

## OCCIDENTAL PETROLEUM CORPORATION

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

1/8/2025

**RE-ENTRY PLUG and ABANDONMENT PROCEDURE**

ZIMBELMAN 15-14

API: 05-123-10516

**Step Description**

<b>1</b>	<b>PREP</b>
<b>2</b>	Well is being re-entered to P&A well to current standards due to it being offset to upcoming fracs.
<b>3</b>	<b>Provide 48 hour notice to Colorado ECMC prior to rig up per request on approved Form 6 (i.e. submit Form 42, etc.)</b>
<b>4</b>	Perform pre-job safety meeting and review JSA. Ensure all parties know their roles and responsibilities and can identify hazards.
<b>5</b>	Follow all Rockies Well Servicing guidelines.
<b>6</b>	Stop and complete new JSA prior to all barrier changes.
<b>7</b>	Locate and expose 8-5/8" casing stub.
<b>8</b>	Tie into and weld on 8-5/8" casing stub above GL.
<b>9</b>	Install 8-5/8" 3K Q92 well head with ball valves on both outlets.
<b>10</b>	Check and record surface casing pressure.
<b>11</b>	<b>START RIG ACTIVITIES</b>
<b>12</b>	MIRU rig/ equipment/tanks/pumps.
<b>13</b>	Perform negative test and ensure well is dead. Wait 15-30 minutes to verify (cement is at surface).
<b>14</b>	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.
<b>15</b>	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.
<b>16</b>	Test TIW valves. Chart tests and document accordingly.
<b>17</b>	<b>DRILLING</b>
<b>18</b>	PU 7-7/8" drilling BHA w/ MWD on drill pipe.
<b>19</b>	Drill 10 sx cement plug from surface through estimated BOC at 30'. Continue drilling out cement plug at shoe, estimated TOC 270' and estimated BOC at 420'. AS SOON AS WE BEGIN TO SEE INDICATION OF NEW FORMATION BEING DRILLED, STOP AND DISCUSS W/ FOREMAN/ENGINEER.  Continue washing down to 5900' casing cut. Contact engineering if depth not reached.
<b>20</b>	Circulate with biocide treated fresh water to clean the hole. Pump until returns are clean.
<b>21</b>	TOOH, LD BHA.
<b>22</b>	PU and TIH with 8-5/8" bit and scraper. Clean surface casing from surface to 320'. TOOH, LD bit and scraper.
<b>23</b>	<b>NIO PLUG</b>
<b>24</b>	RIH w/ 4-1/2" DP open-ended to 5900'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
<b>25</b>	MIRU cementers. Pump Nio Plug: Pump 150 sx (1.52 yld) 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 500' in 7.875" bit size open hole with 35% excess factor. Cement would be from 5900'-5400'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
<b>26</b>	Pull out of cement. TOOH to 5000'. Circulate tbg clean for 2 bottoms up. TOOH. WOC.
<b>27</b>	<b>SUSSEX PLUG</b>
<b>28</b>	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 4400'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.

29	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 95% excess factor. Cement would be from 4400'-3900'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
30	Pull out of cement. TOOH to 3000'. Circulate tbg clean for 2 bottoms up. TOOH. WOC.
31	<b>2300' PLUG</b>
32	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 2300'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
33	MIRU cementers. Pump 2300' 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 2300'-1800'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
34	Pull out of cement. TOOH to 1600'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
35	<b>1200' PLUG</b>
36	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 1200'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
37	<b>COA: Prior to pumping cement into the Upper Pierre, verify all fluid migration has been eliminated. Contact engineering if pressure remains.</b>
38	MIRU cementers. Pump 1200' Plug: Pump 280 sx (1.21 yld - 60 bbl or 339 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 500' in 7.875" bit size open hole with 100% excess factor. Cement will be from 1200'-700'. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
39	Pull out of cement. TOOH to 500'. Circulate tbg clean for a minimum of 2 bottoms up. TOOH. WOC.
40	<b>SHOE PLUG/SURFACE PLUG</b>
41	<b>COA:</b>
42	RIH w/ 4-1/2" DP open-ended to tag previous plug to confirm coverage. Move up to 600' or stay just above tag if shallower than 600'. Establish circulation to surface with biocide treated fresh water and pump at least two hole-volumes to clean up wellbore.
43	MIRU cementers. Pump Shoe Plug: Pump 330 sx (1.21 yld) 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 280' in 7.875" bit size open hole with 200% excess factor and 320' in 8-5/8" 24# with 0% excess factor. Cement will be from 600' to surface. Collect wet and dry samples of cement to be left on rig. RDMO Cementers. Notify engineering if circulation is ever lost during job.
44	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.
45	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.
46	Supervisor submit paper copies of all invoices, logs, and reports to Well Services Engineering Specialist.
47	Excavation crew to notify One Call to clear excavation area around wellhead and for flow lines.
48	Excavate hole around surface casing enough to allow welder to cut casing a minimum 5' below ground level.
49	Welder cut casing minimum 5' below ground level.
50	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
51	Obtain GPS location data and provide to GPS Teams page and OXY GIS database.
52	Back fill hole with fill. Clean location, and level.
53	Submit Form 6 Subsequent Report to Colorado ECMC ensuring to provide 'As performed' WBD identifying operations completed.