

ConocoPhillips

## END OF WELL SCHEMATIC

Well Name: San Juan 29-6 # 241A  
 API #: 30-039-27870  
 Location: 1404' FSL & 1351' FEL  
Sec. 19 - T29N - R6W  
Rio Arriba County, NM  
 Elevation: 6254 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 2-1/8" EUE 8rd Bonnet  
 11" 3M x 7-1/16" 3M Tubing Head  
 9-5/8" 8 RD x 11" 3M Casing Head

Spud: 13-Sep-04Release Drl Rig: 16-Sep-04Move In Cav Rig: 9-Dec-04Date TD Reached: 11-Dec-04Release Cav Rig: 16-Dec-04

**Surface Casing** Date set: 13-Sep-04  
 Size 9 5/8 in  
 Set at 235 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 235 ft  
 TD of 12-1/4" hole 245 ft

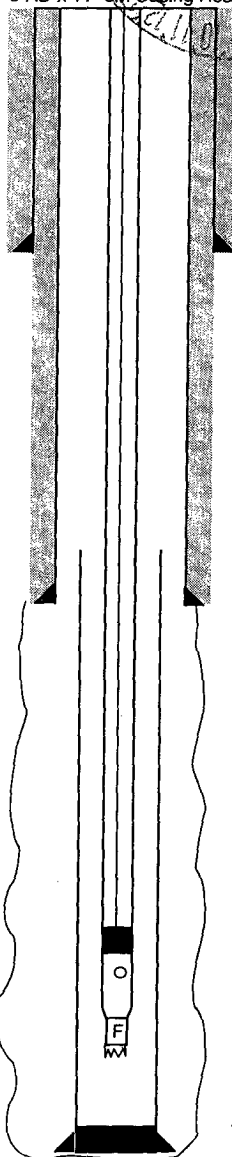
Notified BLM @ NA hrs on NA  
 Notified NMOCD @ 15:50 hrs on 11-Sep-04

**Intermediate Casing** Date set: 15-Sep-04  
 Size 7 in 70 jts  
 Set at 2975 ft 0 pups  
 Wt. 20 ppf Grade J-55  
 Hole Size 8 3/4 in Conn STC  
 Excess Cmt 160 % Top of Float Collar 2929 ft  
 T.O.C. SURFACE Bottom of Casing Shoe 2975 ft  
 Pup @ NA ft TD of 8-3/4" Hole 2985 ft  
 Pup @ NA ft

Notified BLM @ NA hrs on NA  
 Notified NMOCD @ 23:10 hrs on 14-Sep-04

**Production Liner** Date set: 14-Dec-04  
 Size 5 1/2 in  
 Nominal Wt. 15.5 ppf  
 Grade J-55 Connections: LTC  
 # Jnts: 6  
 Hole Size 6.25 / 9.5 inches  
 12-Dec-04: Underreamed 6-1/4" hole to 9.5" from 2980' to 3200'  
 Top of Liner 2931 ft  
 PBTD 3199 ft  
 Bottom of Liner 3200 ft

This well was NOT cavitated.

TD 3,200 ft**Surface Cement**Date cmt'd: 13-Sep-04

Lead : 150 sx Class G Cement  
 + 2% BWOC S001 CaCl2  
 + 0.25 lb/sx D130 Cellophane Flakes  
1.16 cuft/sx, 174.0 cuft slurry at 15.8 ppg

Displacement: 15.2 bbls fresh wtrBumped Plug at: 09:08 hrs w/ 290 psiFinal Circ Press: 65 psi @ 0.4 bpmReturns during job: YESCMT Returns to surface: 5 bbls ( 28.1 cuft )Floats Held: No floats usedW.O.C. for 4.87 hrs (plug bump to start NU BOP)W.O.C. for 9.50 hrs (plug bump to test csg)**Intermediate Cement**Date cmt'd: 15-Sep-04

Lead : 385 sx Class G Cement  
 + 3% D079 Extender  
 + 0.25 lb/sx D029 Cellophane Flakes  
 + 0.2% D046 Antifoam  
2.61 cuft/sx, 1005 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 Antifoam1.27 cuft/sx, 127.0 cuft slurry at 13.5 ppgDisplacement: 119.0 bblsBumped Plug at: 23:20 hrs w/ 1400 psiFinal Circ Press: 680 psi @ 3.2 bpmReturns during job: YesCMT Returns to surface: 30 bbls ( 168.4 cuft )Floats Held: X Yes \_\_\_ No**UNCEMENTED LINER**

Schematic prepared by:  
 Steven O. Moore, Drilling Engineer  
 21-Dec-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 @ 190'. Displaced top wiper plug with water. Shut in casing head and WOC before backing out landing jt. CENTRALIZERS @ 225', 147', 103', 59'. Total: 4
7" Intermediate	DISPLACED w/ 20 BBLs. FRESH WATER AND 112 BBLs SLIGHTLY POLYMERIZED 8.4 PPG DRILL WATER. CENTRALIZERS @ 2965', 2887', 2801', 2715', 2632', 2546', 202', 72', 33'. Total: 9
	TURBOLIZERS @ 2461', 2418', 2375', 2332'. Total: 4
5.5" Liner	14-Dec-04: Ran bladed shoe w/ float valve on btm of liner. Ran liner w/ TIW H-Latch Drop Off Tool (no liner hanger).
Perforations	14-Dec-04: Perforated 5-1/2" liner with guns on E-line at 4 spf, 0.75" diameter, 120 degree phased holes Perfs: 2980'-2986', 2995'-3010', 3014'-3024', 3026'-3030', 3032'-3038', 3042'-3056', 3084'-3089', 3092'-3110'. TOTAL SHOTS = 312.
Tubing	15-Dec-04: Ran 2-1/16" notched collar, 2-1/16" OD x 1.50" ID Seating Nipple, 2-1/16" x 2-3/8" crossover, 2-3/8" OD mud anchor joint with 1/2" hole drilled just below the upset, 2-3/8" OD (1.78" ID) F-Nipple, 100 jts 2-3/8" 4.7# J-55 EUE 8rd tubing. Bottom of Notched Collar at 3185', 2-1/16" OD x 1.5" ID Seating Nipple at 3184'. 2-3/8" OD x 1.78" ID F-Nipple at 3151'.
Pump & Rods	15-Dec-04: Ran 12" long strainer attached below 1-1/4" insert pump with 3 ea 25' x 1-1/4" OD sinker bars on top of pump 122 ea 3/4" OD rods, 1 ea 8' and 1 ea 6' x 3/4" OD Rod Subs, & 1 ea 1-1/4" OD x 22' polished rod Set pump in F-Nipple at 3150' MD RKB