

Phillips Petroleum Company
Plata Deep Unit Well No. 1-15, 20-S, 32-E, Lea County, New Mexico
Detail of Drill Stem Tests

Johnston DST #1 - Attempted DST in Bone Springs Sand at TD of 8775', packer failed.

#2 - Bone Springs Sand, TD 8875'. 4-1/2" DP, top packer at 8675', bottom packer 8680', 1/4" TC, 5/8" BC. Test interval 8680-8875'. Medium blow air immediately on initial open, strong blow final flow for 1 hr. Top gauge: IHyP 4202#, 5 min IOFP 125#, ISHyP 2060#, 60 min FOFP 145#, 60 min FS HyP 1257#, FHyP 4212#. Bottom gauge: IHyP 4156#, 5 min IOFP 119#, 60 min ISIP 2036#, IOFP 125#, 60 min FFP 145#, 60 min FSIP 1218#, FHyP 4181#. BHT 135 deg. Rec 2200' gas, 150' mud in DP, chlorides 600 ppm, pit mud 500 ppm. Resistivity 1.99 @ 70 deg. Rec 7/10 cu ft gas in sample chamber at 50#, no fluid.

#3 - Bone Springs Sand, TD @ 9690'. 4-1/2" DP, top packer at 9546', bottom pkr at 9552'. 1/4" TC, 5/8" BC. No blanket. Medium flow air 3 min IF, medium to weak blow on 90 min FF. Top gauge: IHyP 4544#, 3 min IOFP 116#, 60 min ISIP 325#, IOFP 116#, 90 min FOFP 116#, 120 min FSIP 1634#, FHyP 4558#. Bottom gauge: IHyP 4523#, 3 min IOFP 107#, 60 min ISIP 322#, IOFP 107#, 90 min FOFP 107#, 120 min FSIP 1604#, FHyP 4523#, BH temp 138 deg. Rec 840' gas in DP, 120' slightly gas cut drilling mud. Rec 1700 cc gas cut mud and no gas at sample chamber at 25#.

#4 - Lower Strawn, TD @ 11,937'. 4-1/2" DP, top packer at 11,856', bottom pkr at 11,862'. Interval @ 11,862-11,937'. 1/8" TC, 5/8" BC, 2437' water blanket. Top gauge: IHyP 7291#, 5 min IOFP 1097#, 90 min ISIP 7405#, IOFP 1097#, 120 min FOFP 1116#, 120 min FSIP 7158#, FHyP 7291#. Bottom gauge: IHyP 7179#, 5 min IOFP 1058#, 90 min ISIP 7296#, IOFP 1058#, 120 min FOFP 1058#, 120 min FSIP 7062#, FHyP 7147#. BH temp 167 deg. Air at once, gas in 3 hrs, TSTM. Rec 600 cc mud in sample chamber, 700 cc distillate, gvty 51.8, 3.8 cu ft gas at 800#, GOR 825. Gas to surface in one hr after tool SI.

#5 - Morrow Sand, TD @ 12,832'. 4-1/2" DP, top pkr at 12,688', bottom pkr at 12,694', interval at 12694-12832'. 1/8" TC, 5/8" BC, 3200' water blanket. Top gauge: IHyP 7871#, 5 min IOFP 1794#, 91 min ISIP 5420#, IOFP 1515#, 90 min FOFP 1515#, 120 min FSIP 4439#, FHyP 7871#. Bottom gauge: IHyP 7907#, 5 min IOFP 1535#, 91 min ISIP 5451#, IOFP 1573#, 90 min FOFP 1573#, 120 min FSIP 4469#, FHyP 7907#. BH temp 181 deg. Rec 3200' slightly gas cut water blanket, 100' drlg fluid. Rec 1 cc gas in sampler, no oil, 300 cc mud at 400#.

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