47cm

**BLOCK 3**

32cm 77.5cm

**BLOCK 2**

17cm

**BLOCK 1**

42cm

Area for Each Block – 30ft/day

A17 = ((a17+b17)\*h17)/2

= ((42+44.5)\*17)/2

= 735.25cm2 = 0.073525m2

A32 = ((a32 + b32)\*h32)/2

= 671.25cm2 = 0.067125m2

A47 = (a47+ b47)\*h7/2

= (45+46)\*15)/2

=682.5cm2 = 0.06825m2

Using Q = V\*(A\*n)

**n=0.3, v=0.000106, 30ft/day**

Q17 = 0.000106\*(0.073525\*0.3)

= 2.338e-6m3/s

Q32 = 0.000106\*(0.067125\*.3)

= 2.1345e-6m3/s

Q47 = 0.000106\*(0.06825\*0.3)

=2.17035e-6m3/s

**Area for Each Block – 50ft/day, n=0.28**

Using Q = V\*(A\*n) n=0.28, v=1.7639e-4m/s

Q17 = 1.7639e-4\*(0.073525\*0.28)

= 3.6313e-6m3/s

Q32 = 1.7639e-4\*(0.067125\*.28)

= 3.3152e-6m3/s

Q47 = 1.7639e-4\*(0.06825\*0.28)

=3.3708e-6m3/s

Measured porosity in lab = 0.28

Flowrate pump(min) = 180mL/min = 3e-6m3/s

Flowrate pump (max) = 520mL/min = 8.67e-6m3/s