Biax Experiment

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

Revised: 30 Nov. 2021

Exp. Name: p5729
Operator(s): Wood, Affinito
Temperature (°C):
Relative Humidity (%):

Date/Time: 13/05/2022
Hydraulics start: 5320.9
Hydraulics end: 5328.8
Data Logger/Control File: 16-chan

Purpose/Description: Measure changes in perm in response to NS/PP oscillations of sawcut sample roughened with 120/80 grit. Onboard DCDTs on A/B intensifiers.
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, 8.25, 18	0.048	1.20389, 2.43201, 5.24949
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, 12	0.029	0.3202, 1.2302, 1.7762
PpA: 1.5177	2.6, 1.4	0.112	4.05802, 2.23678
PpB: 1.483	2.6	-0.076	3.7798

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

150 NS to 10 kN

1850 Pc to 2 MPa

2100 saturate PpA to 1-1.5 MPa

7000 NS to 9.25 MPa, Pc to 8.25 MPa

22200 PpB, A to 2.6 MPa. PpA to 1.4 MPa.
On-board Pp DCDTs have opposite sign of respective LVDTs.

44000 Start PpB oscillations and acoustics. First oscillation is practice.

1119800 PpB oscillation [0.2, 0.4, 0.6, 0.8, 1.0] MPa and repeat, acoustics run2.

2277000 PpB/A to 0 MPa, Pc to 0 MPa.

2281900 NS to 10 kN.