Permeability and Velocity biaxial pressure tests – Experimental Plan

1. Before the test:

**Measure Core Dimensions**

Zero volumes in Pumpworks

Record trigger settings for velocity

Check liner length

Refill water in source tanks

**Make Dry weight measurement of sample**

* 1. Record Measurements

Record P wave

Switch to S1 trigger cable

Record vs1 measurements

Switch to S2 trigger cable

Record measurements – voltage

Turn off axial knob

Open radial knob, ramp pressure

**Zero potentiometer**

* 1. Record P wave

Record P wave

Switch to S1 trigger cable

Record vs1 measurements

Switch to S2 trigger cable

Record measurements – voltage

Turn off axial and radial knob

**Zero injected volumes**

1.3. Open Pore pressure knob

Outflow pressure to 10 psi

1.4. Raise pore pressure to 30 psi

Open downstream knob

**Zero upstream and downstream volumes**

Replace upstream pump water source with flask

Wait for equilibrium in flowrate

Calculate permeability

1.4**. Conduct B-tests, close pore pressure transducer connection to the pump, stop Pore pressure pump**

**Record injected fluid volume value**

**Permeability Tests**

Upstream Pump – Constant Rate Mode

Max Rate: 2 ml/min

Set Max pressure to desired pressure

Downstream Pump: Bidirectional const pressure (Mode 12)

Max Rate: 50 ml/min