

Mitchell State 16 #3
North Young Field
Lea County, New Mexico

San Andrea Test

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Current Status: Perfs = 6942'-6962'
8478'-8510'
8602'-8630'

Tubing in derrick; CIBP set @ 10340' w/35' cmt.

1. RU electric line. RU pack-off head on top of BOP. RIH and set 5 1/2" CIBP at 6600'. POOH.
2. RU 3 1/2" x 40' dump bailer. RIH and dump bail 35' of cement on top of CIBP. POOH.
3. RU electric line to perforate. RIH with 4" casing guns and perforate the San Andres at:

Interval	Density	# Holes
4569'-4572'	2 SPF	8
4577'-4580'	2 SPF	8
4616'-4628'	2 SPF	26
4732'-4749'	2 SPF	36
Total =		78

POOH and RD electric line.

4. TIH with 5 1/2" RBP, 5 1/2" treating packer, 2.25" SN, and 2 7/8" tubing. Set RBP at 4780'. PU 10' and set packer. Test tubing/RBP to 4200 psi. Release packer. PU and set packer at 4650'. NU stimulation valve.
5. MIRU stimulation company. RU surface lines and test to 4500 psi. RU pump on 2 7/8" x 5 1/2" annulus. Monitor throughout the job. Pump 900 gallons of 7 1/2% NEFe HCl acid. Space out 55 RCNBS (sp. gr. = 1.3) throughout the job. Displace acid to bottom perforation with treated 2% KCl water. If bailout occurs, surge balls off perfs and continue with displacement.

Treating Rate: 3-4 BPM
Treating Pressure: 2500 psi
Maximum Treating Pressure: 4200 psi

NOTE: Tag acid with scandium isotope.

936:3

693:4

6. Bleed off pressure. ND stimulation valve. Release packer and drop down to RBP. Release RBP and reset at 4700'. PU and reset packer at 4470'. NU stimulation valve.
7. Pump 900 gallons of 7 1/2% NEFe HCl acid. Space out 63 RCNBS (sp. gr. 1.3) throughout the job. Displace acid to bottom perforation with treated 2% KCl water. If bailout occurs, surge balls off perfs and continue with displacement.

Treating Rate: 4-5 BPM
Treating Pressure: 2500 psi
Maximum Treating Pressure: 4200 psi

RDMO stimulation company.

8. ND stimulation valve. Release packer and drop down to RBP. Release RBP and reset at 4800'. PU and set packer at 4500'.
9. Swab test well recording rates/volumes/cuts.
10. Release packer and drop down to RBP. Release RBP and POOH.
11. RU electric line. RU packoff-head on top of BOP. TIH with 3 5/8" PRISM tool. Log from 5000' to 4500'. POOH and evaluate results prior to calling out frac job.
12. MIRU stimulation company. ND BOP. NU stimulation valve. RU surface lines and test to 4500 psi. Fracture stimulate the San Andres perforations (4569'-4749', total 78 holes) according to the attached fracture stimulation schedule. Radioactively tag the pad and sand stages with Iridium and Antimony isotopes respectively.

Fracture Fluid Volume/Type

Proppant

Treating Rate

Treating Pressure

Maximum Treating Pressure

= 37,000 gallons Boregel 3.5185

= 150,800 lbs 20/40 Ottawa sand

= 25 BPM

= 2500 psi

= 4200 psi

Flush stimulation to top perforation with treated 2% KCl water.
13. Shut well in to RD stimulation company and RU flowline. Leave well SI overnight. Flow well back on small choke to recover load water.
14. Kill well with treated 2% KCl water. ND frac valve. NU BOP. RIH with 4 3/4" bit and 2 7/8" tubing. Reverse out sand fill. POOH.
15. RU electric line. RU packoff-head on top of BOP. TIH with 3 5/8" PRISM tool. Log from 5000' to 4500'. POOH and RD electric line.