

SPECIFIC INJECTABILITY

Mean Specific injectability of RRG1-6 (Allman) for 10 minutes was 6.90 gpm/psig averaged from rate of 650 to 840 gpm at temperatures of 258°F and 500 min. In the present testing the 10 minute injectability was at 273.

a) initial attempt : 147 psia (10min) 4.08 gpm/psia. (500 min)

b) sustained test 149 psia (10min) 4.03 gpm/psia
(500 min)

These values are significantly lower than the values obtained in the January 1979 test (Allman). In order to compare injection efficiencies the following factors must be considered:

1. After 10 minutes of injection the bottom hole temperature is not known with any certainty because less than a casing volume has been injected and the upper casing volume contains the greatest temperature contrast in the borehole. Density and viscosity effects exert significant influence on well head temperature during this period.

A comparison after 500 minutes of injection when borehole temperature is quasi-stable gives the following

Jan 1979 $t = 500\text{ min}$ $T = ?$ 225 psia $Q = 700$ (3.11 gpm/psia)

March 1979 $t = 500\text{ min}$ $T = 263^{\circ}\text{F}$ 217 psia $Q = 600$ (2.76 gpm/psia)

This suggests a reduction in specific injectivity of 11%.