

Confluence Resources

Penrod 4-3

05-001-08766

NWNW 4-15-65W

Re-entry P&A

Report date 7/14/2018

Operations date 7/13/2018

Day 1

Current status: Rig on well.

Summary: Locate well. Dig out surface csg. Weld on collar. Backfill. Road rig to location. MIRU. Spot pump and tank. Lay lines. NU x-o, csg hd, bop's, bird bath with washinton hd. Prep swivel. Receive drill collars, subs and bit.

24 hr forecast: RU to drill out cement plugs.

7:00	9:00	Locate and dig out surface csg. Weld on 9 5/8" collar with 8 5/8" collar inside. Backfill.
10:30	12:30	Road rig to location. Spot base beam. MIRU Brigade Rig #7. Spot pump and 2 return tanks.
12:30	15:30	Lay lines. NU 8 5/8" x 7" x-o, csg hd, bop's, bird bath with washington head and floor. Prep swivel. Spot trailer. Receive 3 1/2" drill collars, bit sub and bit. Load 110 bw in each tank.
15:30	16:30	Return crew travel.

Report date 7/17/2018

Operations date 7/16/2018

Day 2

Current status: Rig on well.

Summary: RU to drill. Drill out cement plugs and stringers. 275' depth. Bit plugged. TOH.

24 hr forecast: TIH. Continue drilling out open hole.

6:00	7:30	Crew travel. Warm up equipment. Hold safety meeting.
7:30	9:00	Work on csg hd. PU bop's. Change out lock pin.
9:00	10:00	PU swivel. PU 6 1/8" cone bit, bit sub and 1 3 1/2" drill collar.
10:00	16:00	Tag at 5'. Drill out cement plug and stringers from 35', 94', 110'. Drop thru. Wash and circulate to 275'. Pr test csg to 300 psi.
16:00	18:00	Bit plugged off. Not able to circulate or reverse. TOH w/3 jts 2 7/8" N-80, 6 DC and bit. Clean out bottom 1 1/2 jts DC. Cement, sand.
18:00	19:00	Return crew travel.

Report date 7/18/2018

Operations date 7/17/2018

Day 3

Current status: Rig on well.

Summary: TIH. Continue to drill out open hole. Depth 551'

24 hr forecast: TIH. Continue drilling out open hole.

6:00	7:15	Crew travel. Warm up equipment. Hold safety meeting.
7:15	8:00	PU 6 1/8" bit, TIH w/6 3 1/2" DC, 2 jts 2 7/8" N-80 tbg.
8:00	12:30	Wash down to 255'. Drill 31'. PU tbg and wash down to 541'. Some drilling. Cement, mud, clay, sand returns. 2.5 bpm, 200 psi.
12:30	15:30	Drilling slowed down. Good return rate and cuttings. Not able to make hole. Work pipe, adjust rates and rpm's. 551'. Circulate. Did not clean up. RD swivel.
15:30	17:00	TOH w/12 jts 2 7/8" tbg, x-o, 6 dc's bit sub and bit. Bit cones plugged with heavy clay and dehydrated mud with some sand. Cones not turning. Ports clear. Si and Secure well. SDFN.
17:00	18:00	Return crew travel.

Report date 7/19/2018

Operations date 7/18/2018

Day 4

Current status: Rig on well.

Summary: TIH. Continue to drill out open hole. Depth 828'. 277' for day.

24 hr forecast: TIH. Continue drilling out open hole.

6:00	7:45	Crew travel. Warm up equipment. Hold safety meeting. Wait on bit sub. Service equipment.
7:45	9:30	MU 4 3/4" cone bit, bit sub. TIH w/6 3 1/2" DC, 12 jts 2 7/8" tbg. Swivel up. Sit tag at ~500'. Drill thru, wash down to 551'.
9:30	19:00	Start drilling. 2.5 bpm, 300 psi. Mix Hydro 123L polymer chemical to increase fluid to 35-40 vis. Drill to 828'. Circulate clean. Last jt slightly easier. Very fine returns. Hard to catch in screen.
19:00	19:30	LD swivel. LD 1 jt tbg. TOH w/18 jts. EOT 223'. SI and secure well. SDFN.
19:30	20:30	Return crew travel.

Report date 7/20/2018
 Operations date 7/19/2018
 Day 5
 Current status: Rig on well.
 Summary: TIH. Continue to drill out open hole. Depth 1081'. 253' for day.
 24 hr forecast: TIH. Continue drilling out open hole.

6:00	7:15	Crew travel. Warm up equipment. Hold safety meeting. Service equipment.
7:15	9:30	TIH w/16 jts tbg. Tag at 731'. Plug bit. Work pipe. Pump out plug. Circulate and wash down 4 jts to 828'. No issues. RU swivel.
9:30	18:45	Start drilling. 2.5 bpm, 300 psi. Mix Hydro 123L polymer chemical to increase fluid to 35-40 vis. Drill to 1081'. Last 20' cement. Drilling slowed down. 9 hrs. 253'. Circulate clean.
18:45	19:30	LD swivel. TOH w/26 jts tbg. LD 1 jt tbg. EOT 223'. SI and secure well. SDFN.
19:30	20:30	Return crew travel.

Report date 7/21/2018
 Operations date 7/20/2018
 Day 6
 Current status: Rig on well.
 Summary: TIH. Continue to drill out open hole. Depth 1209'. 128' for day.
 24 hr forecast: Monday. TIH. Continue drilling out open hole.

6:00	7:30	Crew travel. Warm up equipment. Hold safety meeting. Service equipment.
7:30	9:45	TIH w/22 jts tbg. Rotate in at 551', 828, 923'. RU swivel. Swivel/wash down 6 jts to 1081'. Circulate. No issues. 6 dc's, 28 jts 2 7/8" tbg.
9:45	18:45	Start drilling. 2.5 bpm, 300 psi. Mix Hydro 123L polymer chemical to increase fluid to 35-40 vis. Drill to 1209'. Slow/hard drilling. Fine cmt/mud returns. 9 hrs drilling. 128'. Circulate clean.
18:45	20:00	LD swivel. LD 6 jts. TOH w/26 jts tbg, 6 DC's, bit sub and 4 3/4" bit. SI and secure well. SDFN.
20:00	21:00	Return crew travel.

Saturday - receive and unload shaker, solids tank from Williston. Load with 220 bw.

Report date 7/24/2018
 Operations date 7/23/2018
 Day 7
 Current status: Rig on well.
 Summary: Monday. TIH. Continue drilling out open hole.
 24 hr forecast: Tuesday. TIH. Continue drilling out open hole, start 24 hour ops.

6:00	8:00	Crew travel. Warm up equipment. Hold safety meeting. Service equipment.
8:00	9:30	Rig in Fluid Pro Shaker and solids tank, generator. TIH new 4-3/4 blade bit, xo, 6 3-1/2 DC, 24 2-7/8 jts to 954'. Start circulating and washing down using shakers. Mix 21 lbs Hyro 30L Polyner chemical to increase fluid vis target of ~50 cp.
9:30	11:30	Tag up @ 1209 all the way in with joint 32. Start drilling. 2.5 bpm, 300 psi, visc 28 cP. Cont Drilling. 10' in on Joint 33. Mix an additional 42 lbs Hydro 30 Polymer. Returns very fine, re-hydrated mud?
11:30	14:30	Drilled all the way in on Jt 33 @ 1240'. Circulate and make connection. Continue drilling with Jt 34. 2.5 bpm, 300 psi, visc 28, Added 1/2 bucket polymer
14:30	15:45	Drilled to 1272, 2.5 bpm, 300 psi, 32 visc. Make connction with joint 35. Cont drilling to ~1282
15:45	16:45	Lightning Delay. Strikes 6-12 miles out. And 0-6 miles. Heavy rain. Leave pump circulating
16:45	17:45	Drill to 1282'. Slow/hard drilling. Fine cmt/mud returns. 7 hr 15 min drilling. 73' drilled
17:45	18:45	LD swivel. TOOH 34 jts tbg, leave 1 jt, 6 DC's, bit sub and 4 3/4" bit hanging off. SI and secure well. SDFN.
20:00	21:00	Return crew travel.

Report date 7/25/2018
 Operations date 7/24/2018
 Day 8
 Current status: Rig on well.
 Summary: TIH. Continue drilling out open hole. TOH for bit. TIH. Continue drilling. Start 24 hr ops.
 24 hr forecast: Continue drilling out open hole. 24 hour ops.

5:00	6:15	Crew travel. Warm up equipment. Hold safety meeting. Service equipment.
6:15	7:15	TP: 0. CP: 0. TIH w/14 jts 2 7/8" N-80 tbg, SIH w/20 jts tbg. (4 3/3" blade bit, 6 DC's, 1 jt tbg in hole.) Tag 1282'. Same place. No tight spots. Establish circulation. 2.5-3.0 bpm, 300-400 psi. Shakers in service.
7:15	13:30	Start drilling at 1282'. Mix Hyro 30L Polyner chemical to increase fluid vis 34. Target 40-50. Hard/slow drilling at 1350'-55' abd 1360-65'. Fine mud returns, small pieces coal. Down at 1368'. Circulate
13:30	14:30	RD swivel. TOH w/37 jts tbg, 6 DC, bit sub and bit. 1" x 1" piece of one blade missing, one blade worn, few chips in center of blade. 4 1/4" wear pattern. LD 10 jts.
14:30	15:00	TIH w/new 4 3/4" step blade bit, bit sub, 6-3 1/2" DC, 11 jts 2 7/8" tbg. Tag at 541'. LD 16 jts.
15:00	20:00	RU swivel. Start washing down tight spots. Heavy cuttings coming back.

20:00	22:00 PU JT #21 @859' hard drilling made 5' 1/2 hour PU off bottom and pulling sticky LD #21 and screw into #20 and was hung up @855'
22:00	22:30 Pump A surface to surface sweep
22:30	23:30 RD swivel and POOH change out 4-3/4" step bit to 6-1/8" rock bit
23:00	0:30 TIH and tag up @477' 6-3 1/2" DC and 9 jts 2 7/8" TBG RU swivel
0:30	4:10 wash down to jt 21 got sticky LD 21 and PU A PUP JTS to work through tight spot
4:10	6:00 drill down to 891'. Lost 100 bw.

Report date 7/26/2018

Operations date 7/25/2018

Day 9

Current status: Rig on well.

Summary: Continue drilling out open hole. TOH. Bit balled off. TIH w/4 3/4" bit. Continue washing down. TOH. TIH w/6 1/8" bit as per COGCC. Continue drilling out open hole.

24 hr forecast: Continue drilling out open hole. 24 hour ops.

	(depth adjustment, 859'. Jt #21 at 6:00 am)
6:00	7:15 Crew change. Continue drilling on jt #21. 2.5-3.0 bpm, 300-400 psi. Very slow drilling.
7:15	7:30 859'. Circulate. RD swivel. Circulate mud system. Lost 100 bw last 24 hrs.
7:30	8:30 SOH/TOH with 22 jts tbgs, 6 DC and 6 1/8" bit. Bit balled off with heavy clay. Cones not turning. Clean up bit. OK to rerun.
8:30	10:00 WOO from COGCC. Did not hear back. Decision made to run 4 3/4" bit.
10:00	10:50 TIH/TOH with 4 3/4" step bit, bit sub, 6-3 1/2" DC, 21 jts 2 7/8" tbgs. Tag at 859' RU swivel, establish circulation.
10:50	12:30 Start wash/drill down at 859'. #22. Drill to 923' #23. Circulate clean. COGCC prefers to drill 6 1/8" hole to 1368'.
12:30	13:15 RD swivel. SOH/TOH w/23 jts tbgs, 6 DC and 4 3/4" step bit. Bit starting to show same 4 1/4" wear pattern.
13:15	14:15 TIH w/6 1/8" step bit, bit sub, 6-3 1/2" DC, 21 jts tbgs. Tag at 859'. RU swivel.
14:15	18:00 Establish circulation. 3.5 bpm at 450-500 psi. Vis 37. Added 2 gals polymer. Jt 22 30 min. 891'. Jt 23 50 min. 923'. Jt 24 1 hr made 7'. 17:00 930' Drilling on something hard. Swivel torquing up.
18:00	19:00 RD swivel and POOH with drilling BHA
19:00	20:00 Change out bit to 6-1/8" Rock Bit and wait for lightning to clear
20:00	22:30 TIH with drilling BHA tag @710' RU swivel and drill thru tight spot
22:30	6:00 Back on bottom @923'. drill to 1081'

Report date 7/27/2018

Operations date 7/26/2018

Day 10

Current status: Rig on well.

Summary: Continue drilling out open hole. TOH. Bit balled up. TIH. Continue drilling open hole. TOH. Bit balled up. TIH. Continue drilling open hole.

24 hr forecast: Finish drilling out open hole. Pump balanced cement plugs.

6:00	8:00 Crew change. Finish drilling on jt #29. 1114'. 3.0-3.5 bpm, 400-450 psi.
8:00	10:00 Drill jt #30. 1146'.
10:00	13:40 Drill jt #31. 1178'. Very slow drilling. Tried SAPP sticks and crushed walnut shells.
13:40	15:30 Circulate. LD swivel. LD 5 jts tbgs. Pulled 15k# over. Circulate 30 min. 2 btms up. Good cuttings returns. LD 15 jts. TOH w/11 jts and 6 DC, 6 1/8" bit. Bit balled up.
15:30	16:45 TIH w/6 1/8" cone bit, x-o, 6-3 1/2" DC, 26 Jts 2 7/8" tbgs. Tag at 1010'.
16:45	17:30 RU swivel. Swivel/wash down 6 jts to 1178'. #31. No issues.
17:30	19:30 Start drilling at 1178'. Jt #32. Made 1' in 2 hours
19:30	20:30 RD swivel and POOH and inspect bit balled up with mud and plugged
20:30	22:00 PU 6-1/8" step bit and TIH (Had down time due to lightning and high winds)
22:00	23:00 was drilling on JT #32 had good torque and cement in returns
23:00	0:00 Lost torque dropped SAP stick and walnut
0:00	0:30 Got torque back drill 15'
0:30	4:00 Drilling @1205' making little hole and torque smoothed out
4:00	5:00 RD swivel and POOH and inspect bit. Bit ok.
5:00	6:00 PU 6-1/8 Cone bit and TIH

Report date 7/28/2018

Operations date 7/27/2018

Day 11

Current status: Rig on well.

Summary: TIH. Continue drilling out open hole. COGCC permission to pump cement. Circulate hole. RU Basic. Pump cement plug. LD tbgs and DC. Pump cement plug to surface. LD tbgs. RD Basic. RD Brigade and equipment. Prep to move.

24 hr forecast: Move off rig and support equipment. Cut and cap surface csg next week.

6:00	6:30 Crew change. Continue TIH w/6 1/8" cone bit, bit sub, 6-3 1/2" DC, 30 jts 2 7/8" tbg.
6:30	7:00 Tag 1146'. RU swivel. NU wash hd. Wash down jt #30, 31 and 32. 4' out. 1205'. No issues
7:00	7:40 1205'. #32. Est circ. 3.0 bpm, 500 psi. Drill down. Cmt, small gravel in returns.
7:40	9:30 1209'. #33. 36 vis. Drill down. Last 10' slow. Cmt, slt sand, small gravel in returns.
9:30	11:20 1241'. #34. Drop SAPP stick, walnut shells. Drill down. Last 10' slow. Rehydrated mud.
11:20	13:30 1272'. #35. Drop SAPP stick, walnut shells. Drill down. Drlg slowing down.
13:30	15:30 1304'. #36. Drop SAPP stick, walnut shells. Drill down to 1320'. Slow drilling. Received permission from COGCC to pump cmt. LD 1 jt. EOT: 1304'. Circulate hole.
15:30	18:00 Circulate hole. Move pipe. Basic on location. RU Basic Cementing. Hold safety meeting.
18:00	18:15 RD swivel. RU Basic to wellhead.
18:15	18:45 Mix up and pump 221 SKS of 15.8 PPG class G. 3.0 bpm. 300 psi. Full returns. See rpt.
18:45	20:00 POOH with work string and LD drilling BHA. Est TOC ~600'.
20:00	20:30 TIH with 11 JTS to 350'
20:30	21:00 Mix up and pump 229 SKS of 15.8 PPG class G NEAT got good cement to surface
21:00	6:00 SOH and LD tbg. Top off cmt. RDMO Rig#7 and support equipment. 6:00 am Cmt 1' down from surface.