

11) Frac the MISSISSIPPI (Stage 1) as follows using the chemical concentrations below:

	Surfactant (gpt)	ClO ₂ (ppm)	Scale Inhibitor (gpt)
Archer/Bosque	0	2-3	0.1
Cimarron/Bosque.	0	2-3	0.25

NOTE: Pump FR as required to obtain minimum rate of 75 bpm. DO NOT EXCEED 0.75 gal/1000 concentration of FR without prior discussion with engineer.

STAGE 1								
P-Sleeve @ 11,195'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	1000	24					1.2
Slickwater	70	17211	410					5.9
Slickwater	70	12800	305	40/70	0.25	Garnet	3200	4.4
Slickwater	70	13000	310	40/70	0.50	Genoa	6500	4.4
Slickwater	70	3150	75					1.1
Slickwater	70	12933	308	40/70	0.75	Genoa	9700	4.4
Slickwater	70	3150	75					1.1
Slickwater	70	9700	231	40/70	1.00	Genoa	9700	3.3
Slickwater	70	3150	75					1.1
Slickwater	70	3200	76	40/70	1.00	Garnet	3200	1.1
Slickwater	70	14699	350					5.0
TOTAL		93,994	2,238				32,300	32.8

Frac the MISSISSIPPI (Stage 2) as follows:
Drop 2.000" ball. Reduce rate to 5-10 bpm at +/- 247 bbls (50 bbls before ball seats).

STAGE 2								
Port @ 11,052'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	750	18					0.9
Slickwater	75	19344	461					6.1
Slickwater	75	14400	343	40/70	0.25	Garnet	3600	4.6
Slickwater	75	14600	348	40/70	0.50	Genoa	7300	4.6
Slickwater	75	3150	75					1.0
Slickwater	75	14533	346	40/70	0.75	Genoa	10900	4.6
Slickwater	75	3150	75					1.0
Slickwater	75	10900	260	40/70	1.00	Genoa	10900	3.5
Slickwater	75	3150	75					1.0
Slickwater	75	3600	86	40/70	1.00	Garnet	3600	1.1
Slickwater	75	14606	348					4.6
TOTAL		102,184	2,433				36,300	33.1

Frac the MISSISSIPPI (Stage 3) as follows:
Drop 2.063" ball. Reduce rate to 5-10 bpm at +/- 244 bbls (50 bbls before ball seats).

STAGE 3								
Port @ 10,866'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	500	12					0.6
Slickwater	80	19878	473					5.9
Slickwater	80	14800	352	40/70	0.25	Garnet	3700	4.4
Slickwater	80	15000	357	40/70	0.50	Genoa	7500	4.5
Slickwater	80	3150	75					0.9
Slickwater	80	14933	356	40/70	0.75	Genoa	11200	4.4
Slickwater	80	3150	75					0.9
Slickwater	80	11200	267	40/70	1.00	Genoa	11200	3.3
Slickwater	80	3150	75					0.9
Slickwater	80	3700	88	40/70	1.00	Garnet	3700	1.1
Slickwater	80	14485	345					4.3
TOTAL		103,946	2,475				37,300	31.4

Frac the MISSISSIPPI (Stage 4) as follows:
 Drop 2.125" ball. Reduce rate to 5-10 bpm at +/- 241 bbls (50 bbls before ball seats).

STAGE 4								
Port @ 10,635'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	85	16322	365					4.3
Slickwater	85	11600	276	40/70	0.25	Garnet	2900	3.2
Slickwater	85	11400	271	40/70	0.50	Genoa	5700	3.2
Slickwater	85	3150	75					0.9
Slickwater	85	11467	273	40/70	0.75	Genoa	8600	3.2
Slickwater	85	3150	75					0.9
Slickwater	85	8600	205	40/70	1.00	Genoa	8600	2.4
Slickwater	85	3150	75					0.9
Slickwater	85	2900	69	40/70	1.00	Garnet	2900	0.8
Slickwater	85	14335	341					4.0
TOTAL		85,324	2,032				28,700	24.1

Frac the MISSISSIPPI (Stage 5) as follows:
 Drop 2.188" ball. Reduce rate to 5-10 bpm at +/- 238 bbls (50 bbls before ball seats).

STAGE 5								
Port @ 10,444'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	90	24678	588					6.5
Slickwater	90	18400	438	40/70	0.25	Garnet	4600	4.9
Slickwater	90	18600	443	40/70	0.50	Genoa	9300	4.9
Slickwater	90	3150	75					0.8
Slickwater	90	18533	441	40/70	0.75	Genoa	13900	4.9
Slickwater	90	3150	75					0.8
Slickwater	90	13900	331	40/70	1.00	Genoa	13900	3.7
Slickwater	90	3150	75					0.8
Slickwater	90	4600	110	40/70	1.00	Garnet	4600	1.2
Slickwater	90	14210	338					3.8
TOTAL		122,622	2,920				46,300	32.7

Frac the MISSISSIPPI (Stage 6) as follows:
 Drop 2.250" ball. Reduce rate to 5-10 bpm at +/- 236 bbls (50 bbls before ball seats).

STAGE 6								
Port @ 10,303'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	95	15078	359					3.8
Slickwater	95	11200	267	40/70	0.25	Garnet	2800	2.8
Slickwater	95	11400	271	40/70	0.50	Genoa	5700	2.9
Slickwater	95	3150	75					0.8
Slickwater	95	11333	270	40/70	0.75	Genoa	8500	2.8
Slickwater	95	3150	75					0.8
Slickwater	95	8500	202	40/70	1.00	Genoa	8500	2.1
Slickwater	95	3150	75					0.8
Slickwater	95	2800	67	40/70	1.00	Garnet	2800	0.7
Slickwater	95	14119	336					3.5
TOTAL		84,130	2,003				28,300	21.3

Frac the MISSISSIPPI (Stage 7) as follows:
 Drop 2.313" ball. Reduce rate to 5-10 bpm at +/- 232 bbls (50 bbls before ball seats).

STAGE 7								
Port @ 10,079'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	24389	581					5.8
Slickwater	100	18400	438	40/70	0.25	Garnet	4600	4.4
Slickwater	100	18200	433	40/70	0.50	Genoa	9100	4.3
Slickwater	100	3150	75					0.8
Slickwater	100	18267	435	40/70	0.75	Genoa	13700	4.3
Slickwater	100	3150	75					0.8
Slickwater	100	13700	326	40/70	1.00	Genoa	13700	3.3
Slickwater	100	3150	75					0.8
Slickwater	100	4600	110	40/70	1.00	Garnet	4600	1.1
Slickwater	100	13973	333					3.3
TOTAL		121,228	2,886				45,700	29.1

Frac the MISSISSIPPI (Stage 8) as follows:
 Drop 2.375" ball. Reduce rate to 5-10 bpm at +/- 229 bbls (50 bbls before ball seats).

STAGE 8								
Port @ 9,892'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	20122	479					4.8
Slickwater	100	15200	362	40/70	0.25	Garnet	3800	3.6
Slickwater	100	15000	357	40/70	0.50	Genoa	7500	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	15067	359	40/70	0.75	Genoa	11300	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	11300	269	40/70	1.00	Genoa	11300	2.7
Slickwater	100	3150	75					0.8
Slickwater	100	3800	90	40/70	1.00	Garnet	3800	0.9
Slickwater	100	13851	330					3.3
TOTAL		104,040	2,477				37,700	25.0

Frac the MISSISSIPPI (Stage 9) as follows:
 Drop 2.438" ball. Reduce rate to 5-10 bpm at +/- 226 bbls (50 bbls before ball seats).

STAGE 9								
Port @ 9,698'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	15544	370					3.7
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	2.8
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	8800	210	40/70	1.00	Genoa	8800	2.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	13725	327					3.3
TOTAL		85,603	2,038				29,200	20.6

Frac the MISSISSIPPI (Stage 10) as follows:
 Drop 2.500" ball. Reduce rate to 5-10 bpm at +/- 223 bbls (50 bbls before ball seats).

STAGE 10								
Port @ 9,505'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	25600	610					6.1
Slickwater	100	19200	457	40/70	0.25	Garnet	4800	4.6
Slickwater	100	19200	457	40/70	0.50	Genoa	9600	4.6
Slickwater	100	3150	75					0.8
Slickwater	100	19200	457	40/70	0.75	Genoa	14400	4.6
Slickwater	100	3150	75					0.8
Slickwater	100	14400	343	40/70	1.00	Genoa	14400	3.4
Slickwater	100	3150	75					0.8
Slickwater	100	4800	114	40/70	1.00	Garnet	4800	1.1
Slickwater	100	13599	324					3.2
TOTAL		125,699	2,993				48,000	30.2

Frac the MISSISSIPPI (Stage 11) as follows:
 Drop 2.563" ball. Reduce rate to 5-10 bpm at +/- 220 bbls (50 bbls before ball seats).

STAGE 11								
Port @ 9,313'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	24989	595					5.9
Slickwater	100	18800	448	40/70	0.25	Garnet	4700	4.5
Slickwater	100	18800	448	40/70	0.50	Genoa	9400	4.5
Slickwater	100	3150	75					0.8
Slickwater	100	18667	444	40/70	0.75	Genoa	14000	4.4
Slickwater	100	3150	75					0.8
Slickwater	100	14000	333	40/70	1.00	Genoa	14000	3.3
Slickwater	100	3150	75					0.8
Slickwater	100	4700	112	40/70	1.00	Garnet	4700	1.1
Slickwater	100	13474	321					3.2
TOTAL		123,130	2,932				46,800	29.6

Frac the MISSISSIPPI (Stage 12) as follows:
 Drop 2.625" ball. Reduce rate to 5-10 bpm at +/- 217 bbls (50 bbls before ball seats).

STAGE 12								
Port @ 9,125'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	15611	372					3.7
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	2.8
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	8800	210	40/70	1.00	Genoa	8800	2.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	13352	318					3.2
TOTAL		85,496	2,036				29,300	20.6

Frac the MISSISSIPPI (Stage 13) as follows:
 Drop 2.688" ball. Reduce rate to 5-10 bpm at +/- 214 bbls (50 bbls before ball seats).

STAGE 13								
Port @ 8,934'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	19344	461					4.6
Slickwater	100	14400	343	40/70	0.25	Garnet	3600	3.4
Slickwater	100	14600	348	40/70	0.50	Genoa	7300	3.5
Slickwater	100	3150	75					0.8
Slickwater	100	14533	346	40/70	0.75	Genoa	10900	3.5
Slickwater	100	3150	75					0.8
Slickwater	100	10900	260	40/70	1.00	Genoa	10900	2.6
Slickwater	100	3150	75					0.8
Slickwater	100	3600	86	40/70	1.00	Garnet	3600	0.9
Slickwater	100	13227	315					3.1
TOTAL		100,305	2,388				36,300	24.1

Frac the MISSISSIPPI (Stage 14) as follows:
 Drop 2.750" ball. Reduce rate to 5-10 bpm at +/- 212 bbls (50 bbls before ball seats).

STAGE 14								
Port @ 8,758'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	18133	432					4.3
Slickwater	100	13600	324	40/70	0.25	Garnet	3400	3.2
Slickwater	100	13600	324	40/70	0.50	Genoa	6800	3.2
Slickwater	100	3150	75					0.8
Slickwater	100	13600	324	40/70	0.75	Genoa	10200	3.2
Slickwater	100	3150	75					0.8
Slickwater	100	10200	243	40/70	1.00	Genoa	10200	2.4
Slickwater	100	3150	75					0.8
Slickwater	100	3400	81	40/70	1.00	Garnet	3400	0.8
Slickwater	100	13113	312					3.1
TOTAL		95,346	2,270				34,000	22.9

Frac the MISSISSIPPI (Stage 15) as follows:
 Drop 2.813" ball. Reduce rate to 5-10 bpm at +/- 208 bbls (50 bbls before ball seats).

STAGE 15								
Port @ 8,540'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	19733	470					4.7
Slickwater	100	14800	352	40/70	0.25	Garnet	3700	3.5
Slickwater	100	14800	352	40/70	0.50	Genoa	7400	3.5
Slickwater	100	3150	75					0.8
Slickwater	100	14800	352	40/70	0.75	Genoa	11100	3.5
Slickwater	100	3150	75					0.8
Slickwater	100	11100	264	40/70	1.00	Genoa	11100	2.6
Slickwater	100	3150	75					0.8
Slickwater	100	3700	88	40/70	1.00	Garnet	3700	0.9
Slickwater	100	12971	309					3.1
TOTAL		101,604	2,419				37,000	24.4

Frac the MISSISSIPPI (Stage 16) as follows:
 Drop 2.875" ball. Reduce rate to 5-10 bpm at +/- 206 bbls (50 bbls before ball seats).

STAGE 16								
Port @ 8,398'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	20267	483					4.8
Slickwater	100	15200	362	40/70	0.25	Garnet	3800	3.6
Slickwater	100	15200	362	40/70	0.50	Genoa	7600	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	15200	362	40/70	0.75	Genoa	11400	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	11400	271	40/70	1.00	Genoa	11400	2.7
Slickwater	100	3150	75					0.8
Slickwater	100	3800	90	40/70	1.00	Garnet	3800	0.9
Slickwater	100	12878	307					3.1
TOTAL		103,645	2,468				38,000	24.9

Frac the MISSISSIPPI (Stage 17) as follows:
 Drop 2.938" ball. Reduce rate to 5-10 bpm at +/- 203 bbls (50 bbls before ball seats).

STAGE 17								
Port @ 8,205'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	19733	470					4.7
Slickwater	100	14800	352	40/70	0.25	Garnet	3700	3.5
Slickwater	100	14800	352	40/70	0.50	Genoa	7400	3.5
Slickwater	100	3150	75					0.8
Slickwater	100	14800	352	40/70	0.75	Genoa	11100	3.5
Slickwater	100	3150	75					0.8
Slickwater	100	11100	264	40/70	1.00	Genoa	11100	2.6
Slickwater	100	3150	75					0.8
Slickwater	100	6300	150	40/70	1.00	Garnet	3700	1.5
Slickwater	100	12753	304					3.0
TOTAL		103,986	2,476				37,000	25.0

Frac the MISSISSIPPI (Stage 18) as follows:
 Drop 3.000" ball. Reduce rate to 5-10 bpm at +/- 200 bbls (50 bbls before ball seats).

STAGE 18								
Port @ 8,023'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	24922	593					5.9
Slickwater	100	18800	448	40/70	0.25	Garnet	4700	4.5
Slickwater	100	18600	443	40/70	0.50	Genoa	9300	4.4
Slickwater	100	3150	75					0.8
Slickwater	100	18667	444	40/70	0.75	Genoa	14000	4.4
Slickwater	100	3150	75					0.8
Slickwater	100	14000	333	40/70	1.00	Genoa	14000	3.3
Slickwater	100	3150	75					0.8
Slickwater	100	4700	112	40/70	1.00	Garnet	4700	1.1
Slickwater	100	12634	301					3.0
TOTAL		122,023	2,905				46,700	29.3

Frac the MISSISSIPPI (Stage 19) as follows:
 Drop 3.063" ball. Reduce rate to 5-10 bpm at +/- 197 bbls (50 bbls before ball seats).

STAGE 19								
Port @ 7,833'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	15544	370					3.7
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	2.8
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	8800	210	40/70	1.00	Genoa	8800	2.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	12511	298					3.0
TOTAL		84,388	2,009				29,200	20.3

Frac the MISSISSIPPI (Stage 20) as follows:
 Drop 3.125" ball. Reduce rate to 5-10 bpm at +/- 194 bbls (50 bbls before ball seats).

STAGE 20								
Port @ 7,598'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	20122	479					4.8
Slickwater	100	15200	362	40/70	0.25	Garnet	3800	3.6
Slickwater	100	15000	357	40/70	0.50	Genoa	7500	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	15067	359	40/70	0.75	Genoa	11300	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	11300	269	40/70	1.00	Genoa	11300	2.7
Slickwater	100	3150	75					0.8
Slickwater	100	3800	90	40/70	1.00	Garnet	3800	0.9
Slickwater	100	12358	294					2.9
TOTAL		102,547	2,442				37,700	24.7

Frac the MISSISSIPPI (Stage 21) as follows:
 Drop 3.188" ball. Reduce rate to 5-10 bpm at +/- 191 bbls (50 bbls before ball seats).

STAGE 21								
Port @ 7,452'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	20722	493					4.9
Slickwater	100	15600	371	40/70	0.25	Garnet	3900	3.7
Slickwater	100	15600	371	40/70	0.50	Genoa	7800	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	15467	368	40/70	0.75	Genoa	11600	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	11600	276	40/70	1.00	Genoa	11600	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	3900	93	40/70	1.00	Garnet	3900	0.9
Slickwater	100	12263	292					2.9
TOTAL		104,852	2,496				38,800	25.2

Frac the MISSISSIPPI (Stage 22) as follows:
 Drop 3.250" ball. Reduce rate to 5-10 bpm at +/- 189 bbls (50 bbls before ball seats).

STAGE 22								
Port @ 7,264'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	19878	473					4.7
Slickwater	100	14800	352	40/70	0.25	Garnet	3700	3.5
Slickwater	100	15000	357	40/70	0.50	Genoa	7500	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	14933	356	40/70	0.75	Genoa	11200	3.6
Slickwater	100	3150	75					0.8
Slickwater	100	11200	267	40/70	1.00	Genoa	11200	2.7
Slickwater	100	3150	75					0.8
Slickwater	100	3700	88	40/70	1.00	Garnet	3700	0.9
Slickwater	100	12140	289					2.9
TOTAL		101,351	2,413				37,300	24.4

Frac the MISSISSIPPI (Stage 23) as follows:
 Drop 3.313" ball. Reduce rate to 5-10 bpm at +/- 186 bbls (50 bbls before ball seats).

STAGE 23								
Port @ 7,071'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	15611	372					3.7
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	2.8
Slickwater	100	11800	281	40/70	0.50	Genoa	5900	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	8800	210	40/70	1.00	Genoa	8800	2.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	12015	286					2.9
TOTAL		84,159	2,004				29,300	20.3

Frac the MISSISSIPPI (Stage 24) as follows:
 Drop 3.375" ball. Reduce rate to 5-10 bpm at +/- 183 bbls (50 bbls before ball seats).

STAGE 24								
Port @ 6,876 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	25678	611					6.1
Slickwater	100	19200	457	40/70	0.25	Garnet	4800	4.6
Slickwater	100	19200	457	40/70	0.50	Genoa	9600	4.6
Slickwater	100	3150	75					0.8
Slickwater	100	19333	460	40/70	0.75	Genoa	14500	4.6
Slickwater	100	3150	75					0.8
Slickwater	100	14500	345	40/70	1.00	Genoa	14500	3.5
Slickwater	100	3150	75					0.8
Slickwater	100	4800	114	40/70	1.00	Garnet	4800	1.1
Slickwater	100	11888	283					2.8
TOTAL		124,299	2,959				48,200	29.8

Frac the MISSISSIPPI (Stage 25) as follows:
 Drop 3.438" ball. Reduce rate to 5-10 bpm at +/- 180 bbls (50 bbls before ball seats).

STAGE 25								
Port @ 6,683 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	15544	370					3.7
Slickwater	100	11600	276	40/70	0.25	Garnet	2900	2.8
Slickwater	100	11600	276	40/70	0.50	Genoa	5800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	11733	279	40/70	0.75	Genoa	8800	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	8800	210	40/70	1.00	Genoa	8800	2.1
Slickwater	100	3150	75					0.8
Slickwater	100	2900	69	40/70	1.00	Garnet	2900	0.7
Slickwater	100	11762	280					2.8
TOTAL		83,640	1,991				29,200	20.2

Frac the MISSISSIPPI (Stage 26) as follows:
 Drop 3.500" ball. Reduce rate to 5-10 bpm at +/- 177 bbls (50 bbls before ball seats).

STAGE 26								
Port @ 6,491 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	25600	610					6.1
Slickwater	100	19200	457	40/70	0.25	Garnet	4800	4.6
Slickwater	100	19200	457	40/70	0.50	Genoa	9600	4.6
Slickwater	100	3150	75					0.8
Slickwater	100	19200	457	40/70	0.75	Genoa	14400	4.6
Slickwater	100	3150	75					0.8
Slickwater	100	14400	343	40/70	1.00	Genoa	14400	3.4
Slickwater	100	3150	75					0.8
Slickwater	100	4800	114	40/70	1.00	Garnet	4800	1.1
Slickwater	100	11637	277					2.8
TOTAL		123,737	2,946				48,000	29.7

Frac the MISSISSIPPI (Stage 27) as follows:
 Drop 3.563" ball. Reduce rate to 5-10 bpm at +/- 174 bbls (50 bbls before ball seats).

STAGE 27								
Port @ 6,297 '								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	20722	493					4.9
Slickwater	100	15600	371	40/70	0.25	Garnet	3900	3.7
Slickwater	100	15600	371	40/70	0.50	Genoa	7800	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	15467	368	40/70	0.75	Genoa	11600	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	11600	276	40/70	1.00	Genoa	11600	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	3900	93	40/70	1.00	Garnet	3900	0.9
Slickwater	100	11511	274					2.7
TOTAL		104,100	2,479				38,800	25.0

Frac the MISSISSIPPI (Stage 28) as follows:
 Drop 3.625" ball. Reduce rate to 5-10 bpm at +/- 171 bbls (50 bbls before ball seats).

STAGE 28								
Port @ 6,150'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	20656	492					4.9
Slickwater	100	15600	371	40/70	0.25	Garnet	3900	3.7
Slickwater	100	15400	367	40/70	0.50	Genoa	7700	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	15467	368	40/70	0.75	Genoa	11600	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	11600	276	40/70	1.00	Genoa	11600	2.8
Slickwater	100	3150	75					0.8
Slickwater	100	3900	93	40/70	1.00	Garnet	3900	0.9
Slickwater	100	11416	272					2.7
TOTAL		103,737	2,470				38,700	24.9

Frac the MISSISSIPPI (Stage 29) as follows:
 Drop 3.688" ball. Reduce rate to 5-10 bpm at +/- 168 bbls (50 bbls before ball seats).

STAGE 29								
Port @ 5,911'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	20411	486					4.9
Slickwater	100	15200	362	40/70	0.25	Garnet	3800	3.6
Slickwater	100	15400	367	40/70	0.50	Genoa	7700	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	15333	365	40/70	0.75	Genoa	11500	3.7
Slickwater	100	3150	75					0.8
Slickwater	100	11500	274	40/70	1.00	Genoa	11500	2.7
Slickwater	100	3150	75					0.8
Slickwater	100	3800	90	40/70	1.00	Garnet	3800	0.9
Slickwater	100	11259	268					2.7
TOTAL		102,604	2,443				38,300	24.7

Frac the MISSISSIPPI (Stage 30) as follows:
 Drop 3.750" ball. Reduce rate to 5-10 bpm at +/- 165 bbls (50 bbls before ball seats).

STAGE 30								
Port @ 5,765'								
Fluid	Rate	Vol, gal	Vol, bbl	Prop	Prop Con	Prop type	Prop, lbs	Time, min
15% HCl acid	20	250	6					0.3
Slickwater	100	11589	276					2.8
Slickwater	100	8800	210	40/70	0.25	Garnet	2200	2.1
Slickwater	100	8800	205	40/70	0.50	Genoa	4300	2.0
Slickwater	100	3150	75					0.8
Slickwater	100	8667	206	40/70	0.75	Genoa	6500	2.1
Slickwater	100	3150	75					0.8
Slickwater	100	6500	155	40/70	1.00	Genoa	6500	1.5
Slickwater	100	3150	75					0.8
Slickwater	100	2200	52	40/70	1.00	Garnet	2200	0.5
Slickwater	100	11164	266					2.7
TOTAL		67,220	1,600				21,700	16.2

TOTAL FRAC JOB VOLUMES: 72,641 bbls 1,110,100 lbs, Prop

- 12) Suck manifold and iron dry with vacuum truck. RDMO frac crew. ND wellhead isolation tool. Transfer bottoms to 2 frac tanks.
- 13) Tie flowline to B-Section. Leave well shut in for 24 hrs for resin coat to activate before opening well to flowback. Keep line laid from B-Section and open to flowback tanks until production tree is installed. Send flowback reports to KSFlowback@sandrigeenergy.com at the following times: 5 am, 1 pm, and 9 pm.