

NIGHTHAWK PRODUCTION LLC

Blackcomb 12-14
NW SW Sec 14, T6S, R54W
LINCOLN COUNTY, COLORADO
API No. 05-73-06610-00

Prepared By: Harold Mayland
Date: 9/22/2016

ELEVATION
R.B. 5210'
G.L. 5,195'
KB 15'
BHT
BHP
Spud date: 06/13/14
TD date: 08/05/14
Completion 08/28/14

Surface location
Lat: 39.527400
Long: -103.414280
2245' FSL 640' FWL

Not to scale

Geological tops:

Niobrara	3745	Cherokee	7403
Dakota	4558	Atoka	7559
Stone Correl	5951	Morrow	7817
Wolfcamp	6128	M2	7972
LKC	6858	M1	8008
Marmaton	7201	Spergen	8045
		Simpson	8146

Drilled hole 12 1/4"
SURFACE CSG: 8 5/8" 24# J55 ST&C @ 352'
Cmt: 175 sks class "A", 14.8# 1.54 yield
5 bbls cmt to surface

Drilled hole 7 7/8"
Production Casing: 5 1/2" 17# N80 LT&C @ 8,445'
Cmt: Lead: 908 sks 12 TXI. 12 PPG, 1.80 yield
Cmt: Tail: 310 sks 13TXI. 13 PPG 1.89 yield
30 sks cmt to pit

Production Tubing

5 1/2" 17# N80	2 7/8" J55 EU 8RD	2 7/8" X 5 1/2"
I.D. 4.892	I.D. 2.441	
Drift 4.767	Drift 2.347	
Burst 7,740	Burst 7,260	
Lin ft/bbl 43.01	Lin ft/bbl 172.7500	Lin ft/bbl 65.71
BBL/linft 0.0232	BBL/linft 0.00579	BBL/linft 0.0152

TUBING	Qty	Length	Depth in hole
Avg Jt length		31.50'	
KB difference		12.00'	12.00'
2 7/8" EU 8RD J55 tbg	254	8,002.10'	8,014.10'
2 7/8" On-Off w/2.31" profile		1.82'	8,015.92'
5 1/2" x 2 7/8" ASI Packer		6.90'	8,022.82'
2 7/8" EU 8RD J55 tbg	1	31.56'	8,054.38'
			8,054.38'
			8,054.38'
Total	255		8,054.38'

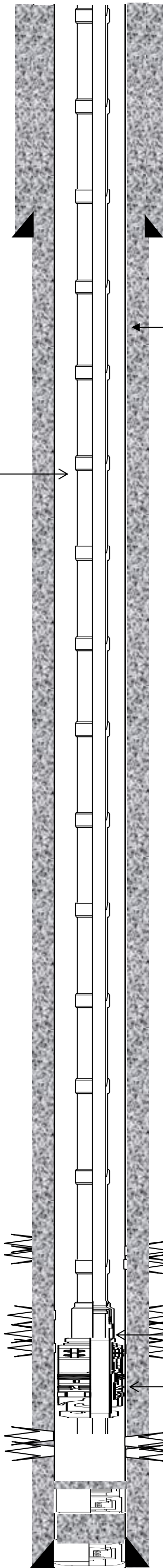
NOTE:

- 08/20/14 Perf 8,080'-8,090'.
- 10/28/14 Set RBP @ 7,411', Perf 7,316'-26'
- 10/30/14 Acidize 7,316-26' w/2000 gal 15% HCL
- 11/14/14 Squeezed perms 7,316'-26'
- 11/20/14 Reperf 7,313'-23'
- 11/21/14 Acidize 7,313-23' w/2500 gal 15% HCL
- 11/25/14 Squeezed perms 7,313'-23'
- 12/04/14 Perf 7,220'-28' set RBP @ 7,305'
- 12/08/14 Acidize 7,220'-28' w/1200 gal 15% HCL
- 12/09/14 Pumped 32 bbls 2% KCL @ 7,220-28'
- Pulled RBP F/7,305'
- 12/12/14 Pulled RBP F/7,411'
- 04/17/15 Reperf 8,080'-90'
- 04/20/15 Pumped 4500 gal 2% KCL w/ 1000 gal Acetone, 500 gal Ethanol, @ 8,080'-90'.
- 08/25/15 Pumped 12,000 gal 2% KCL mixed w/2,000 gal acetone and 1,000 gal ethanol @ 8,080-90'.
- 08/04/16 Fishing to 08-09-16
- 08/10/16 Squeeze 7220-7228' w/30 sks Class "G"
- 08/16/16 Reperf 7,319'-21' and resqueeze w/ 30 sks Class "G"
- 08/16/16 Perforate 8,072'-8,090' 6 SPF 0.46" dia hole, 108 holes
- 08/23/16 Pumped 6000 gal 2% KCL w/1000 gal acetone, 750 gal Ethanol

Marmaton
7,220'-7,228' Squeezed

7,313'-7,323' Squeezed
7,316'-7,326' Squeezed

Spergen
8,072'-8,080'
8,080'-8,090'



PBTD @ 8,351'
Collar @ 8,356'

Shoe @ 8,445'

TD 8,445'