

# MURJO FEDERAL #1

Spudded: 6/25/87 4:15 p.m.  
 Surface Casing: 359' 13-3/8" 48# J55 ST&C Set @ 350 w/350 sks CI C  
 PD 4:00 a.m. 6/26/87 - Circ 80 sks to surface - WOC 12 hrs  
 Intermediate Casing: 2779' 8-5/8" 24 & 32# ST&C J55 Set @ 2777' w/1000 sks  
 Hall Lite w/1/4# floreal & 6# salt per sk + 200 sks CI C w/2%  
 CaCl. Circ 200 sks to surf. PD 10:25 p.m. 6/28/87  
 DST #1: 7050-7090' Op 30 min w/very weak blow, blew 8 min & decreased to no blow.  
 closed 60 min, open 60 min w/no blow, closed 120 min.  
 Rec 33' GCDM. Sampler 60# 1800 cc gas cut drlg fluid w/very  
 sl trace oil.  
 In Hyd 3150-3251 2nd In Flow 11-54  
 In Flow 8-36 2nd Fin Flow 11-54  
 Fin Flo 8-36 2nd SI 128-163  
 2nd SI 96-109 Fin Hyd 3150-3251  
 DST #2: 9188-9285' Op 30 min, 5 bubbles -dec to no blow. Clos 60 min, Op 60 min  
 w/no blow. CI 120 min. Rec 45' drlg fluid. Sampler 26# 300 cc  
 drlg fluid no oil or gas. Temp 133  
 In Hyd 4329-4465 First SI 1942-1940  
 In Flo 85-91 Init Flow 85-91  
 Final Flow 85-91 Final Flow 85-91  
 Final SI 1188-1090  
 Fin Hyd 4329-4465  
 DST #3: 9610-9818' Rec 6500' gas cut oil & wtr. 1400' high gas cut oil-5100' form.  
 wtr. Oil throughout wtr. Sampler 2500 cc's gas cut form wtr.  
 .017' gas & 10 psi. Temp 139°. Gas to surf 50 min. Open 30  
 min, CI 60 min, Op 60 min, CI 20 min.  
 In Hyd 4790-5040 First SI 3388-3512  
 In Flow 574-636 Init Flow 1962-1671  
 Final Flow 1481-1537 Final Flow 2782-2871  
 Final SI 3388-3513  
 Hyd Out 4790-5040  
 Total Depth: 11,780'  
 Production Casing: 10,800' 5-1/2" 17 & 20# LT&C set & cmt'd @ 10,800' w/650 sks  
 CI H w/1/4# floreal, .5 of 1% Halad 22A, .3of1% VFR 3 and 5#  
 salt per sk. PD 1:30 a.m. 8/11/87. Press to 2500# held OK  
 PBTD: 10,760' Wireline: 10,744'  
 LOWER WOLFCAMP: Perforate: 10,648-51, 10,655-57', 10,664-74', 10,680-84',  
 10,706-13', 10,717-22', 10,726-26' w/1 spf.  
 Set Pkr @ 10,587'. Hughes Serv Acidized w/1500 gal 20%  
 NEFE & 60 ball sealers. Min Press 1.3 bpm @ 4600#, Max  
 Press 1.3 bpm @ 5250. ISIP 5050#, 5" 5050#, 10" 5040#,  
 15" 4900#.  
 UPPER WOLFCAMP: Perforated 10,172-78', 10,192-96', 10,206-208', 10,216-218',  
 10,221-223' w/1 spf (16'-21 holes) RBP @ 10,265'. Pkr 10,104'.  
 Acidized w/2500 gal 20% NEFE. Max press 5200# @ 3.5 bpm,  
 Min press 1500# @ 2 bpm. ISIP 600#, 5" 100#, AIR 2700# @  
 3.4 bpm.  
 BONE SPRING: Perforate 9619-20', 9633-35', 9638-40', 9648-54', 9657-70'.  
 Total 29 holes. Hughes Serv Acidize w/2500 gal 20% NEFE  
 & 60 ball sealers. Min Pres 2800# @ 1 bpm, Max Press 3700#  
 @ 1.2 bpm. Casing & tbg communicated. Reversed acid out of  
 tbg.  
 Reperf at same intervals; Reacidize w/2500 gal 20% NEFE & 60  
 ball sealers. Max press 3700# @ 1.7 bpm, Min Press 3400# @  
 2 bpm. ISIP 3300#, 5" 3200#.  
 Squeeze perfs 9619-70' w/1150 sks CI H, drl out retainer &  
 cmt.test to 1500# held OK.  
 Perforate 9726-43' w/1 spf. Acidized w/2000 gal 20% NEFE  
 & 36 ball sealers. Pump 750# @ 3.2 bpm, slow increase to  
 1300# @ 3.1 bpm, ISIP on vacuum.  
 BONE SPRING (Cont) Perforated 9192-96 & 9200-10' w/1 spf. Acidized w/2000 gal  
 15% NEFE & 28 ball sealers. Max press 4400# @ 3 bpm, Min  
 Press 3600# @ 2 bpm. ISIP 3150#, 5" 3000#, 10" 2900#, 15" 2800#.  
 CIBP @ 9560'. Fraced w/29,000# 20/40 sand & 484 bbl gelled  
 wtr. Pmp @ .5# to 4# per gal sand. Well screened out.  
 19,600# 20/40 sand & 428 bbl wtr on formation. AIR 12 bpm.  
 Avg press 6500#.  
 Perforated 8283-8426' w/1 spf. Acidized w/2500 gal 15% NEFE  
 & 54 ball sealers, Min press 3400# 3.2 bpm, Max press 4400#  
 @ 4 bpm. ISIP 2500#, 5" 2450#, 10" 2400# & 15" 2300#. Fraced  
 w/130,000# 20/40 sand & 1640 bbl Versagel. AIR 42 bpm. Avg  
 Press 3230#. ISIP 3200#, 5" 2830#, 10" 2770#, 15" 2740#.

Set retrievable bridge plug @ 8506'. Producing from First  
 Bone Spring Sand Perforations 8283-8426'.