

KOP: 2,500'TVD  
 Build & Hold: 45°  
 Build Rate: 2°  
 Az: 144.54  
 Total Departure: 6,091'

Sussex - 4,584'

Shannon - 5,280'

Sharon Springs - 8,000'

Niobrara - 8,035'

Codell - 8,481'

J Sand - 9,183'

Minnekahta - 10,574'

Blaine - 10,808'

Lyons - 10,866'

L. Satanka - 11,092'

Wolfcamp - 11,400'

Amazon - 11,523'

Council Grove - 11,600'

Admire - 11,724'

Virgil - 11,773'

Fountain - 12,014'

PBTD 11,660'  
 TVD 9,868'  
 MD 12,259'

24" Hole

Conductor Casing: 16", 42.09#/ft set @ 111' Cemented to Surface with approx. 260 sacks.

Drilling Mud

12 1/4" Hole

Surface Casing: 9 5/8", 36 #, J-55. Set @ 1,039', Cemented to Surface with approx. 310 sacks.

8 3/4" hole

Annulus Fluid: Inhibited water

Injection Tubing: 4 1/2", 11.60 lb/ft. L-80, LTC, TK-99, KC Set in PBR @ 10,526' Minimum ID: 3.875"

DV Tool @ 6,892' - Cement to 856' w/ 765 sacks.

Protection Casing: 7", 26 #, P-110, LTC, Set @ 10,601', Cemented to 6,892' w/ 392 sacks.

S-3 Liner Top Packer w/15' Nickel Coated PBR (10,526' - 10,550').

4 1/2", 11.6 lb/ft, L-80 LTC Solid Liner (10,550' - 10,851').

ECPs (2) (10,851' - 10,870')

Slotted Liner: 4 1/2", 11.6 lb/ft, L-80, LTC. (TOL @ 10,870'; EOL @ 11,660' in 6 1/8" Open Hole).

15.8 lb/gal Cement Plug (11,665' - 11,775')

Cement Retainer @ 11,775'

9.8 lb/gal Drilling Mud

**EWS #3A**  
**SWNW, Sec, 23, T4N-R66W 6th PM**  
**Weld County, CO**  
**Lat. 40.29771 Long. -104.75023**

Note: **All depths are MD referenced to Kelly Bushing,**  
 13 ft. above Ground Level.  
 True KB elevation 4,726' above sea level.



## Wellbore Diagram EWS #3A

2016 EWS No. 3A Drilling & Completion Report

Scale: NTS	Date: 2-3-2017
01_EWS_No3a_Wellbore.ai	By: JLM Checked: WJ

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