

Hamon "A" Federal Comm #1, Re-completion Procedure Continued

5. Install 7 1/16", 5M psi hydraulic BOP w/ 2 7/8" pipe rams on top and blind rams on bottom. Install (2) 2 1/16", 5M psi gate valves on BOP outlets below blind rams. Pressure test BOPE to 3,000 psi. (Refer to MCR Drlg Supt for BOPE testing procedure)
6. POOH with tubing & packer. Lay down 155 jts 2 7/8".
7. MIRU wireline unit w/ full lubricator. Test lubricator to 1,000 psi. RIH w/ wireline set 5 1/2" 17# CIBP to \pm 13,050'. Dump bail 35' of Class "H" on CIBP. Test plug and casing to 1,000 psi.
8. RIH w/ "radial" type CBL/GR and evaluate cement from \pm 9,000' to \pm 10,000'. Make a pass w/ (0) pressure and repeat w/ 1,000 psi on casing. (GR to be used as background pass for subsequent post frac height analysis)
9. RIH w/ wireline set 5 1/2" 17# CIBP to \pm 9,725'. Dump (2) sx of sand on plug and SION.
10. RIH w/ 5 1/2" 17# packer on 2 7/8" tubing to \pm 9,700'. Test CIBP to 2,000 psi. Release packer and pickle tubing w/ 500 gal 15% HCl. Reverse pickle acid to pit and POOH w/ 2 7/8" tubing and packer.
11. MIRU wireline unit w/ full lubricator. Test lubricator to 1000 psi. RIH w/ GR/CCL, correlate with DNL dated 7/29/90. Perforate the 1" Bone Springs Sand w/ 3 3/8" port gun as follows: 9434'-9438', 9460'-9480', 9496'-9516'. All shots w/ 23 gram charges, 2SPF & 120° phasing.
12. PU 5 1/2" 17# packer on 2 7/8" 6.5# N-80 and RIH to 9,375'. Drop SV and test tubing string to 5,000 psi, fish SV. Set packer then load and test the backside to 1,500 psi w/ 2% KCl water.
12. MIRU Halliburton to pump a breakdown/ballout treatment via the 2 7/8" tubing. The job will consist of 3,000 gals of MOD-101 carrying (100) 7/8" ballsealers. Flush to bottom perf w/ 2% KCl water then surge ballsealers off of the perfs.
14. Swab back the acid load as necessary. Record entry and cut.
15. Release packer and run past \pm 9,516 to knock any remaining balls off of the perfs. POOH w/ tubing and packer. Change out pipe rams to 3 1/2".
16. PU 5 1/2" 17# 10K packer on 3 1/2" 9.3# N-80 and Hydrotest in hole to 9000 psi. Set packer at \pm 9,375' and load and test backside to 1,500 psi w/ 2% KCl water.
17. Spot (4) clean manifolded frac tanks. Visually inspect tanks and add biocide prior to filling with 2,000 bbls of 2% KCl. (No KCl substitute)
18. MIRU Guardian flowback manifold to flowback tank.
19. MIRU Halliburton. Test surface treating lines to 9,000 psi. Prepare to fracture stimulate the Bone Springs w/ 70,000 gals 25# Delta Frac carrying 175,000 lbs 16/30 PR-6000. The job is designed to be pumped at 30 bpm with an expected surface treating pressure of 6,000 psi. The sand stages are to be tagged w/ a single isotope as per Protechnics. Apply and maintain 500 psi on annulus during the treatment, set pop-off @ 1000 psi. The proposed pumping schedule is as follows:

Stage	Fluid	Volume	Conc.	Prop Type	Est. Press.
Pad	25# Delta 200	25000	-		5950
Prop-Laden	25# Delta 200	5000	1	16/30 PR-6000	5700
Prop-Laden	25# Delta 200	6000	2	16/30 PR-6000	5500
Prop-Laden	25# Delta 200	7000	3	16/30 PR-6000	5300
Prop-Laden	25# Delta 200	8000	4	16/30 PR-6000	5150
Prop-Laden	25# Delta 200	9000	5	16/30 PR-6000	5000
Prop-Laden	25# Delta 200	10000	6	16/30 PR-6000	4850
Flush	25# Linear	3450	-		5200

Frac Fluid: 80,000 gals Delta-Frac 200

Additives per 1000 gals

6.25 gpt LGC-IV	(Gellant)
1.75 gpt BC-200	(Buffer/Crosslinker)
1.00 gpt Lo-Surf 300	(Non-emulsifier)
1.00 gpt Cla-Sta XP	(Clay Control)
1.00 ppt SP*	(Breaker)
1.00 ppt Opti-Flo II*	(Breaker)
0.30 ppt BE-5	(Bactericide)

Proppant: 175,000 lbs 16/30 PR-6000W (Pre-cured Resin Coated Sand)