

ConocoPhillips

END OF WELL SCHEMATIC

Well Name: San Juan 32-8 #226A
 API #: 30-045-32294
 Location: 1090' FSL & 1070' FEL
Sec. 15 - T31N - R8W
San Juan County, NM
 Elevation: 6518' GL (above MSL)
 Drl Rig RKB: 13' above Ground Level
 Datum: Drl Rig RKB = 13' above GL

Note - this well is equipped with rods & pump
 7-1/16" 3M x 2-7/8" EUE 8rd Bonnet
 11" 3M x 7-1/16" 3M Tubing Head
 9-5/8" 8 RD x 11" 3M Casing Head

Spud: 10-Aug-04
 Release Drl Rig: 14-Aug-04
 Move In Cav Rig: 19-Aug-04
 Release Cav Rig: 26-Aug-04

Surface Casing Date set: 11-Aug-04
 Size 9 5/8 in
 Set at 232 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 232 ft
 TD of 12-1/4" hole 240 ft

Notified BLM @ 20:06 hrs on 09-Aug-04
 Notified NMOCD @ 20:10 hrs on 09-Aug-04

Intermediate Casing Date set: 13-Aug-04
 Size 7 in 73 jts
 Set at 3135 ft 0 pups
 Wt. 20 ppf Grade J-55
 Hole Size 8 3/4 in Conn STC
 Excess Cmt 160 % Top of Float Collar 3089 ft
 T.O.C. SURFACE Bottom of Casing Shoe 3135 ft
 Pup @ ft TD of 8-3/4" Hole 3140 ft
 Pup @ ft

Notified BLM @ 08:02 hrs on 12-Aug-04
 Notified NMOCD @ 08:04 hrs on 12-Aug-04

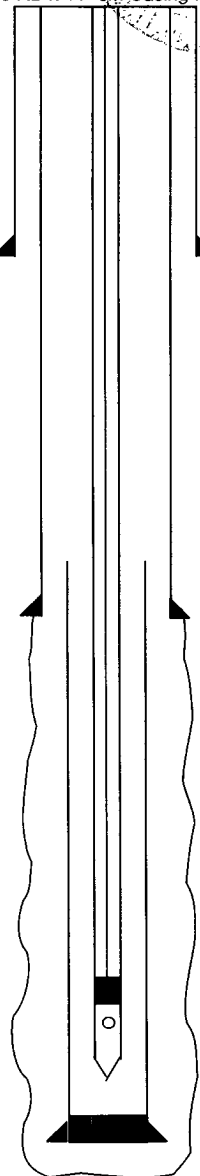
Production Liner Date set: 25-Aug-04
 Size 5 1/2 in
 Nominal Wt. 15.5 ppf
 Grade J-55 Connections: LTC
 # Jnts: 9
 Hole Size 6.25 / 9.5 inches
 Underreamed 6-1/4" hole to 9.5" from 3156' to 3481'
 Top of Liner 3087 ft
 PBTD 3479 ft
 Bottom of Liner 3481 ft

This well was NOT cavitated.

☒ New
☐ Used

☒ New
☐ Used

☒ New
☐ Used

TD 3,481 ft**Surface Cement**

Date cmt'd: 11-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: 14.9 bbls fresh wtr
 Bumped Plug at: 04:00 hrs w/ 315 psi
 Final Circ Press: 140 psi @ 0.6 bpm
 Returns during job: YES
 CMT Returns to surface: 10
 Floats Held: No floats used
 W.O.C. for 6.00 hrs (plug bump to start NU BOP)

Intermediate Cement

Date cmt'd: 13-Aug-04
 Lead : 410 sx Class G Cement
+ 3% D079 Extender
+ 0.25 lb/sx D029 Cellophane Flakes
+ 0.2% D046 Antifoam
+ 0.05 gal/sx D047 Antifoam
2.61cuft/sx, 1070.1 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 Gilsomite
+ 0.25 lb/sx D029 Cellophane Flakes
+ 0.1% D046 Antifoam
1.27 cuft/sx, 127 cuft slurry at 13.5 ppg
 Displacement: 125.2 bbls
 Bumped Plug at: 23:15 hrs w/ 1220 psi
 Final Circ Press: 690 psi @ 2.0 bpm
 Returns during job: YES
 CMT Returns to surface: 45 bbls
 Floats Held: X Yes No

UNCEMENTED LINER

Schematic prepared by:
 Steven O. Moore, Drilling Engineer
 8-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 @ 192'. Displaced top wiper plug with water. Shut in casing head and WOC before backing out landing jt. CENTRALIZERS @ 222', 147', 104', & 60'. Total: 4
7" Intermediate	DISPLACED W/ 20 BBLs. FRESH WATER AND 105.2 BBLs SLIGHTLY POLYMERIZED 8.4PPG DRILLING MUD. CENTRALIZERS @ 3091', 3051', 2964', 2878', 2791', 2704', 210', 81', & 37'. TURBOLIZERS @ 2318', 2275', 2231', & 2191'. Total: 9 Total: 4
5.5" Liner	Ran 6-1/4" bit & 3-1/2" OD bit sub with float on bottom 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: 3166'-3170', 3180'-3184', 3256'-3270', 3320'-3328', 3330'-3336', 3364'-3368', 3371'-3378', 3381'-3394'. TOTAL SHOTS 240.
Tubing	30.74' x 2-7/8" OD 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 (1.78" ID) F-Nipple 108 jts 2-3/8" 4.7# J-55 EUE 8rd tubing Bottom of Mud Anchor at 3455'. F-Nipple at 3423' MD RKB.
Pump & Rods	12" long strainer attached below 1-1/2" RWAC insert pump, 1 ea 2' x 3/4" OD rod sub above pump 136 ea 25' x 3/4" OD rods, space out with 1 ea 4' and 1 ea 8' rod subs & 1 ea 1-1/4" OD x 22' polished rod Set pump in F-Nipple at 3423' MD RKB