

McCallister State #7 Completion Procedure (Continued)

casing during the frac. All sand stages will be tagged as per Protechnics using SC-46. The recommended procedure is as follows:

Pump Schedule:

Stage	Fluid Type	Vol. (gals)	Conc.	Proppant	Isotope	Rate	Press
Pad	Delta-Frac 25	21000	-	-	-	35	5500
Prop-Laden	Delta-Frac 25	4000	1	16/30 PR-2000	Sc-46	35	5200
Prop-Laden	Delta-Frac 25	5000	2	16/30 PR-2000	Sc-46	35	4950
Prop-Laden	Delta-Frac 25	6000	3	16/30 PR-2000	Sc-46	35	5100
Prop-Laden	Delta-Frac 25	7000	4	16/30 PR-2000	Sc-46	35	5300
Prop-Laden	Delta-Frac 25	8000	5	16/30 PR-2000	Sc-46	35	5600
Prop-Laden	Delta-Frac 25	9000	6	16/30 PR-2000	Sc-46	35	6000
Flush	Base Gel	2350	-	-	-	35	5000

Frac Fluid Details: Mixed with 70,000 gallons of fresh water

<u>Additives per 1000 gals</u>	<u>Description</u>	<u>Add Method</u>
6.25 gals LGC-IV	Gellant	Batch-mixed
1.00 gals Lo-Surf 300	Surfactant	Batch-mixed
2.00 gals Clay-Fix II	KCl Subst.	Batch-mixed
0.30 lbs Be-5	Bactericide	Batch-mixed
1.00 lbs* GBW-30	Breaker	On-the-fly
1.75 gals* BC-2	X-Link/pH	On-the-fly
1.00 lbs* Opti-Flo HTE	Breaker	On-the-fly

*Loading may vary based upon pre-job testing.

Proppant Details: 1540 Sacks 16/30 AcFrac PR-2000

Job Notes:

- (a) Rig up two 3" lines and test to 9,000 psi.
 - Rig up an in-line densometer close to the wellhead. (used for marking flush only)
 - (c) Conduct onsite break tests before the treatment.
 - (d) A (2) to (3) hour break to (10) cp is required. The estimated pumping time is 50 minutes.
 - (e) Supply sufficient iron to connect to third party manifold.
 - (f) Casing pop-off set to 500 psi.
21. Once the job is flushed start flowing the load back at $\pm 1-2$ bpm on a 18/64" choke as soon as possible.
 22. Flow and swab test as needed.
 23. Kill as necessary w/ KCl water and check fill w/ sandline. Release packer and POH w/ 3 1/2" workstring laying down. Change out BOP rams to 2 7/8".
 24. PU TAC & SN and RIH on 2 7/8", space out the tubing w/SN @ $\pm 7,200'$ and TAC @ $\pm 6,300'$.
 25. MIRU Wedge and perform a post-frac GR (non-spectral) to determine fracture placement.
 26. ND BOPE and set the TAC. NU wellhead.
 27. RIH with IP & rod string. Space out plunger and hang well on.
 28. Reconnect surface equipment. Start well pumping on test to production facilities.

Approvals:

D.K. Barker
New Mexico Engineering Supervisor

R.L. Kleiv
Senior Drilling Engineer

Distr:

A. Schwandt
R. Skinner
J. Patterson
G. Muse
B. Longmire
S. Landon
Well File