Biax Experiment

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

Revised: 30 Nov. 2021

Exp. Name: p5721
Operator(s): Wood, Ke
Temperature (°C):
Relative Humidity (%):

Date/Time: 02/05/2022
Hydraulics start: 5286.4
Hydraulics end: 5290.7
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 Granite
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	0.122	1.27789, 2.79499, 3.30069, 3.87863, 4.45657, 5.32349
44mm Solid Vert	120.364 (V/MPa): 0.2676	0	0	0.

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	-0.276	0.0152, 0.9252, 1.2528, 1.4712, 1.6896, 1.4712
PpA: 1.5177	2.6, 1.4	-0.116	3.83002, 2.00878
PpB: 1.483	2.6	-0.79	3.0658

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

370 NS to 10 kN
840 Pc to 2 MPa
1000 saturate. PpA to about 1.5 MPa
6700 NS to 9.25 MPa, Pc to 8.25 MPa
14600 PpB to 2.6 MPa, PpA to 1.4 MPa.
100000 NS to 11, Pc to 10.5 MPa
175000 NS to 13 MPa, Pc to 12 MPa
250000 NS to 15 MPa, Pc to 13.5 MPa
330000 NS to 18 MPa, Pc to 12 MPa
400000 NS to 15 MPa, Pc to 13.5 MPa
475000 NS to 11 MPa, Pc to 10.5 MPa
550000 NS to 9.25 MPa, Pc to 8.25 MPa
638400 remove stresses