

8/25/77	240	WOC. Spot 12-1/4" hole 8:30 pm 8/24/77. 12-1/4" to 248'. Set 5 jts 8-5/8" 341 F-55 S16C, 230.54', set @ 248.15' KB, cut w/250 sx CI "B" w/77 CaCl, gd circ thruout, cut circ. FO 5:15 am 8/25. Dr GS, Baffle, 2 centrals. Log: 1500' f/500' & 990' f/200' line Sec 24-27N-02, San Juan Co., New Mexico, FL 6571' GL. \$11,385
8/25/77	775	Drig, sd & sh. WOC, nip'd up & inst 10P. Tst csg & BOP @ 1000' f/45 min, held OK. Start new hole 12:15 am 8/26/77. 3/4" @ 575'. 60 RPM, 35M#. Mud: 8.8p, vis 28. B22, Sec., S-84S, in @ 248' & drlg, 527' in 5-3/4 hrs. \$16,334
8/27/77	2270	Drig, sd & sh. 1" @ 1230' & 1544', 2" @ 2045'. 70 RPM, 35M#. Mud: 9p, vis 28, WL 2/32, Ph 7.5. B-2, Sec., S-84S, 248-2545', 1797' in 20-1/2 hrs. B-3, Smith, F-3, in @ 2045' & drlg, 225' in 4-1/2 hrs. \$25,648
8/28/77	3109	TO. 2" @ 2357', 1-3/4" @ 2764', 1-3/4" @ 3014'. 70 RPM, 35M#. Mud: 8.8p, vis 28, WL 2/32, Sd 42. \$34,067
8/29/77	3580	Drig, sd & sh. 1" @ 3109', 1-1/4" @ 3420'. 60 RPM, 35M# Mud: 9p, vis 36, WL 14.2, FC 2/32, Sd 3/44. B-3, Smith F-3, 2045-3109', 1064' in 27-1/4 hrs. B-4, Smith, F-2, in @ 3109' & drlg, 471' in 20-3/4 hrs. \$39,143
8/30/77	4009	Drig sd and shale. 60 RPM, 35M#. 1" 3730'. Mud 9.1p, Vis 38, WL 10.4 cc, FC 2/32, Sd 1/25. Bit #4, Smith, F-2, in @ 3109', 891' in 44-1/4 hrs. \$43,778
8/31/77	4305	Drig sd and shale. 60 RPM, 35M#. Mud 9.1p. Vis 38, WL 14 cc, FC 2/32, Sd 1/25, Ph 7.2, 3/4" @ 4642'. Bit #4, Smith, F-2, in @ 3109'. 1156' in 63-1/4 hrs. \$48,147
9/1/77	4645	Drig sand and shale. 1/2" @ 4325' & 4636'. Mud 9.1p, Vis 38, WL 10.2 cc, FC 2/32, Sd 1/42, Ph 7.2, RPM 60, 35M#. Bit #4, Smith, F-2, in @ 3109', 1536' in 91-3/4 hr. \$52,313
9/2/77	4660	Drig sd and shale. 60 RPM, 35M#. 3/4" @ 4816'. Mud 9.2p, Vis 38, WL 8.4 cc, FC 2/32, Sd 1-1/25, Ph 6. Bit #4, Smith, F-2, in @ 3109' & out @ 4816'; 1297' in 104-2/4 hrs. Bit #5, Smith, F-2, in @ 4816' & drlg, 44' in 3-3/4 hrs. \$55,870
9/3/77	5010	Drig sd & sh. 50 RPM, 30M#. Mud: 9.2p, vis 38, WL 9, 2/32 FC, Ph 8. B-5, Smith, F-2, in @ 4816' & drlg, 194' in 20-1/2 hrs. \$59,840
9/4/77	5225	Drig sd & sh. 50 RPM, 30M#. Mud: 9.2p, vis 38, 9.2 WL, Ph 9. B-5, Smith, F-2, in @ 4816' & drlg, 409' in 44-1/4 hrs. \$62,915
9/5/77	5375	Logging. 50 RPM, 30M#. Mud: 9.4p, 50 vis, WL 12, FC 2/32, Ph 8.3. B-5, Smith, F-2, 4816-5375', 559' in 50 hrs. \$65,384
9/6/77	5375	Outg 2nd stage. Non Comp Downleg, Comp Reut & Dual Ind focused logs. Ran 13P jts 5-1/2" 15.504 Grd R-3 R-55 1700 5363', set @ 5375' KB. Boreco DV @ 4035', 8 cent., 23 recip scrat, Diff fill FC @ 5236'. Cut 1st stage w/150 sx 50-50 Bond. 12-1/2" gilsonite/sx, fol w/75 sx CI "B" neat, htm plug on 12:30 am. 9/6. Drop cnp load, ovm DV, circ 4 hrs. \$73,954
9/7/77	5375	WOC. Outg 2nd stage thru DV @ 4035' w/400 sx Hanco Lite w/10- gilsonite/sx, fol w/160 sx CI "B" neat, gd circ Chamber. FO 6 am. 9/6/77. Set slips w/ 78.0000, cut off 5-1/2" csg. Kel rig & a.m. 9/6/77. \$115,939
9/8/77	5375	TD - NO completion. \$115,939
9/9/77	5375	TD - NO completion. \$115,939
9/10-11/16	5375	TD - NO completion. \$115,939
11/17/77	5375	TD - Prep to PU 2-7/8" log, bit & scraper & drill out DV tool. RI & RU Farmington Well Service. \$119,358
11/18/77	5375	TD - Prep to log, perf, acidize & frac today. Ran 4-3/4" bit & 5-1/2" csg scraper on 2-7/8" log. Drld 26' of cut & DV tool. Ran bit & scraper to PDL. 5321' (the logs). Displ hole w/25 RI wtr. 5000. \$121,916
11/19/77	5321	FD - Prep to run log, CO sd, kick off. FOH w/lig, bit & scraper. RU D-4. Ran CH w/zer den. & GC-Correl logs. Perfd Newverde 1 jet co @ 5305', 03', 01' 5206', 04', 16', 14', 12', 10', 03', 06', 04', 02', 5200', 5197', 504', 94', & 90', 10 holes. Ran thg w/Bkr full bore pkr, spot 3 15ls acid over perfs, 12 6 jts thg, set phr 5135'. Ac Bv perfs 5190-5304'OV w/1500 gal 15. HCL, 25 ball sealers, balled off w/12 15ls ac in thg, Bv 3500, trip press 1300s, 18 3 BPM, bled off press, rel phr & lower thru perfs to back off balls, PDM w/ thg & phr. RU Western. Set 4-ater frac perfs 5190-5304'OV on 5-1/2" csg w/21 RI wtr w/2" fric reducer/1500 gals @ 37" lhd loss additi. 3/1 30 gal in 1st 1450 15ls (fric reducer in all HCL wtr) & 20-40 sd: 20,000 gal pod @ 250' @ 30 BPM; 16,000 gal w/1/2" /gal @ 300' @ 37 BPM; 9000 gal w/1" sd/gal @ 210' @ 30 BPM; 14,000 gal w/1.5" sd/gal @ 1000' @ 33 BPM; 21,000 gal w/2" sd/gal @ 1700' @ 30 BPM; 5000 gal flush @ 3000', total 65,000 gal, 60,000 sd. 100 200s, RIF 2500s, min 1500s, ATR 34 BPM @ ATR 20532. JO 9:30 pm 11/19. 5000. \$143,650

11/20/77 5321 PB - SD w/c Sunday. Ran 2-7/8" tlg to top sd @ 5196', CO sd w/H2 & foam to 5316' (MLPB). Pld tlg up to 5162', Hook up H2 to csg, pr csg to 500' w/H2. Did not kick off, ran out of H2. SD over weekend. \$146,827

11/21/77 5321 PB - SD w/c Sunday. Prep KO w/H2. \$146,827

11/22/77 5321 PB - Prep to sub. Hooked up Howseco & pr csg & circ H2 til well kicked off. Flud 1-1/2 hrs & died. Made 3 runs w/sub & well kicked off. Flud 1 hr & died. Subd 2 hrs, making small cut gas. Left opn to pit thru 3/4" ch. CP 2807, had been 4007. This am, tlg dead, CP 6257. \$149,161

11/23/77 5321 PB - Cont to sub. Subd 9 hrs, rec'd approx 85 bbls muddy wtr, making snl am gas, flow 15-20" after pull, then die, wtr clearing 1 end, Q end 260' fld. 6d bit distillate. 8 a.m. 11/22, TP 07, CP 6207; 12 noon TP 07, CP 2807; 5 p.m. TP 107, CP 1257. Left opn to pit 0'nite on 3/4" ch. 8 a.m. 11/23 CP 6007, TP 07. \$150,327

11/24/77 5321 PB - SD w/c Holiday. Subd 9 hrs, 1-2 runs/hr, rec'd approx 80 PF, vy snl and condensate, est 24. Approx 800 MCFFD after pull, dec to 100 MCIPD in 30 min, then dies. 8 am, TP 07, CP 6007; 10:50 am, TP 07, CP 3257; 12 noon TP 07, CP 2757; 5:15 pm TP 07, CP 1557. SI & SD f/holiday 5:30 p.m. \$151,477

11/25/77 5321 PB - Cont to flw & test. This am, 38.5 hrs SICP 8007, opn to pit 8:05 a.m. 11/25, KO, pitot tube 3072 MCFFD, 3:20 a.m. 11/25, CP 4757. \$151,477

11/26/77 5321 PB - Cont sub & flwg. 8:05 am 11/25, 38.5 hr SICP 8007, opn to pit & KO, pitot tube 3072 MCFFD, flwg gas & wtr, died in 1 hr, CP 2507. Ran sub & KO, died 10:15 am. Cont'd sub 1 run/hr, flw after ea pull, est 600 MCFFD & dec to 0. Est rec'd 40 LW. Lower tlg to top sd @ 5222', left opn to pit 0'nite, KO & flw little to pit during nite.

11/27/77 5321 PB - Opn to pit. Unit dn a/c Sunday. 8 am yest, flwg to pit w/3257 CP. Died 9 am. Sub 9 hrs, 1 pull/hr, flwg est 100 MCFFD inched behind sub, dec to 75 MCIPD at end of hr. Rec'd approx 40 LW, left opn to pit. \$153,969

11/28/77 5321 PB - Opn to pit. Prep to CO sd w/H2, FOH, set Rod "D" unit dn a/c Sunday. \$153,969

11/29/77 5321 PB - Prep spot acid & frac. RU Howseco. CO 110' sd to PB 5316' (ML meas.) w/H2 & foam. Pld 2-7/8" tlg. Set Bkr Rod "D" w/expandable plug @ 5150' (GR collar log meas.). Dap 15 gal 20-40 sd on phr. Fill hole w/21 KCl wtr. Perf Chacra 3822', 3823', 3824', 3825', 3826', 3827', 3828', 3829', 3830', 3831' & 3832', 1 jet shot each. (GR collar meas.) SDON. \$160,182

11/30/77 5321 PB - Prep to mass Chacra. Kill well. Pull tlg & CO sd. RU Halliburton & sp 500 gal 15% HCl across Chacra perfs. Pld 2-7/8" tlg. RU & frac Chacra dn 5-1/2" csg w/20,000 20-40 sd, 24,550 gals 21 KCl slick wtr, 27/1000 gal frie reducer, 307/1000 gal fld loss additive, fr broke 950', frac as follows: 4000 gal fld, 13507, 22 BPH; 4000 gals 1/2s/gal, 13107, 24 BPH; 6000 gals 17/gal, 13007, 23 BPH; 4000 gals 1-1/2s/gal, 12007, 23 BPH; 5000 gals 27/gal, 11507, 22 BPH; 3500 gals flush, 13007, 22 BPH. ISIP 7507, 15 min SIP 4507. Ran in hole w/2-7/8" tlg to 3900' to check f/sd. Hole clean. Pld tlg up to 3007'. PU start sub, KO in 2 hrs. Flwg hv wtr spray. Left flwg to pit. \$167,842

12/01/77 5321 PB - Prep to run 2-1/16" IJ tlg. CO sd w/Howseco. 8 am Chacra flwg to pit. CP 2807, 2400 MCF. Loaded hole & killed w/HCl wtr. Lower tlg to check sd. Found 381' sd on Rod "D" phr. Pld & LD 2-7/8" tlg. Removed LDP & tlg head. Inst'd Langer & tlg head & BOP. \$168,616

12/02/77 5321 PB - Prep to KO Hv. Ran 2-1/16" tlg & CO sd on top of phr @ 5150'. Landed 2-1/16" CO 3.252 B-60 IJ top w/seal assembly @ 5162' LF. Landed 1.59" RU IJ 2.762 J-65 tlg @ 5320' KB. Howseco pop plug out of seating nipple on short string. Attempted to pop expendable check out of long string. Howseco pop not working right. May not have popped out. SD on account of darkness. Left Chacra flwg to pit thru csg 0'nite. \$196,650

12/03/77 5321 PB - Flwg Hv. Cont tlg to pit, opnd Hv to pit. Expend check plug was prod out. Left Hv flwg to pit. SI Chacra. RD & moved to Southern Ute #2-2. Tlg rd 11/27/77. \$196,650

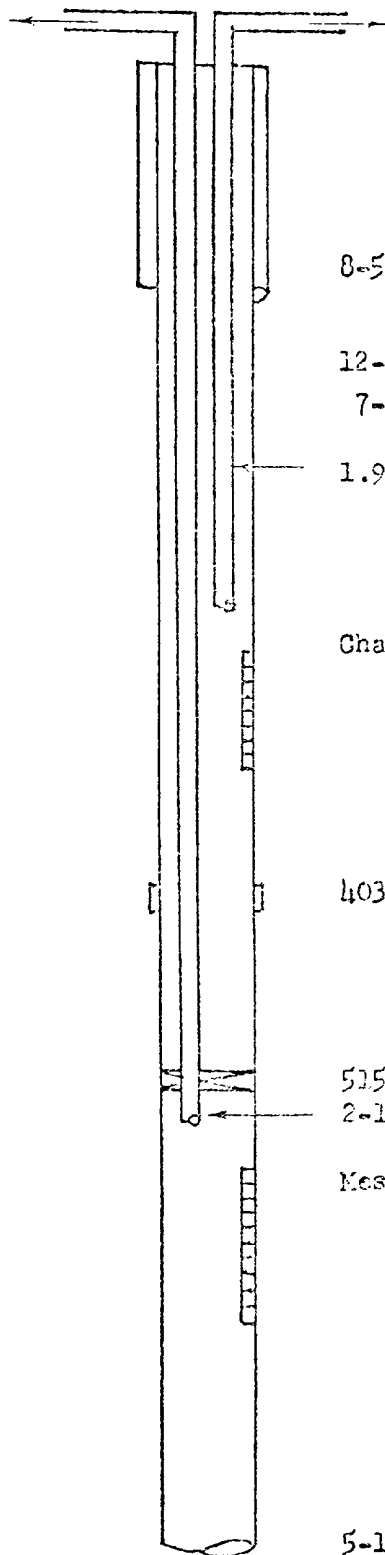
12/04 & 05 5321 PB - Well SI to run phr leakage & potential tests. SI Hv @ 9:00 am 12/3/77. At 2:00 pm Hv TP 6007, Chacra 6507. \$198,803

12/06-20/77 5321 PB - SI f/phr leakage test. \$198,803

12/21/77 5321 PB - Confirmed 645 Mbl 12/19/77. 9 day Howseco SITP 947, 3 hr test 12/1 flw f rate of 495 Mbl, 11/27/77, 3/4" ch, perfs 5190-5304' OA. 9 day Chacra SITP 5162' OA, 3 hr test on 12/18, flw f rate of 2297 MCFFD, ITP 3227, 11/27/77, 3/4" ch, perfs 3822-32' OA. \$198,803

SCHEMATIC

Marron WN Federal Com., Well #6-A
Unit I, Section 24-27N-8W
San Juan County, New Mexico
Administrative Order No. MC-2400



8-5/8"OD 34# K-55/^{ST&C}casing set at 246.15'KB, cmt'd w/250 sx Cl. "B" w/
2% CaCl, cement circulated, good circ'n thruout.
2- Centralizers.

12-1/4" hole to 248'.

7-7/8" hole to T.D.

1.90"OD 2.76# J-55 IJ tubing landed at 3827.96' - Chacra String

Chacra Perfs - 1 jet shot each at:

3822, 3823, 3824, 3825, 3826, 3827, 3828, 3829, 3830,
3831, 3832 (11 shots)

4035' HOWOC Stage Collar - Cmt'd 2nd stage w/400 sx HOWOC Lite w/
10% gilsonite/sx, followed w/100 sx Class "B" neat.

5150' Baker Mod. "B" Production Packer

2-1/16 "OD 3.25# N-80 IJ tubing (incl. prod'n. tube, seal assy., subs)
landed @ 5162.20'.

Mesaverde Perfs - 1 jet shot each at:

5190, 5192, 5194, 5196, 5198, 5200, 5202, 5204, 5206, 5208,
5210, 5212, 5214, 5216, 5218, 5220, 5301, 5303, 5304 (19 shots)

5-1/2"OD 15.5# 8rd R-3, 128 jts LT20, set at 5375'KB, cmt'd 1st stage w/
150 sx 50-50 Poz w/ 12.5# gilsonite/sack, followed w/ 75 sx
Class "B" neat. 8 Centralizers, 23 reciprocating scratchers.

TOTAL DEPTH
5375'