Biax Experiment

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

Revised: 30 Nov. 2021

Exp. Name: p5608WGSawcut600PPosc
Operator(s): Wood
Temperature (°C):
Relative Humidity (%):

Date/Time: 06/01/2022
Hydraulics start: 4896.1
Hydraulics end: 4906.8
Data Logger/Control File: 16-chan

Purpose/Description: DAET oscillate PP. Effect of roughness on nonlinear elasticity of dynamically-stressed rock. Sample Block Used and Thickness with **no** Sample: SDS Vessel 5x5 cm

Material: Westerly Grainite. Sawcut. 600 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	-0.996	0.15989, 1.67699, 2.18269, 2.76063, 3.33857, 4.20549
44mm Solid Vert	120.364 (V/MPa): 0.2676	0	3.716	3.716

Vessel Pressures: Pore Fluid:DI H2O

Calibrations (V/MPa)	Pressures (MPa)	Init. Voltage	Volt. @ load
Pc: 0.1456	2, 8.25 ,10.5, 12, 13.5, 12	-0.242	0.0492, 0.9592, 1.2868, 1.5052, 1.7236, 1.5052
PpA: 1.5177	2.6, 1.4	-0.123	3.82302, 2.00178
PpA: 1.483	2.6	-0.596	3.2598

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: 900	D_{atten}: 10
I: 80	Feedback: 512
D: 10	E-gain: 800
Vertical Servo Settings	
P: –	D_{atten} –
I: –	Feedback: –
D: –	E-gain: –

Chilled water at HPS	*Chiller Unit*	*Proc. water @ Chiller*
1. Temp In (°F): 56	6. Panel Temp (°F): 64	10. Temp In (°F): 78
2. Pres. In (psi): 6	7. Panel Pres. (psi): 46	11. Pres. In (psi): 2
3. Temp Out (°F): 76	8. Near Pres. In (psi): 2	12. Temp Out (°F): 48
4. Pres. Out (psi): 2	9. Near Pres. Out (psi): 5	13. Pres. Out (psi): 6
5. Flow (lpm): 15		
Hyd. Power Supply (HPS)		
14. Tank Temp (°C): 50.8	15. Temp. Out (°C): 15	16. Pres. Out (psi): 2700

Experiment Notes

923 NS @ 4 MPa
1950 Pc @ 2 MPa
2400 flow-through. PpA @ 1 MPa
4400 NS to 9.25 MPa, Pc to 8.25 MPa
5500 PpA & PpB to 2.6 MPa
8200 PpA to 1.4 MPa
50000 100 Hz. practice PpA oscillation.
58830 run1, run2. Problems recording run2 – repeat at end of experiment.
2669500 NS to 11 MPa, Pc to 10.5 MPa
2673000 run3, run4
5294480 NS to 13 MPa, Pc to 12 MPa
5294900 run5, run6
7937000 NS to 15 MPa, Pc to 13.5 MPa
7937200 run7, run8
10567300 NS to 18 Mpa, Pc to 12 MPa
10568000 run9, run10
13211050 hold for data transfer
13213650 Pc to 13.5 MPa, NS to 15 MPa
13213900 run11
13941950 Pc to 12 MPa, NS to 13 MPa
13942100 run12
14545175 Pc to 10.5 MPa, NS to 11 MPa
14545400 run13
15137530 Pc to 8.25 MPa, NS to 9.25 MPa
15137830 run14, run15
11770840 PpA & PpB to 0 MPa.
17771000 Pc to 0 MPa.
17773000 NS to 0 MPa.