

MULTILATERAL JUNCTION FITTING FOR INTELLIGENT COMPLETION OF WELL

Abstract

A completion system and method for intelligent control of multilateral wells. A wye-shaped junction fitting defines a hollow interior that is fluidly coupled with the uphole tubing string and both downhole main and lateral completion strings. Hydraulic, electric, and/or fiber-optic communication line segments extend between the uphole end and both downhole ends of the junction fitting for providing power, control or communications between the surface and all production zones. The communication line segments are located outside the junction fitting interior and may be located within longitudinal grooves formed along the exterior wall surface of the junction fitting. Storable, wet-matable connectors may be provided at each end of the junction fitting, which connect the both interior flow paths and communication lines, and which may allow connection at any relative radial orientation.

[Figure 1]