

**END OF WELL SCHEMATIC**Well Name: **San Juan 32-7 # 210A**API #: **30-045-32353**Location: **2400' FSL & 800' FEL**

Sec. 36 - T32N - R7W

San Juan County, NM

Elevation: **6464' GL (above MSL)**Drl Rig RKB: **13' above Ground Level**Datum: **Drl Rig RKB = 13' above GL**Spud: **2-Jul-04**Release Drl Rig: **6-Jul-04**Move In Cav Rig: **11-Nov-04**Date TD Reached: **13-Nov-04**Release Cav Rig: **16-Dec-04****Surface Casing**Date set: **3-Jul-04**☒ New  
☐ UsedSize **9 5/8** inSet at **233** 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 **233** ftTD of 12-1/4" hole **240** ftNotified BLM @ **09:10** hrs on **01-Jul-04**Notified NMOCD @ **09:10** hrs on **01-Jul-04****Intermediate Casing**Date set: **5-Jul-04**☒ New  
☐ UsedSize **7** in **72** jtsSet at **3063** ft **0** pupsWt. **20** ppf Grade **J-55**Hole Size **8 3/4** in Conn **STC**Excess Cmt **160** % Top of Float Collar **3018** ftT.O.C. **SURFACE** Bottom of Casing Shoe **3063** ftPup @  ft TD of 8-3/4" Hole **3065** ftPup @  ftNotified BLM @  hrs on Notified NMOCD @  hrs on **Production Liner**Date set: **14-Dec-04**☒ New  
☐ UsedSize **5 1/2** inNominal Wt. **15.5** ppfGrade **J-55**# Jnts: **7**Hole Size **6.25 / 9.5** inches

14-Nov-04: Underreamed 6-1/4" hole to 9.5" from 3070' to 3355'

Top of Liner **2994** ftPBSD **3305** ftBottom of Liner **3306** ft

The liner got stuck 49' off bottom.

This well was cavitated.

2-9/16" 5M Tree

7-1/16" 3M x 2-9/16" 5M Adapter

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

2-5/8" 8" RD x 11" 3M Casing Head

**Surface Cement**Date cmt'd: **3-Jul-04**Lead : **150** sx Class G Cement+ **2%** BWOC S001 Calcium Chloride+ **0.25** lb/sx D029 Cellophane Flakes**1.16** cuft/sx, **174.0** cuft slurry at **15.8** ppgDisplacement: **15.0** bbls fresh wtrBumped Plug at: **03:30** hrs w/ **475** psiFinal Circ Press: **135** psi @ **2** bpmReturns during job: **YES**CMT Returns to surface: **17** bbls ( **95.4** cuft )Floats Held: **No floats used**W.O.C. for **4.00** hrs (plug bump to start NU BOP)W.O.C. for **9.00** hrs (plug bump to test csg)**Intermediate Cement**Date cmt'd: **5-Jul-04**Lead : **395** sx Class G Cement+ **3%** D079 Extender+ **0.25** lb/sx D029 Cellophane Flakes+ **0.2%** D046 Antifoam**2.61**cuft/sx, **1031.0** cuft slurry at **11.7** ppgTail : **100** sx 50/50 POZ : Class G cement+ **2%** D020 Bentonite+ **2%** S001 Calcium Chloride+ **5** lb/sx D024 Gilsontite+ **0.25** lb/sx D029 Cellophane Flakes+ **0.2%** D046 Antifoam**1.27** cuft/sx, **127** cuft slurry at **13.5** ppgDisplacement: **122** bbls Fresh WtrBumped Plug at: **21:45** hrs w/ **1440** psiFinal Circ Press: **900** psi @ **2** bpmReturns during job: **YES**CMT Returns to surface: **30** bbls ( **168.4** cuft )Floats Held: ☒ 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 @ 189'. Displaced top wiper plug with water. Shut in casing head and WOC before backing out landing jt. CENTRALIZERS @ 223', 145', 102' & 59'. Total: 4
7" Intermediate	Displaced w/ 122 bbls Fresh Water. CENTRALIZERS @ 3053', 2975', 2888', 2801', 2715', 2634', 205', 76' & 32'. TURBOLIZERS @ 2461', 2418', 2375', & 2331'. Total: 9 Total: 4
5.5" Liner	14-Dec-04: Ran 6-1/4" bit & bit sub with float valve on btm of liner. Ran liner w/ TIW H-Latch Drop Off Tool (no liner hanger).
Perforations	15-Dec-04: Perforated 5-1/2" liner with guns on E-line at 4 spf, 0.75" diameter, 120 degree phased holes Perfs: 3102'-3108', 3110'-3114', 3176'-3186', 3188'-3194', 3198'-3212', 3222'-3235', 3292'-3295'. TOTAL SHOTS = 224.
Tubing	15-Dec-04: Ran 2-7/8" OD Expendable Check, 2-7/8" OD x 2.25" ID Profile F-Nipple, 102 Jts 2-7/8" 6.4# J-55 EUE 8rd Tubing & 1 ea 8' x 2-7/8" EUE 8rd Tubing Sub, EOT / Btm of Expendable Check at 3230'. 2-7/8" OD x 2.25" ID F-Nipple at 3229'.