PpA to 2.6 MPa
554000 NS to 15 MPa, Pc to 13.5 MPa
556500 PpA to 1.4 MPa, begin flow-thru
622000 PpA to 2.6 MPa
625500 NS to 13 MPa, Pc to 12 MPa
640000 PpA to 1.4 MPa, begin flow-thru
704000 PpA to 2.6 MPa
709000 NS to 11 MPa, Pc to 10.5 MPa
727000 PpA to 1.4 MPa, begin flow-thru
787000 PpA to 2.6 MPa, NS to 9.25 MPa, Pc to 8.25 MPa
798000 PpA to 1.4 MPa, begin flow-thru
861500 PpA, PpB, Pc to 0 MPa, NS to 5 kN