

Arnott-Ramsay "E" #5

Ran 4-3/4" Lynes straddle pkrs on 2-3/8" tubing spaced 54' & Hydrafraced formation in 4 stages from 3169' to 3385'. 1st stage w/bottom pkr at 3331' and top pkr at 3277', broke formation from 3331' to 3385' from 4000# to 3200# w/20 bbls oil. Treated interval w/1500 gals Howco Hydrofrac gel, avg inj rate 192 gpm. Max pressure 4000#. CP 800#. Pumped in 1500 gals breaker fluid & displaced w/20 bbls oil. Broke formation between pkrs from 3277' to 3331' w/22 bbls oil from 3200# to 2800#. Treated interval w/1500 gals Howco Hydrofrac gel. avg inj rate 188 gpm. TP 3800#. CP 800#. Pumped in 1500 gals breaker fluid, displaced w/20 bbls oil. Moved bottom pkr to 3277'. Top pkr to 3223' & broke formation between pkrs from 3400# to 200# w/ 20 bbls oil. Treated interval w/1500 gals Howco Hydrofrac gel, avg inj rate 194 gpm. TP 2800#. CP 750#. Pumped in 1500 gals breaker fluid & displaced w/20 bbls oil. Moved bottom pkr to 3223' top pkr 3169' & broke formation w/24 bbls oil from 3500# to 2800# & treated interval w/1500 gals Howco Hydrofrac gel. Inj rate 194 gpm. TP 3400#, CP 800#. Pumped 1500 gals breaker fluid, displaced w/20 bbls oil. Pressure left on tubing 950#, CP 600#. Pkrs pulled up to 3150', pressure bled off to 600# after 12 hrs ending 7 PM 23rd. Pulled out, rigged up & ran 108 jts 3365' tubing. Tubing set at 3375.

RESULTS: Swabbed 150 bbls oil 15 bbls BS&W, shake out 10% BS&W. Flowed thru 2-3/8" tubing 3/4" choke. Gas vol 928,500 cu. ft. TP 190#. Casing pkr 0#. Flowed 38 bbls 36 gr oil, grind out 8% ES, no water. TP 130#. CP 0#. Gas Volume 79,400 cu. ft. Tested thru 2-3/8" tubing 3/4" choke, recovered 7 bbls oil. Gas Volume 79,400 cu. ft. TP 120#. Pumped in hole 20 bbls oil. Unseated packer & circulated 3 hrs. Unable to kill well. Displaced oil in hole w/74 bbls water. Recovered 75 bbls oil.