



Jolly Roger 1

API# 05-123-12786
SESE Sec 15-4N-65W
Weld County, Colorado

P&A Procedure

AFE #

March 5, 2018

Engineer:	Cole Carveth
Director, Engineering:	Emily Miller
Completions Superintendent:	Matt Rohret
VP, DJ Operations:	John Schmidt
Attachments:	Current Wellbore Diagram Proposed Wellbore Diagram

Objective

Pull tubing and production equipment. Plug and abandon well.

Procedure

1. Submit electronic Form 42 to COGGC 48 hours prior to performing Form 17 Bradenhead Test. (not required if Bradenhead Test has been completed within 60 days of plugging operations.)
2. Perform Form 17 Bradenhead Test and sample for gas, water, and oil per COGCC Regulation.
3. Contact surveyor to acquire as-built surface location.
4. Submit electronic Form 42 to COGGC 48 hours prior to MIRU.
5. Submit form for Ground Disturbance Permit. Get One Call.
6. Notify Automation and Production Department. Production to check pressures and blow down well.
7. Hold a pre-job safety meeting. Discuss all aspects of the procedure with any involved personnel. Identify and address any safety concerns before the job begins.
8. MIRU workover unit. Blow down well. ND wellhead. NU BOPE.
9. Un-land tubing and TOO H w/tubing.
10. RIH w/ CIBP on wireline. Set CIBP @ ~7,490' (within 50'-100' of the top J Sand perf @ 7,537', between collars).
11. RIH w/ wireline and dump bail 2 sx cement on top of CIBP. POOH. Pressure test plug to 500 psi. Hold pressure for 15 min. Chart pressure on 1000 psi pressure chart. POOH with wireline.
12. RIH w/ CIBP on wireline. Set CIBP @ ~6,710' (within 50'-100' of the Niobrara top @ 6,766', between collars).
13. RIH w/ wireline and dump bail 2 sx cement on top of CIBP. POOH.
14. ND 7 1/16" BOP and wellhead. NU 11" BOP on surface casing. RU casing tongs and pipe wrangler.
15. RIH with casing jet cutter on wireline. Cut 4 1/2" casing at 2,000'. POOH with wireline. Pull casing with spear to first joint, remove casing slips. Establish circulation.
16. Pump and spot 75 sx Class G balance stub plug from 2,000' to 1,742'. Trip out of hole to 520'. Roll hole. Ensure there is no sign of hydrocarbons. If evidence is found, contact engineering. SD and wait on cement 8hrs. If circulation is not maintained then tag the plug after WOC.
17. Pump 60 sx Type III cement blend and spot balanced plug across surface casing shoe. Pump wiper plug ahead of cement to ensure water does not mix with cement. TOC will be approximately 344'. TOO H laying down all casing. Wait on cement for 4 hours.
18. TIH w/ tubing and tag cement top. Report top to engineering. TOO H.
19. PU 8-5/8" CIBP. TIH and set @ 325'. Pump 1 bbl of cement and leave on top of plug. Pressure test plug to 250 psi.
20. TOO H to 50'. Pump 15 sx Type III cement blend balanced plug from 50' to surface. TOO H and laying down tubing.
21. ND BOP. Top off well with Type III cement as necessary.
22. Disconnect flowline from separator and connect to junk tank placed at the battery.
23. Flush flowline with treated fresh water then blow dry with rig compressor. Prepare flowline for removal by construction department.

24. RDMO pulling unit.
25. Per ground disturbance procedure/policy, excavate around wellhead. Notify Environmental Department for surface review and inspection while digging.
26. Contact EHS to scan WH with FLIR to confirm well is plugged with no gas at surface. Save FLIR photo in well file.
27. Cut off casing 4 ft below ground level.
28. Weld on metal plate and dry hole marker.
29. Remove flowlines and backfill holes.
30. Notify Integrity Department to properly abandon flowlines as per Rule 1103. File electronic Form 42 once abandonment is complete.
31. Restore surface location.
32. Ensure all pressure charts, cement and wireline tickets are emailed to the Denver office for subsequent reporting. Emails shall be sent to Production Engineer, Workover Coordinator, and Production Technician.
33. Submit Form 6 Subsequent Report of Abandonment documenting the P&A to COGCC.

Attachment #1 – Current Wellbore Diagram

Wellbore Diagram

Well Jolly Roger #1
Operator North American Resources Co.
Location NW NE Section 15-T4N-R65W
County Weld
State Colorado
Field Wattenberg
Footages 990' fnl, 1540' fel
API: 05-123-12786
GL: 4681'

Spud: 11/03/1985
TD: 11/11/1985

Log Tops
Sussex 4358'
Niobrara 6766'
Codell 7060'
J Sand 7510'

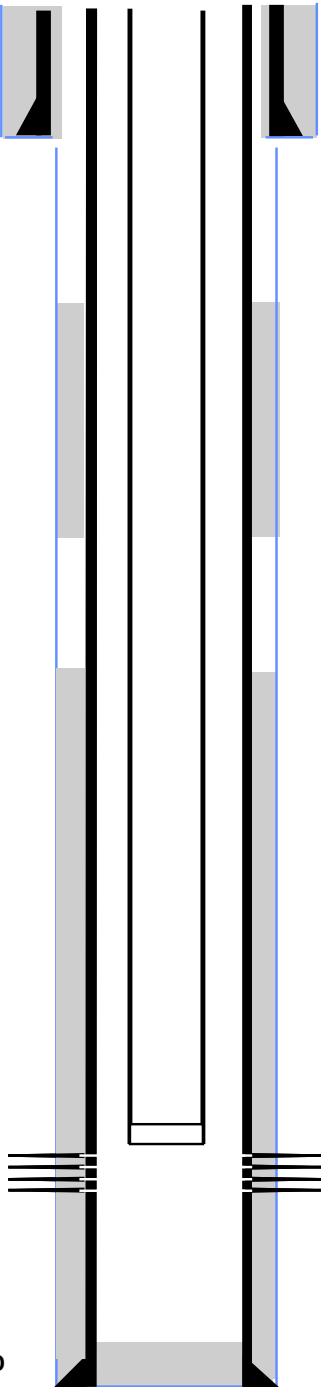
Surface Casing Cement
8 5/8" 24# casing set at 466'.
Cemented with 400 sxs.
Cement circulated to surface

Surface Hole 12 1/4"
Main Hole 7-7/8" to TD

Production Casing
4 1/2" 11.6# FC-70 casing set at 7670'
Cemented with 325 sxs.
TOC 6150'

Annular Fill
3950' - 4475' CBL (08/16/10)

Production Tubing
2-3/8" , landed @ 7515'
SN, Notched collar



J-Sand Frac 10/20/89
7537-7575' (1 spf)
Frac'd with 102,000 gal SLF,
497,000 # 20/40 sand

Attachment #2 – Proposed Plugged Wellbore Diagram

Wellbore Diagram

Well

Operator
Location
County
State
Field
Footages
API:
GL: 4681'

Jolly Roger #1

North American Resources Co.
NW NE Section 15-T4N-R65W
Weld
Colorado
Wattenberg
990' fnl, 1540' fel
05-123-12786

Spud: 11/03/1985
TD: 11/11/1985

Log Tops

Sussex	4358'
Niobrara	6766'
Codell	7060'
J Sand	7510'

Surface Casing Cement

8 5/8" 24# casing set at 466'.
Cemented with 400 sxs.
Cement circulated to surface

Surface Hole

12-1/4"

Main Hole

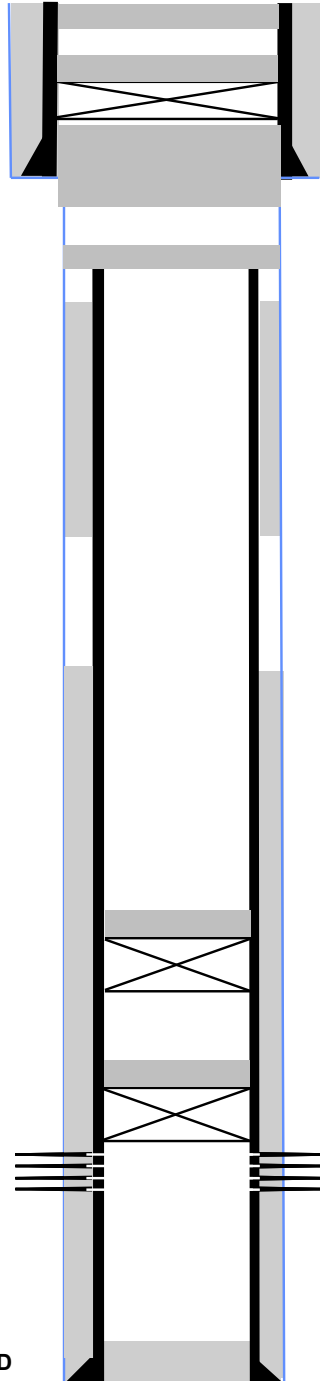
7-7/8" to TD

Production Casing

4 1/2" 11.6# FC-70 casing set at
7670'
Cemented with 325 sxs.
TOC 6150'

Annular Fill

3950' - 4475' CBL (08/16/10)



15 sx balanced plug surface - 50'

CIBP set @ 325' w/ 2 sx cement on top.

60 sx balanced plug ~344'-520'

75 sx balanced plug ~1,742'-2,000'
Cut 4-1/2" casing at 2,000'

CIBP set @ 6710' w/ 2sx cement on top.

CIBP set @ 7490' w/ 2sx cement on top.

J-Sand Frac 10/20/89

7537-7575' (1 spf)
Frac'd with 102,000 gal SLF,
497,000 # 20/40 sand

7675' — TD