

Penwell Energy, Inc.  
Rifleman AFQ "32" State Com. #1

FORM C-103

- 5-1-96 Began re-entry operations @ 8:00 PM MST
- 5-5-96 Cemented 5 1/2" casing: Spotted cement plug w/65 sks. of Class "H" Neet cmt. @ 10,224'.
- 5-6-96 Ran 228 jts. of 5 1/2", 17#, N-80, 8rd, LTC csg. set @ 10,004'. Ran 25 centralizers and. Halliburton cemented first stage w/350 sks. of Class "H" Lite containing 1/2#/sk. Flocele + 1#/sk. Gilsonite + 5#/sk. salt + .4% Halad 322 mixed @ 12.7#/gal.; yield of 1.96 ft<sup>3</sup>/sk.; followed by 320 sacks of Class "H" Neet containing 5#/sk. salt + 3% Halad 322 + .3% Halad 344 mixed @ 16.0#/gal.; yield of 1.18 ft<sup>3</sup>/sk.; Plug down to 9,958' @ 9:00 A.M. MST 5-5-96. Opened D.V. Tool and circulated cement to surface. Cemented second stage w/550 sks. of Class "H" Lite containing 1/2#/sk. Flocele + 1#/sk. Gilsonite + 5#/sk. salt + .4% Halad 322 mixed @ 12.7#/gals., yield of 1.96 ft<sup>3</sup>/sk, followed by 100 sks. of Class H Neet. Plug down to 5,807 @ 1:30 P.M. MST 5-5-96. Rig released.
- 5-14-96 MIRU DA&S Well Service. Tagged cement @ 5761'. Pressure tested csg to 1000#. Held ok.
- 5-15-96 RU Halliburton. Spotted 150 gallons 10% acetic acid across intervals to be perforated. Reversed out acid top to bottom: 9729 to 9767.
- 5-16-96 PU & RIH w/Halliburton Van perforating guns, spacing jts. & Halliburton PLS production packer & 2 7/8", 8rd, EUE, N-80 tbg set @ 9692'. Perf'd Strawn formation w/3 3/8" casing guns @ 9729, 9736, 9739-48, 9751-67 (29 holes).
- 5-18-96 MIRU Halliburton. Acidized perfs. @ 9729 - 67' w/2000 gals. 15% NEFE HCL w/50 quality CO<sub>2</sub> (9tons) foam., flushed w/1600 gals. 2% KCL w/50 quality CO<sub>2</sub>. Formation broke @ 4480 psi. Min. 4260 psi.; max. 5735 psi.; avg. 5200 psi.; Min rate 5 BPM, avg rate 6 BPM, max. rate 6.3 BPM, ISIP 2400. Total acid 48 bbls. Total flush 38 bbls. Total fluid 86 bbls. Shut well in. RD Halliburton.
- 5-31-96 MIRU Halliburton Energy Services. Frac'd Strawn Sand perfs. @ 9729, 9736, 9739-48, 9751-67, Net 27', 29 holes w/25,500# 20/40 LWP Plus w/703 bbls. Alco-foam 287 bbls. liquid, 416 CO<sub>2</sub> foam (73 tons CO<sub>2</sub>). RD Halliburton. Flowing back frac load & CO<sub>2</sub>.