

PLUG AND ABANDONMENT PROCEDURE

HSR-Bibeault 4-22

Step	Description of Work
1	Provide 48 hr notice to COGCC prior to rig up per request on approved Form 6 (e.g. call field coordinator, submit Form 42, etc.). Call Automation Removal Group at least 24 hr prior to rig move. Request they catch plunger, isolate production equipment and remove any automation prior to rig MIRU.
2	Slickline is not required as tubing has been removed from well. 7015' of 2-3/8" workstring will be required to perform the P&A.
3	Prepare location for base beam equipped rig. Install perimeter fence as needed. Note that well head has been lowered ~3' to accommodate HZ drilling activity on the pad prior.
4	Check and record Bradenhead pressure. If Bradenhead valve is not accessible, re-plumb so that valve is above GL.
5	MIRU, kill as necessary using clean fresh water with biocide. ND WH. NU BOP.
6	TIH with 2-3/8" tubing and retrieving head to Thunderbird 4-1/2" RBP set at 6856'. Circulate sand off of RBP, latch, release plug and POOH.
7	TIH with 2-3/8" tubing and retrieving head to Thunderbird 4-1/2" RBP set at 6951'. Circulate sand off of RBP, latch on, release plug and POOH.
8	MIRU WL. RIH w/ gauge ring for 4-1/2" 11.6# csg to 6800'.
9	RIH and Set 4-1/2" CIBP at 7015'. PT csg and CIBP to 1000 psi for 15 minutes. RDMO WL.
10	Notify Cementers to be on call.
11	RIH with 2-3/8" tbg while hydrotesting to 3000 psi and tag CIBP set at 7015'. Record tag depth and pick up 5'.
12	MIRU cementers. Establish circulation. Pump Nio balanced plug: Pump 25 sks (6.7 bbl) of Cement Blend: Thermal 35 + 0.5% CFR-2 + 0.25% FMC to achieve 3:28 pump time mixed at 15.6 ppg and 1.51 cuft/sk. Designed for coverage from 7015' to 6600' inside 4-1/2" casing.
13	PUH to 6200 and circulate hole clean with fresh water and biocide. POOH standing back.
14	MIRU WL. PU two 3-1/8" perf guns w/ 0.59" diam, 120 phasing and shoot 1' of squeeze holes at 4510' and 2' of squeeze holes at 4100'. RDMO WL.
15	PU 4-1/2" CICR on 2-3/8" tbg. RIH and Set CICR at 4130'. Establish circulation through sqz holes.
16	RU Cementers. Establish circulation, Pump Sussex Suicide plug: Pump 5 bbls fresh water followed by 20 bbls sodium metasilicate followed by 5 bbls fresh water ahead of cement: 210 sks (41.9 bbls) 1:1 'Poz:G + 0.6% CFL-2 + 0.5% CFR + 0.6% SMS + 0.2% SPC-2 + 0.1% LTR, mixed at 14.6 ppg and 1.12 cuft/sk. Underdisplace by 3 bbls and unsting from CICR. Spot final 3 bbls on top of CICR and sqz holes. Volume based on 8-1/2" x 4-1/2" annulus with 20% excess from 4510' to 4100', and 4-1/2" casing from 4510' to 3950'. RD Cementers.
17	PUH 10 stands and circulate hole clean with fresh water and biocide. POOH standing back.
18	MIRU WL. Crack coupling or jet cut 4-1/2" csg at 1170'. Circulate approximately 120 bbls of fresh water and biocide to remove any gas from wellbore.
19	ND BOP and tubing head. Install a BOP on surface casing head with 4-1/2" pipe rams. Install 3000 psi ball valves on both casing head outlets. Install a choke or choke manifold on one outlet.
20	POOH and LD 4-1/2" csg. Remove the 4-1/2" pipe rams and Install 2-3/8" pipe rams.
21	RIH w/ 2-3/8" WS open ended ~100' past the 4-1/2" csg stub to 1270' and get bottoms up.
22	MIRU Cementers. Establish circulation with water containing biocide. Pump Fox Hills Balanced plug: Pump mud flush of 10 bbls SAPP followed by 20 bbls water ahead of 330 sx (78.1 bbls) Type III + 0.3% CFL-3 + 0.3% CFR-2 + 1% CaCl ₂ + 0.25 lb/sk Polyflake, mixed at 14.8 ppg and 1.34 cuft/sk. POH and WOC per cementing company recommendation. Plug size is based on 4-1/2" casing from 1270' to 1170' and 9" hole with 40% excess covering 1170' to shoe of surface casing at 600' plus capacity of surface casing to 400'. PUH to 200' and Circulate out any excess cmt. TOH and WOC min of 4 hrs or per cement company recommendation.
23	RIH and tag top of plug. Plug needs to be tagged at 500' or shallower. POOH and LD 2-3/8" tbg.
24	RU wireline. Run and set CIBP in the 8 5/8", 24# surface casing at 80'. PT CIBP and surface casing to 1000 psi for 15 minutes. Assuming successful test, RD wireline. RDMO workover rig.
25	Instruct cementing and wireline contractors to e-mail copies of all job logs/job summaries to rscDJVendors@anadarko.com within 24 hrs of completion of the job.
26	Supervisor submit paper copies of all invoices, logs, and reports to Evans Specialist.

1989 Vintage Elk Well- 4-1/2"

TOC: 6528' Nio Top: 7060' Sx Top: 4302' FHM: 1068'

SX/SH non productive within 1 mile

Non HZ, Plug and Abandon due uneconomic to unprep

Gyro ran 4/20/2012

27	Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
28	Excavate hole around surface casing enough to allow welder to cut casing minimum 5' below ground level.
29	Welder cut casing minimum 5' below ground level.
30	Fill casing to surface using 4500 psi compressive strength cement, (NO gravel).
31	Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
32	Properly abandon flowlines per Rule 1103. File electronic Form 42 once abandonment complete.
33	Back fill hole with fill. Clean location, level.
34	Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed with existing gyro data.

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