OCCIDENTAL PETROLEUM CORPORATION

Please contact your area engineer with any questions concerning this procedure.

4/21/2025

RE-ENTRY PLUG and ABANDONMENT PROCEDURE

CHRISTENSEN 6-9

05-123-10359

Step	Description
1	**PREP**
2	Well is being re-entered to P&A well to current standards due to it being offset to upcoming fracs.
3	**Provide 48 hour notice to Colorado ECMC prior to rig up per request on approved Form 6 (i.e. submit Form 42, etc.)**
4	Perform pre-job safety meeting and review JSA. Ensure all parties know their roles and responsibilities and can identify hazards.
5	Follow all Rockies Well Servicing guidelines.
6	Stop and complete new JSA prior to all barrier changes.
7	Locate and expose 8-5/8" casing stub.
8	Tie into and weld on 8-5/8" casing stub above GL.
9	Install 8-5/8" 3K Q92 well head with ball valves on both outlets.
10	Check and record surface casing pressure.
11	**START RIG ACTIVITIES**
12	MIRU rig/ equipment/tanks/pumps.
13	Perform negative test and ensure well is dead. Wait 15-30 minutes to verify (cement is at surface).
14	Pressure test BOPE, annular and 2" 1509 iron to API standards. Chart and record pressure tests. Please refer to Testing Procedures and Testing Table listed in the APPENDIX tab. All tests are performed on stump. Note: ensure BOPE accumulator controls are properly placed and pressurized.
15	NU and torque BOPE to casing head. The BOP consists of the following components: 7-1/16" double gate BOP with blind rams and pipe rams (for 4.5" DP), annular bag, 2 TIW valves accessible with change overs if applicable (i.e. drill collars). Communicate with foreman on correct BOP.
16	Test TIW valves. Chart tests and document accordingly.
17	**DRILLING**
18	PU 7-7/8" drilling BHA on drill pipe for the surface plug and shoe plug tag.
19	Drill 10 sx cement plug from surface. Continue washing down to cement plug at shoe and tag. No idea if it'll even be there. Discuss with engineer foreman if we need to pick up a packed-hole (fixed incliniation) BHA to drill out the shoe plug. Trip for MWD tools past 230' .
20	LD BHA and pick up packed-hole BHA with UBHO. (7-7/8" tri-cone, 7-7/8" near bit stabilizer, 6-11/16" OD straight motor, 7-7/8" stabilizer, monels with at least one stabilizer, UBHO, 7-7/8" stabilizer, 6 x 4.5" HW) Need at least 4 stabilizers total.
21	Continue drilling out shoe plug then wash down to 6900'.
22	Circulate with biocide treated fresh water to clean the hole. Pump until returns are clean.
23	TOOH, LD BHA.
24	PU and TIH with 8-5/8" bit and scraper. Clean surface casing from surface to 250'. TOOH, LD bit and scraper.
25	**J-SAND PLUG**
26	RIH w/DP open-ended to 6900'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
27	MIRU cementers. Pump J-Sand Plug: Pump 150 sx (1.52 yld - 40.6 bbl or 228 cf) of the Niobrara Cement blend: Class G with 0.4% B547 Gas Block (Latex) and 0.4% D255 FLA (Fluid Loss) and 35% D066 Silica Flour and 0.2% D800 (Retardant) and 0.3% D065 (Dispersant). Volume based on 350' in 7.875" bit size open hole with 100% excess factor. Cement planned for 6900-6550'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
28	Pull out of cement. TOOH to 6000'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
29	**NIO PLUG**
30	RIH w/ DP open-ended to 6400'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.

31	MIRU cementers. Pump Nio Plug: Pump 200 sx (1.52 yld - 54 bbl or 304 cf) of the Niobrara Cement blend: Class G with 0.4% B547 Gas Block (Latex) and 0.4% D255 FLA (Fluid Loss) and 35% D066 Silica Flour and 0.2% D800 (Retardant) and 0.3% D065 (Dispersant). Volume based on 600' in 7.875" bit size open hole with 50% excess factor. Cement planned for 6400'-5800'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
32	Pull out of cement. TOOH to 5000'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
33	**SUSSEX PLUG**
34	RIH w/ DP open-ended to tag previous plug to confirm coverage. Move up to 4300'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
35	MIRU cementers. Pump Sussex Plug: Pump 280 sx (1.19 yld - 59 bbl or 333 cf) of the Sussex AGM: Class G with 0.4% B547 Gas Block (Latex) and 2% D053 Expansion (Gyp) and 0.25% D255 FLA (Fluid Loss)0.3% D065 (Dispersant). Volume based on 500' in 7.875" bit size open hole with 100% excess factor. Cement will be from 4300'-3800'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
36	Pull out of cement. TOOH to 2800'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
37	**2600' PLUG**
38	RIH w/ DP open-ended to tag previous plug to confirm coverage. Move up to 2600'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
39	MIRU cementers. Pump 2600' Plug: Pump 200 sx (1.21 yld - 43 bbl or 242 cf) of the Lower AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 1% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 500' in 7.875" bit size open hole with 40% excess factor. Cement will be from 2600'-2100'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
40	Pull out of cement. TOOH to 1500'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
41	**1500' PLUG**
42	RIH w/ DP open-ended to tag previous plug to confirm coverage. Move up to 1500'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
43	**COA: Prior to pumping cement into the Upper Pierre, verify all fluid migration has been eliminated. Contact engineering if pressure remains.**
44	MIRU cementers. Pump 1500' Plug: Pump 330 sx (1.21 yld - 71 bbl or 400 cf) of the Upper AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 1.5% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 600' in 7.875" bit size open hole with 100% excess factor. Cement will be from 1500'-900'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
45	Pull out of cement. TOOH to 300'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
46	**SHOE/SURFACE PLUG**
47	**COA: Refer to shoe plug COA in approved Form 6**
48	RIH w/ DP open-ended to tag previous plug to confirm coverage. Move up to 500' or stay just above tag if shallower than 500'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
49	MIRU cementers. Pump Shoe Plug: Pump 330sx (1.21 yld - 71 bbl or 400 cf) of the Surface AGM blend: Class G with 0.4% B547 Gas Block (Latex) and 2.0% S001 CC (Calcium Chloride) and 4% D053 Expansion (Gyp). Volume based on 230' in 7.875" bit size open hole with 300% excess factor and 263' in 8-5/8" 24# with 0% excess factor. Cement planned for 500'-Surface'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
50	Pull out of cement. TOOH, LD all but one joint of pipe. Circulate clean with water to ensure TOC is low enough for C&C team. TOOH and LD final joint . RDMO cementers. ND BOP. Install night cap. RDMO all.
51	Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@oxy.com within 24 hours of completion of the job.
52	Supervisor submit paper copies of all invoices, logs, and reports to Well Services Engineering Specialist.
53	Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
54	Excavate hole around surface casing enough to allow welder to cut casing a minimum 5’ below ground level.
55	Welder cut casing minimum 5' below ground level.
56	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
57	Obtain GPS location data and provide to GPS Teams page and OXY GIS database.

58	Back fill hole with fill. Clean location, and level.
59	Submit Form 6 Subsequent Report to Colorado ECMC ensuring to provide 'As performed' WBD identifying operations completed.
60	Welder cut casing minimum 5' below ground level.
61	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
62	Obtain GPS location data and provide to GPS Teams page and OXY GIS database.
63	Back fill hole with fill. Clean location, and level.
64	Submit Form 6 Subsequent Report to Colorado ECMC ensuring to provide 'As performed' WBD identifying operations completed.