

## Well Name: Keinath Federal 9-12H2 (C100U)

Location: Piceance Basin, Colorado  
Field: Orchard  
API#: 05045203250000  
Surface Location: NENW Sec 10-T8S-R96W 6th PM  
BH Location: NWSW Sec 10-T8S-R96W 6th PM  
KB: 22 ft  
TD: 13,680 ft  
Float Collar: 13,564 ft  
80 deg Dev @: 9300 ft  
KOP: 8000 ft  
Average TVD: 8530 ft



Conductor:	20.0" 53# A53D Grade
Set at:	40 ft
Top of Cement:	Surface

Surface Casing:	10.75" 40.5# J-55 ST&C
Set at:	1,549 ft
Top of Cement:	Surface

Intermediate Casing:	7-5/8" 29.7# P110 LT&C
Set at:	7,490 ft
Inclination at Intern. CSG Point:	1.4 deg
Burst Pressure:	9,470 psi (75% = 7,102 psi)
Top of Cement (Stage1):	3,280 ft DV Tool: Not Run
Top of Cement (Stage 2):	N/A ft

Production Casing:	5.0" 23.2# (T95 from 0' to 7876', P110 from 7876' to TD)
Inside Diameter:	4.044" Drift: 3.919"
Set at:	13,650 ft
TVD Average:	8,530 ft
Burst Pressure:	16,730 psi (75% = 12,500 psi)
Top of Cement:	2,895 ft (from 8/17/11 CBL)

Production Tubing:	269 JTS 2-3/8" 4.7# L-80 EUE TBG
Set at:	8,815' MD on 10/15/2011

7-5/8" Intermediate CSG:  
Top of Cement = 3,280' MD

5.0" Production CSG  
Top Of Cement = 2895'

7-5/8" Intermediate CSG set @ 7,490' MD

5.0" 23.2# P110/T95 VAM SFC Production CSG

Float Collar =	13,564	ft
End of CSG =	13,650	ft
Total MD =	13,680	ft

Niobrara Perfs from 8,660' to 13,440'