

Grynberg Petroleum Tigertail Federal #2-3

API # 05-123-40775-00

Current Schematic 8/22/15, with proposed abandonment plugs and whipstock plug for Sidetrack #1.

40 feet of 16" Conductor
Cmt'd to surface 8/9/15

Surf Casing 18jts, 807' of 9 5/8 36# J-55 set at 803' KB
Cmt with 358sx BJ Type 3, 14.5 PPG, yield 1.4cuft/sx
Circulated 3 bbls to surface 8/12/2015. No fall back.

Elevation 4887'

Spud Date: 8/12/20015
1982' FSL & 1985' FEL
NWSE Sec. 2-T7N-R64W
Weld Co., CO

8 3/4" hole drilled to 9430' TD 8/21/2015

Mud Log Tops

Niobrara 6751
Ft. Hays 7034
Codell 7066
Carlile 7082
J Sand 7530
Dakota SS 7784
Morrison SH 7936
Entrada SS 8122
Lykins (Redbeds) 8206
Blaine Anhydrite 8620
Lyons 8910
Lower Satanka 9254
Wolfcamp 9298
TD 9430

Proposed Sidetrack #1

KOP-6222. Drill lateral 2657' North to BHL 650FNL 1985FEL, Sec 2
6795TVD, 9206 MD, 1757' Total Lateral

Proposed Plugs:

Whipstock Plug #1: 150' above and 100' below the Kick Off Point of 6222'.
250' Height from 6072'- 6322', 135 sx Class G @17.8 PPG, .94 yield, 20% excess.

Abandonment Plug #3: 50' above / 50' below Top of Niobrara -6752'.
100' Height from 6802'- 6702', 50 sx Class G @15.8 PPG, 1.2 yield, 60% excess.

Abandonment Plug #2: 50' above / 50' below Top of J Sand -7530'.
100' Height from 7580'- 7480', 65 sx Class G @15.8 PPG, 1.2 yield, 80% excess.

Abandonment Plug #1: 50' above / 50' below Top of Lyons -8908'.
100' Height from 8958'- 8858', 70 sx Class G @15.8 PPG, 1.2 yield, 90% excess.

TD 9430

Not to Scale