



NIGHTHAWK PRODUCTION LLC

Snow King 9-32
NE SE Sec 32, T6S, R54W
LINCOLN COUNTY, COLORADO
API No. 05-73-06637-00

Prepared By: Harold Mayland
Date: 5/12/2015

ELEVATION
R.B. 5339'
G.L. 5324'
KB 15'
BHT
BHP
Spud date: 12/16/14
TD date: 01/04/15
Completion 02/26/15

Surface location
Lat: 39.483560
Long: -103.456070
2540' FSL 660' FEL

TOC 1,376'

Production Tubing

Not to scale

Geological tops:

Niobrara	3785	Marmaton	7314
Dakota	4655	Cherokee	7538
Stone Correl	6038	Atoka	7753
Wolfcamp	6376	Morrow	8034
Shawnee	6715	Spergen	8274
LKC	7053	Simpson	8361

Drilled hole 12 1/4"
SURFACE CSG: 8 5/8" 24# J55 ST&C @ 378'
Cmt: 200 sks class "A", 14# 1.54 yield
6 bbls cmt to surface

Drilled hole 7 7/8"
Production Casing: 5 1/2" 17# N80 LT&C @ 8,481'
Cmt: Lead: 885 sks 12 TXI. 12 PPG, 1.80 yield
Cmt: Tail: 306 sks 13TXI. 13 PPG 1.89 yield
3sks cmt to surface

5 1/2" 17# N80	
I.D.	4.892
Drift	4.767
Burst	7,740
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"	
I.D.	2.441
Drift	2.347
Burst	7,260
Lin ft/bbl	65.71
BBL/linft	0.0152

TUBING	Qty	Length	Depth in hole
Avg Jt length			
KB difference		13.00'	13.00'
Stretch		3.20'	16.20'
2 7/8" EU 8RD J55 tbg	232	7,316.20'	7,332.40'
TAC		2.70'	7,335.10'
2 7/8" EU 8RD J55 tbg	6	189.32'	7,524.42'
Seating Nipple		1.10'	7,525.52'
2 7/8" X 6' Perforated pup jt		6.20'	7,531.72'
2 7/8" EU 8RD J55 tbg	1	31.56'	7,563.28'
2 3/8" tap bull plug.		0.50'	7,563.78'
Total Jts	239		7,563.78'
Rods			
Polish Rod 1 1/2" x 30' w/1 1/4" x 16' Li	1		
Pony rod 1" X 4" MMS	1		
1" Rod MMS	100		
7/8" Rods MMS	98		
3/4" Rods MMS	88		
1 1/2" K-Bars w/ 3/4" X 4' guided pony	10		
Pump		2 1/2" x 2" x 26" RHWBC BNC	

NOTE:

01/15/15 Perf 8,320'-28'
01/19/15 Set CIBP @ 8,315'. Perf 8,304'-10'
01/20/15 Set CIBP @ 8,100' w/ 2 sks cmt. Perf 7,482'-88'
01/21/15 Acidize 7,482'-88' w/1000 gal 15% HCL
01/26/15 Set RBP @ 7,476', perf 7,458'-64'
01/27/15 Acidize 7,458'-64' w/1000 gal 15% HCL
02/04/15 Acidize 7,458'-64' w/2000 gal 15% acidic acid.
02/05/15 Pull WRBP f/7,476
02/06/15 Set RBP @ 7,420', perf 7,358'-74'
02/09/15 Pumped 2500 gal 7 1/2% acedic acid, 1000 gal solvent.
02/12/15 Pulled RBP from 7,420'
02/13/15 Set RBP @ 7,475', PKR @ 7,422'
02/16/15 Acidize 7,458'-64' w/4000 gal 20% gelled HCL.
02/18/15 Pulled RBP from 7,475'
02/19/15 Acidize 7,482'-88' w/4000 gal 20% HCL, Communicated with 7,458'-64'
03/26/15 Perf 6,724'-38', Set RBP @ 6,820'
03/30/15 Perf 6,406'-16', Set RBP @ 6,500'
03/31/15 Acidize 6,406'-16' w/ 1500 gal 15% HCL
04/02/15 Acidize 6,406'-16' w/ 1500 gal 15% HCL
04/03/15 Pulled RBP f/ 6,500', Set CIBP @ 7,340'

Wolfcamp
6,406'-6,416'

Shawnee
6,724'-6,738'

Marmaton
7,358'-7,374 KH

7,458'-7,464'

7,482'-7,488' 60% oil

Spergen
8,304'-8,310' wet

8,320'-8,328' wet

CIBP @ 7,340'

CIBP @ 8,100'

W/ 2 sks cmt

CIBP @ 8,315'

PBTD @ 8,356'

Collar @ 8,389'

Shoe @ 8,481'

TD 8,510'