

Record of Drill Stem Tests

J.R. Phillips Well #7

- 2-2-49 DST #8. From 7600' to 7680' Packer set at 7600' w/5/8" Bottom & 1" Top choke. Perforations 7601' to 7602' & 7651' to 7677' Tool open at 4:00 A.M. Gas to surface in 30 minutes. Closed tool at 8:00 A.M. Packer pulled loose at 8:15 A.M. Recovered 280' ϕ mud Gas & sulphur water cut. Est. 3% Sulphur water, no free water, no oil, Howco Hydro. in 3550# out 3580#, Min. Flow pressure 120#, Max. Flow Pressure 120# 1/4 Hr. B.U.P. 350#, Amerada B.T. Chart Hydro. in 3610# out 3630# Min. Flow 80#. Max. Flow 125#, 1/4 hr. B.U.P. 350#
- 2-4-49 DST #9. From 7680' to 7720'. w/5/8" Bottom & 1" top Choke, Packer set at 7680' Perforations 7681' to 7682' & 7708' to 7714'. Tool opened at 7:10 A.M. Weak blow of air, gas to surface in 3 1/2 hrs., Tool Closed at 11:10 A.M. for 1/4 hr. BUP. recovered 150' Black Sulphur out ϕ mud. no oil, no water, Howco Hydro. in 3600# out 3600# flow press. 0# to 80#, 1/4 hr. BUP 200#. Amerada B.T. Chart Hydro in 3770# out 3615# Flow pressure 0# to 60#, 1/4 Hr. B UP 310#
- 2-14-49 DST. #10 From 8335' to 8360' w/ Packer set at 8335' w/5/8" Bottom & 1" Top choke. Perforations 8336' to 8357' Tool opened @ 5:35 A.M. good blow of air for 1/4 Min. & stopped, checked tool and reopened @ 5:50 A.M. no blow, closed tool at 6:35 A.M. Recovered 5' ϕ mud. Howco, Hydro. in 3950# out 3950#, no Flow pressure. no BUP. Amerada hydro. in and out 3950#, Flow pressure 20#, No BUP.
- ~~2-18-49~~ 2-18-49 DST #11. From 8460' to 8522' Packer set at 8460' w/5/8" Bottom & 1" Top Choke. Perforations 8461' to 8462' & 8516' to 8520', Tool opened at 1:10 P.M. faint blow of air to 4:00 P.M. No gas, tool closed at 5:00 P.M. for 1/4 hr. BUP. Recovered 3340' dry pipe & 5182' of Sulphur & salt water, no oil or gas. Howco Hydro. in 4140# out 4100#. Min. flow 470#, Max Flow 2400#, 1/4 hr. BUP 2400# Amerada chart Hydro in 4070# out 4070#, Min. Flow 300#, Max Flow 2345# 1/4 Hr. BUP 2445#
- ~~2-18-49~~ 3-7-49 DST #12. From 9465' to 9495' With Packers set at 9461' & 9465'. w/5/8" Bottom & 1" Top Choke. Perforations 9461' to 9491', Tool opened @ 10:30 P.M. Small blow of air for 25 mins. & died, Tool closed @ 11:55 P.M. tool open 1 hr & 25 Mins. Recovered 240' ϕ mud, no oil, gas or water, Howco Hydro. in 4550# out 4500#, Flow pressure 0# no BUP. Amerada B.T. Chart Hydro. in 4530# out 4480#, Flow pressure 0# no BUP. Packer Leaked .
- 3-14-49 DST #13. From 9710' to 9790'. Packers set at 9702' & 9710' w/5/8" Bottom & 1" Top Choke, Perforations 9770' to 9784' Tool opened at 9:17 P.M. with fair blow of air for 8 mins. & died, tool open 1 hr. & 8 mins. closed at 10:25 P.M. for 1/4 Hr. BUP recovered 15' ϕ mud no oil, gas or water. Howco Hydro. in 4800# out 4650#, 1/4 Hr. BUP 0# Amerada Hydro. in 4850# out 4780# Flow Pressure 0#, 1/4 hr. BUP. 0#
- 3-16-49 DST #14. From 9789' to 9840', Packers set at 9779' & 9789', w/5/8" Bottom & 1" Top Choke. Perforations 9812' to 9837'. Tool Opened at 12:27 A.M. gas up in 2 mins. Made 5.52 bbls. distillate in 4 hrs. Tool ~~opened~~ closed at 4:27 A.M. Gas Volume 3,330,00 cu ft. per day corrected gty. 60.1. Recovered 10' Pale green distillate, Howco. Hydro. in 4775# out 4700#, Initial flow 1850# Final flow 1225# 1/4 hr. BUP. 2825#, Amerada Chart Hydro. in 4710# out 4745#, Initial flow 1750# Final flow 1145#, 1/4 Hr. BUP 2885#
- 3-17-49 DST #15. From 9840' to 9865'. Packers set at 9832' & 9840', w/5/8" Bottom & 1" Top Choke, run 1500' water blanket, tool open at 9:32 P.M. Gas & water up in 3 mins. Distillate in 33 mins. tool closed at 2:05 A.M. Made .69 bbls. distillate, Packer pulled loose at 2:20 A.M. 40 mins. bleed down drill pipe, recovered 5' Distillate, Gas at start of test 4,200,000 end test 2,700,00 cu ft. per day, Gty. 62 corrected Howco. Hydro in 4775#, out 4700# Initial flow 2800# Final flow 1450# 1/4 hr. BUP 1910# Amerada Hydro. in 4850# out 4790# Initial flow 2610# Final flow 1120#, 1/4 hr. BUP. 2110#

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1. *Phragmites* (common)

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1. *Chlorophyll a* (Chl *a*)

1. The first step is to identify the key components of the system. This includes the hardware, software, and data. The hardware components are the physical devices that make up the system, such as the computer, the network, and the storage devices. The software components are the programs and applications that run on the hardware. The data components are the information that is stored and processed by the system.

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