

# Biax Experiment

**Exp. Name:** pxxxx  
**Operator(s):** Wood, Affinito, Marty

**Date/Time:** 24 Nov. 2020  
**Hydraulics start:** 3687.5  
**Hydraulics end:** 3694.7

*Sample Block Thickness w/ no gouge:*

*Layer Thickness (total on bench):* mm @sample

*Under Load:* mm

*Material (Qtz, Granite, ?):* WG, Saw-cut & 600-grit.

*Particle Size, Size Distribution :*

## Load Cells:

Contact Area: 0.0022292545 m<sup>2</sup>

Load cell name	Calibrations (mV/kN)	Target stress (MPa)	Init. Voltage	Volt. @ load
44mm Solid Horiz	119.3033 (V/MPa): 0.26596	1, 7, 10, 20	0.2158	0.48176, 2.0775 , 2.87537, 5.53495
44mm Solid Horiz	119.3033 (V/MPa): 0.26596		0.2158	

## Vessel Pressures:

Pore Fluid: DI H2O

	Calibrations (V/MPa)	Pressures (MPa)	Init. Voltage	Volt. @ load
<b>Pc</b>	Gain: 0.1456	6	-0.1222	0.75116
<b>PpA</b>	1.5177	5.0, 4.5, 4.25, 3.0, 2.5, 2.25	-0.308	7.2804 , 6.52156, 6.14214, 4.24504, 3.4862 , 3.10678
<b>PpB</b>	1.483	3.0, 3.5, 3.75, 1.0, 1.5, 1.75	-0.363	4.08606, 4.82757, 5.19832, 1.12002, 1.86153, 2.23228

**Data Logger Used:** 16 channel

**Horiz. DCDT:** short rod  
0.6438 mm/V

**Control File:** No

**Vert. DCDT:** Trans-Tek 2  
2.8498 mm/V

*Purpose/Description:* Permeability test of saw-cut sample roughened with 600-grit.

Compre this sample to sample sent to Andy Rathbun at Chevron for profilometry before DAET/PP osc. experiment.

*Acoustics Blocks used:* SDS L-block v2

something

something

something

Horiz. Servo Settings		Vert. Servo Settings	
<b>P</b>	<b>Datten</b>	<b>P</b>	<b>Datten</b>
<b>I</b>	<b>Feedback</b>	<b>I</b>	<b>Feedback</b>
<b>D</b>	<b>E-gain</b>	<b>D</b>	<b>E-gain</b>

© Hyd. Power Supply (HPS)	Chilled water at HPS	Chiller Unit	Process water at Chiller
14. Tank Temp. (C)	1. Temp. In (F)	6. Panel Temp. (F)	10. Temp. In (F)
15. Temp. Out (C)	2. Pres. In (psi)	7. Panel Pres. (psi)	11. Pres. In (psi)
16. Pres. Out (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)		

## Experiment Notes

# 230 NS @ 1MPa  
# 2750 NS ↗ 7MPa  
# 3400 Pc ↗ 6MPa  
# 4200 empty/refill Ppa/b  
# 5200 begin saturation, Ppa = 1.5 MPa  
# 10000 ↗ 10 Hz, adjust Ppa PID  
# 10000 ↗ 10 Hz, Ppa ↗ 5 MPa, Ppb ↗ 3 MPa  
# 31000 open Ppa valve, start flow  
# 41050 Ppa ↘ 4.5 MPa, Ppb ↗ 3.5 MPa, open Ppa valve  
# 52700 Ppa ↘ 4.25 MPa, Ppb ↗ 3.75 MPa, open Ppa valve  
# 62550 NS ↗ 10 MPa  
# 62800 ↗ 10 Hz, Ppa ↘ 3 MPa, Ppb ↘ 1 MPa, open Ppa valve  
# 68000 Ppa ↘ 2.5 MPa, Ppb ↗ 1.5 MPa, open Ppa valve  
# 72800 Ppa ↘ 2.25 MPa, Ppb ↗ 1.75 MPa, open Ppa valve  
# 77100 NS ↗ 20 MPa, Ppa ↗ 3 MPa, Ppb ↘ 1 MPa, open Ppa valve  
# 89000 Ppa ↘ 2.5 MPa, Ppb ↗ 1.5 MPa, open Ppa valve  
# 99700 Ppa ↘ 2.25 MPa, Ppb ↗ 1.75 MPa, open Ppa valve  
# 109300 ↘ 1Hz. Ppa, Ppb, Pc ↘ 0 MPa. NS ↘ 1 MPa.  
# 110530 NS ↘ 0 MPa.