

END OF WELL SCHEMATIC

Well Name: San Juan 32-8 # 239A
API #: 30-045-32396
Location: 2035' FNL & 705' FWL
 Sec. 30 - T32N - R8W
 San Juan County, NM
Elevation: 6679' GL (above MSL)
Drl Rig RKB: 13' above Ground Level
Datum: Drl Rig RKB = 13' above GL

Spud: 18-Aug-04

Release Drl Rig: 22-Aug-04

Move In Cav Rig: 31-Aug-04

Release Cav Rig: 26-Sep-04

Note - this well is equipped with rods & pump

7-¹/₁₆" 3M x 2-³/₈" EUE 8rd Bonnet

11" 3M x 7-1/16" 3M Tubing Head

9-5/8" 8 RD x 11" 3M Casing Head

Surface Casing Date set: 19-Aug-04
 Size 9 5/8 in
 Set at 230 ft # Jnts: 5
 Wt. 32.3 ppf Grade H-40
 Hole Size 12 1/4 in Conn STC
 Excess Cmt 125 %
 T.O.C. SURFACE

Csg Shoe 230 ft

TD of 12-1/4" hole 240 ft

Notified BLM @ 15:15 hrs on 17-Aug-04
 Notified NMOCD @ 15:18 hrs on 17-Aug-04

Intermediate Casing Date set: 21-Aug-04
 Size 7 in 74 jts
 Set at 3205 ft 0 pups
 Wt. 20 ppf Grade J-55
 Hole Size 8 3/4 in Conn STC
 Excess Cmt 160 %
 T.O.C. SURFACE
 Pup @ ft
 Pup @ ft

Top of Float Collar 3159 ft

Bottom of Casing Shoe 3205 ft

TD of 8-3/4" Hole 3205 ft

Notified BLM @ 10:00 hrs on 20-Aug-04
 Notified NMOCD @ 10:00 hrs on 20-Aug-04

Production Liner Date set: 23-Sep-04
 Size 5 1/2 in
 Nominal Wt. 15.5 ppf
 Grade J-55 Connections: LTC
 # Jnts: 10
 Hole Size 6.25 / 9.5 inches
 Underreamed 6-1/4" hole to 9.5" from 3212' to 3640'
 Top of Liner 3184 ft
 PBTD 3638 ft
 Bottom of Liner 3640 ft

This well was cavitated.

Surface Cement

Date cmt'd: 19-Aug-04

Lead : 150 sx Class G Cement

+ 2% BWOC S001 CaCl2

+ 0.25 lb/sx D029 Cellophane Flakes

1.16 cuft/sx, 174 cuft slurry at 15.8 ppg

Displacement: 14.7 bbls fresh wtr

Bumped Plug at: 10:05 hrs w/ 768 psi

Final Circ Press: 141 psi @ 0.5 bpm

Returns during job: YES

CMT Returns to surface: 15 bbls

Floats Held: No floats used

W.O.C. for 6.00 hrs (plug bump to start NU BOP)

W.O.C. for hrs (plug bump to test csg)

Intermediate Cement

Date cmt'd: 22-Aug-04

Lead : 420 sx Class G Cement

+ 3% D079 Extender

+ 0.25 lb/sx D029 Cellophane Flakes

+ 0.2% D046 Antifoam

+ 0.05 gal/sx D047 Antifoam

2.61 cuft/sx, 1096.2 cuft slurry at 11.7 ppg

Tail : 100 sx 50/50 POZ : Class G cement

+ 2% D020 Bentonite

+ 2% S001 Calcium Chloride

+ 5 lb/sx D024 Gilsonite

+ 0.25 lb/sx D029 Cellophane Flakes

+ 0.2% D046 Antifoam

1.27 cuft/sx, 127 cuft slurry at 13.5 ppg

Displacement: 128.0 bbls

Bumped Plug at: 00:30 hrs w/ 1350 psi

Final Circ Press: 710 psi @ 2.0 bpm

Returns during job: YES

CMT Returns to surface: 25 bbls

Floats Held: X Yes ___ No

UNCEMENTED LINER

Schematic prepared by:
 Steven O. Moore, Drilling Engineer
 28-Sept-2004

COMMENTS:

9-5/8" Surf:	No float equipment was run. Ran a guide shoe and an aluminum baffle plate 1 jt above the guide shoe @ 187'. Displaced top wiper plug with water. Shut in casing head and WOC before backing out landing jt. CENTRALIZERS @ 221', 143', 99', 59'. Total: 4
7" Intermediate	DISPLACED W/ 128 BBLs. FRESH WATER. CENTRALIZERS @ 3195', 3112', 3032', 2946', 2860', 2774', 210', 84', 40'. TURBOLIZERS @ 2260', 2217', 2174', 2131'. Total: 9 Total: 4
5.5" Liner	Ran 6-1/4" bit & bit sub w/ float on btm of liner. Ran liner w/ TIW H-Latch Drop Off Tool (no liner hanger).
Perforations	Perforated 5-1/2" liner with guns on E-line at 4 spf, 0.75" diameter, 120 degree phased holes Perf. Intervals: 3228'-3232', 3240'-3246', 3254'-3258', 3272'-3276', 3284'-3290', 3348'-3353', 3356'-3364', 3386'-3389', 3418'-3426', 3428'-3434', 3447'-3456', 3458'-3462', 3464'-3470', 3481'-3491', 3562'-3565'. TOTAL SHOTS = 344.
Tubing	2-7/8" EUE 8rd box Orange Peeled Mud Anchor with eight each 0.25" x 8" slots just below the upset, 2-7/8" x 2-3/8" EUE 8rd crossover collar, 2-3/8" OD expendable check, 2-3/8" OD (1.78" ID) F-Nipple, 113 jts 2-3/8" 4.7# J-55 EUE 8rd tubing and w/ 2' - 6' - 8' x 2-3/8" EUE 8rd subs under top jt of tubing. Bottom of Mud Anchor at 3628'. F-Nipple at 3596' MD RKB.
Pump & Rods	12" long strainer attached below 1-1/2" RWAC-Z insert pump with 3 ea 25' x 1-1/4" OD sinker bars on top of pump 140 ea 3/4" OD rods, spaced out with 2' - 6' - 8' x 3/4" OD pony rods & 1 ea 1-1/4" OD x 22' polished rod Set pump in F-Nipple at 3596' MD RKB