

- 05/21/94 RU BJ Services. frac zone #3 perfs 7323-7371' w/12,500 gals Spectra-frac G-3000, carrying 19,500# 20/40 Ottawa sand + 7500 # 20/40 resin coated sand as follows: (a) 750 gals 7 1/2% NEFE acid spearhead; (b) 1200 gals slick 2% KCl water spacer; (c) 6250 gals gel pad; (d) 500 gals gel + 1#/gal 20/40 sand; (e) 500 gals gel + 2#/gal 20/40 sand; (f) 1000 gals gel + 3#/gal 20/40 sand; (g) 1000 gals gel + 4#/gal 20/40 sand; (h) 2500 gals gel + 5#/gal sand; (i) 1250 gals gel + 6#/gal 20/40 resin coated sand; (j) flushed to top perf w/slick 2% KCl wtr. Avg pressure 1480 psi. Max pressure 2015 psi. Avg rate 8 BPM. ISIP 715 psi, 5 min 665 psi, 10 min 645 psi, 15 min 625 psi. 313 BLTR. Flow back well @ 1/4 BPM to release pressure. Had sand to surface in 3 1/2 hrs w/ 30 nsi tbq pressure. SIW. SDON to let sand fall.
- 05/22/94 15 hr SITP 0 psi. RU no-go & sinker bar on sand line. RIH & tagged SN. Tbg is clear. LD swab. Release pkr & RIH. Tag sand @ 7328'. 183' of fill. NU stripping head. Wash sand off of RBP & release same. Pull up & set RBP @ 7261'. Set pkr & test RBP to 2000 psi ok. Pull up & set pkr @ 7085' & isolate Zone 4 perfs 7156-7163'. Pressure tbq. Formation broke @ 2600 psi. Opened bypass & spot acid to pkr. Closed bypass. BJ Services frac zone 4 perfs w/9500 gals Spectra-frac G-3000, carrying 14,500# 20/40 Ottawa sand + 6000# 20/40 resin coated sand as follows: (a) 500 gals 7 1/2% NEFE acid spearhead; (b) 1200 gals slick 2% KCl wtr spacer; (c) 4500 gals gel pad; (d) 500 gals gel + 1#/gal 20/40 sand; (e) 500 gals gel + 2#/gal 20/40 sand; (f) 500 gals gel + 3#/gal 20/40 sand; (g) 1000 gals gel + 4#/gal 20/40 sand; (h) 1500 gals gel + 5#/gal 20/40 sand; (i) 1000 gals gel + 6#/gal resin coated sand; (j) flushed with slick 2% KCl wtr. Avg pressure 1900 psi. Avg rate 8 BPM. Pumped 34 bbls of 42.5 barrel flush and screened out. ISIP 765 psi, 5 min 645 psi, 10 min 450 psi, 15 min 265 psi. 236 BLTR. SIW. SDON.
- 05/23/94 18 hr SITP 0 psi. RU No-go & sinker bar on sand line. RIH & tag sand +/- 300' above SN. LD swab. Pressure backside. Open pkr bypass to reverse sand out. Tbg plugged off. Released pkr & POH. LD 23 jts plugged tbq & pkr. PU & redress pkr w/retrieving head & TIH. NU stripping head. Wash 170' sand off RBP & release. PU & set RBP @ 7064'. Set pkr & test RBP to 2000 psi, ok. PU & set pkr @ 6887' & isolate zone #5 perfs 7004-7011'. Pressured tbq. Formation broke @ 4900 psi. Opened bypass. Spot acid to pkr. Closed bypass. BJ Services frac'd zone #5 perfs w/1,500 gals Spectra-frac G-3000, carrying 14,500# 20/40 Ottawa sand + 6000# 20/40 resin coated sand as follows: (a) 500 gals 7 1/2% NEFE acid spearhead; (b) 1200 gals slick 2% KCl wtr spacer; (c) 4500 gals gel pad; (d) 500 gals gel @ 1#/gal 20/40 sand; (e) 500 gals gel + 2#/gal 20/40 sand; (f) 500 gals gel @ 3#/gal 20/40 sand; (g) 1000 gals gel @ 4#/gal 20/40 sand; (h) 1500 gal gel @ 5#/gal 20/40 sand; (i) 1000 gals gel + 6#/gal 20/40 resin coated sand; flush to top perf w/slick 2% KCl wtr. Avg pressure 1900 psi. Avg rate 8.3 BPM. Pumped less than 100# resin coated sand & ran out. Finish frac w/Ottawa sand. ISIP 900 psi, 5 min 820 psi, 10 min 760 psi, 15 min 720 psi. SIW. SDON. RD BJ Services. 286 BLTR.
- 05/24/94 12 hr SITP 60 psi. RU No-go & sinker bar on sand line. RIH & tag SN. Tbg clear. LD swab. Release pkr. RIH & tag sand @ 7015'. RU pump truck & wash sand off RBP & release same. POH & LD pkr & plug. PU & TIH w/Maralo 5 1/2" Baker Model "R" pkr on 220 jts tbq. Set pkr @ 6887' w/15 points. NU tree. Pressure backside to 1000 psi, ok. SIW. SDON.