



# NIGHTHAWK PRODUCTION LLC

Big Sky 12-11  
 NW SW Sec 11, T6S, R54W  
 LINCOLN COUNTY, COLORADO  
 API No. 05-73-06556-00

**ELEVATION**

R.B. 5236'  
 G.L. 5221'  
 KB 15'  
 BHT 212'  
 BHP  
 Spud date: 10/10/13  
 TD date: 10/26/13  
 Completion

Lat: 39.54156  
 Long: -103.41457  
 2096 FSL 629 FWL

Not to scale

Prepared By: Bill McKnab  
 Date: 12/18/2013

**Geological tops:**

Niobrara	3740	Cherokee	7425
Dakota	4593	Atoka	7586
Stone Correl	5997	Morrow	7870
Wolfcamp	6208	Spergen	8109
LKC	6912	Granit Wasl	8296
Marmaton	7244	TD	8385

Drilled hole 12 1/4"

**SURFACE CSG: 8 5/8" 24# J55 ST&C @ 337'**  
 Cmt: 114 sks class "G", 14# 1.54 yield

Production Tubing

Drilled hole 7 7/8"

**Production Casing: 5 1/2" 17# N80 LT&C @ 8,375'**  
 Cmt: Lead: 742 sks, 12 PPG, 1.79 yield  
 Cmt: Tail: 283 sks, 13 PPG 1.66 yield  
 TOC

5 1/2" 17# J55  
 I.D. 4.892  
 Drift 4.767  
 Burst 7,260  
 Lin ft/bbl 43.01  
 BBL/linft 0.0232

2 7/8" J55 EU 8RD  
 I.D. 2.441  
 Drift 2.347  
 Burst 7,260  
 Lin ft/bbl 172.7500  
 BBL/linft 0.00579

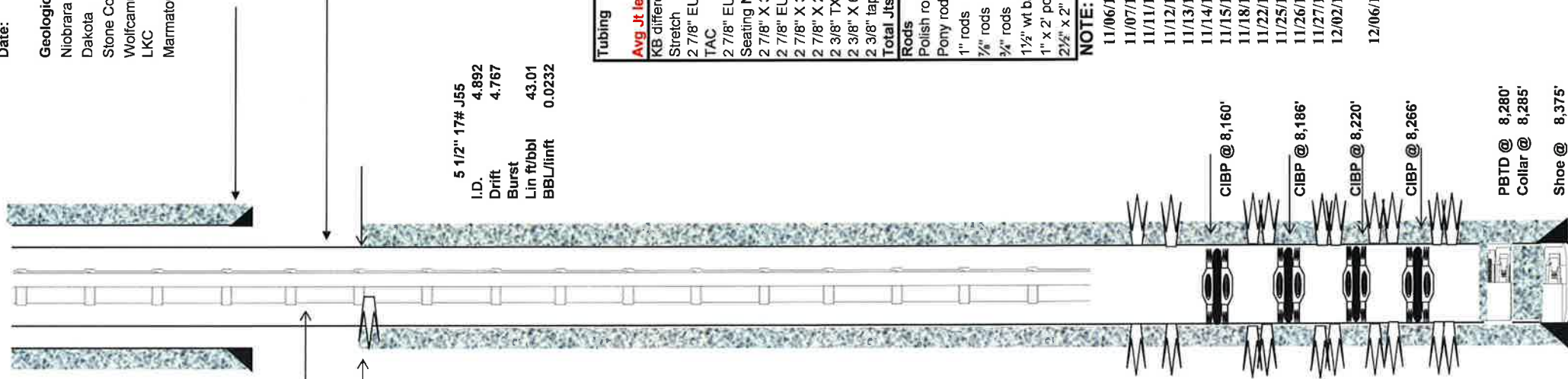
2 7/8" X 5 1/2"

Tubing	Qty	Length	Depth in hole
<b>Avg Jt length</b>	<b>32.24'</b>		
KB difference		13.00'	13.00'
Stretch		2.20'	15.20'
2 7/8" EU 8RD J55 tbg	244	7,864.50'	7,879.70'
TAC		2.80'	7,882.50'
2 7/8" EU 8RD J55 tbg	6	195.60'	8,078.10'
Seating Nipple		1.10'	8,079.20'
2 7/8" X 3' Perforated pup jt		3.10'	8,082.30'
2 7/8" EU 8RD J55 tbg	1	32.50'	8,114.80'
2 7/8" X 3' Perforated pup jt		6.10'	8,120.90'
2 7/8" X 2 3/8" X over		0.50'	8,121.40'
2 3/8" TXN nipple 1.875" 1.791 No go		1.00'	8,122.40'
2 3/8" X 6' pup jt		8.00'	8,130.40'
2 3/8" tap bull plug		0.50'	8,130.90'
<b>Total Jts</b>	<b>251</b>		
<b>Rods</b>			
Polish rod 1 1/2" x 22' w/19/2" x 16' Line	1	12'	12'
Pony rod 1" x 6'	1	6'	18'
1" rods			18'
7/8" rods MMS	149	3,725'	3,743'
3/4" rods S-88	161	4,025'	7,768'
1 1/2" wt bars	10	250'	8,018'
1" x 2' pony rod	1	2'	8,020'
2 1/2" x 2" X 26" RWBC	1	26'	8,046'

**NOTE:**

- 11/06/13 Perf 8,270'-8,282'
- 11/07/13 Broke perfs 8,270'-8,282' w/150 bbls produced wtr.
- 11/11/13 Set CIBP @ 8,266', Perf 8,226'-8,258'
- 11/12/13 Broke perfs 8,226'-8,238' w/150 bbls produced wtr.
- 11/13/13 Set CIBP @ 8,220', perf 8,192'-8,206', swab water @ 9 bph
- 11/14/13 Set CIBP @ 8,186', perf 8,166'-8,176'
- 11/15/13 Set CIBP @ 8,160', perf 8,134'-8,146'
- 11/18/13 Run BHP recorders
- 11/22/13 Retrieve BHP recorders
- 11/25/13 Acidize with 3,000 gals 7 1/2% Acetic
- 11/26/13 Set WRBP @ 8,130', perf 8,106'-8,126'
- 11/27/13 Run BHP recorders
- 12/02/13 Retrieve BHP recorders, Acidize w/3,000 gals 7 1/2% Acetic Acid
- 12/06/13 Pull WRBP

8,106'-8,126'  
 8,134'-8,146'  
 8,166'-8,176'  
 8,192'-8,206'  
 8,226'-8,258'  
 8,270'-8,282'



PBTD @ 8,280'  
 Collar @ 8,285'  
 Shoe @ 8,375'

TD 8,385'