

**Andrews University 41-32 #7**

New Drlg/\$2,312,000/CWEI GWI: 100

API: #42-003-45113

AFE: #131217/

	Andrews University 41-32	7	77	111	121					
8/31/13	Andrews University 41-32	7	63	101	4					
9/1/13	Andrews University 41-32	7	63	126	148					
	Well on host because goes down on false pump off from gas interference & BPV working ,holding pressure & well choked									
9/2/13	Andrews University 41-32	7	44	117	0					
	Well on host because goes down on false pump off from gas interference & BPV working ,holding pressure & well choked									

06-17-13 NU csg valves above surface; Clean & restore location; Est Daily Comp \$4570

06-18-13 MI RU Halliburton Wireline & kill truck. TIH w/ logging tools. Tagged up @ 10,046'.  
 Logged CSNG/CNL from 10,044' to 5000'; Logged GR from 10,046' to Surface. Logged  
 RCBL/CCL from 10,038' to 3000' w/ 1500 psi. Est TOC @ 3269'. RD Halliburton Wireline  
 & kill truck. FU WH; Est Daily Comp \$13,700  
 Est Drlg \$1,235,982; Est Comp \$18,270; Est Tot \$1,254,252

06-19/20-13 Ready to pickle & spot; Est Daily Comp \$1000  
 Est Drlg \$1,235,982; Est Comp \$19,270; Est Tot \$1,255,252

06-21/23-13 Ready to pickle & spot; Est Daily Comp \$1500  
 Est Drlg \$1,235,982; Est Comp \$20,770; Est Tot \$1,256,752

06-24--13 MI RU PU; NU BOP; Set catwalk & racks. Unload & rack 318 jts. 2 7/8" 8rd eue 6.5# L80  
 tbg. Tally tbg. P/u & TIH w/ 247 jts tbg. SIW SDFN; Est Daily Comp \$93,450  
 Est Drlg \$1,235,982; Est Comp \$114,220; Est Tot \$1,350,202

06-25-13 AOL @ 7:00 a.m. Bad tbg tally. POOH & tally tbg. TIH w/ tbg. Tag up @ 10,066'. L/d 1 jt.  
 SIW SDFN; Est Daily Comp \$6450  
 Est Drlg \$1,235,982; Est Comp \$120,670; Est Tot \$1,356,652

06-26-13 AOL @ 7:00 a.m. MI RU Reverse unit. P/u swivel; DO cement to 10,110'kb. Circulate  
 clean. POOH L/d 3 jts tbg. EOT @ 9995'kb. RD Reverse unit. MI RU Shack Energy  
 Services & 3 vacuum trucks loaded w/ 2% kcl. Establish circulation; test csg to 4841 psi.  
 Good test. Pickle tubulars w/ 500 gals xylene + 500 gals 15% hcl acid. Spot 1000 gals  
 10% Acetic acid @ 9995'. RD Shack Energy Services & vacuum trucks. POOH w/80 jts  
 tbg. SIW SDFN; Est Daily Comp \$19,450  
 Est Drlg \$1,235,982; Est Comp \$140,120; Est Tot \$1,376,102

06-27-13 Key Energy Services POH and LD 225 JTS of 2 7/8" L80 TBG. ND BOP and NU cap  
 flange. RD Key. Key work on rig and MO Saturday. Ready to perf lower; Est Daily Comp \$5450  
 Est Drlg \$1,235,982; Est Comp \$145,570; Est Tot \$1,381,552

06-28/30-13 Ready to perf lowers; Est Daily Comp \$1000  
 Est Drlg \$1,235,982; Est Comp \$146,570; Est Tot \$1,382,552

07-01-13 Ready to perf lowers; Est Daily Comp \$500  
 Est Drlg \$1,235,982; Est Comp \$147,170; Est Tot \$1,383,052

07-02/07-13 Ready to perf lowers; Est Daily Comp \$500  
 Est Drlg \$1,235,982; Est Comp \$147,470; Est Tot \$1,386,052

07-08-13 Ready to perf lowers; Est Daily Comp \$500  
 Est Drlg \$1,235,982; Est Comp \$147,970; Est Tot \$1,386,552

07-09-13 Ready to perf lowers; Est Daily Comp \$500  
 Est Drlg \$1,235,982; Est Comp \$148,470; Est Tot \$1,387,052

07-10-13 Ready to perf lowers; Est Daily Comp \$500  
 Est Drlg \$1,235,982; Est Comp \$148,970; Est Tot \$1,387,552

07-11-13 Ready to perf lowers; Est Daily Comp \$500  
 Est Drlg \$1,235,982; Est Comp \$149,470; Est Tot \$1,388,052

07-12/14-13 Ready to perf lowers; Est Daily Comp \$1500  
 Est Drlg \$1,235,982; Est Comp \$150,970; Est Tot \$1,389,552

07-15-13 Ready to perf lowers; Est Daily Comp \$500  
 Est Drlg \$1,235,982; Est Comp \$151,470; Est Tot \$1,390,052

07-16-13 Ready to perf lowers; NU frac stack; spot frac tanks; Est Daily Comp \$2250

07-17-13	Est Drlg \$1,235,982; Est Comp \$154,220; Est Tot \$1,390,202 Ready to perf lowers. NU frac stack. Spot frac tanks; Est Daily Comp \$2250 Est Drlg \$1,235,982; Est Comp \$156,470; Est Tot \$1,392,452
07-18-13	Ready to perf lowers; Est Daily Comp \$1750 Est Drlg \$1,235,982; Est Comp \$158,220; Est Tot \$1,394,202
07-19/21-13	Ready to perf lowers; Est Daily Comp \$1500 Est Drlg \$1,235,982; Est Comp \$159,720; Est Tot \$1,395,702
07-22-13	Frac Specialties pumping services. Sand fracture treated 7 stages. Pumped 37,548 GALS treated water, 14,032 GALS NeFe 15 % HCL acid, 248,934 GALS Water Frac G-R (15) crosslinked, 529,620 GALS Water Frac G-R (15), 606,863 LBS of GARNETT 20/40 proppant, 458,031 LBS OTTOWA 20/40 proppant. Total Frac fluids 778,554 GALS. Total proppant 1,064,894 LBS Total. BLWTR 19,765 BBLS.
Stage 1	MIRU CasedHole Solutions wireline. Perforated Lower Wolfcamp @ 10,020'-10,096' (50 holes). FBDP 2920 PSI. Pumped 4,998 GALS treated water, 4,032 GALS of NeFe 15 % HCL acid, 28,182 GALS Water frac (GR-15) XL 20 LBS/1000 GALS crosslinked gelled fresh water, 52,290 GALS Water Frac (GR-15) 20 LBS/1000 GAL, carrying 85,471 LBS of GARNETT 20/40 LBS proppant. Total Load GALS 89,502. Max Pressure 2011 PSI, average pressure 1876 PSI. Max rate 50.9 BPM, average rate 47 BPM. ISIP 3,002 PSI. BLWTR 2131.
Stage 2	Ran in hole and set CP at 9,920'. Perforated Lower Wolfcamp Lime @ 9,920'-9,578' (62 holes). FBDP-5924 PSI. Pumped 4,746 GALS treated water, 2,000 GALS NeFe 15 % HCL acid, 33,138 GALS Water frac (GR-15) XL 20 LBS/1000 GALS crosslinked gelled fresh water, 85,260 GALS Water Frac (GR-15) 20 LBS/1000 GAL, carrying 117,002 LBS of GARNETT 20/40 LBS proppant. Total Load GALS 125,144. Max Pressure 6379 PSI, average pressure 5869 PSI. Max rate 69.9 BPM, average rate 62 BPM. ISIP-5,534 PSI. BLWTR 2980.
Stage 3	Ran in hole and set CP at 9,568. Perforated Wolfcamp Lime 2 @ 9,568'-9,367' (68 holes). FBDP-3528 PSI. Pumped 3,822 GALS treated water, 2,000 GALS NeFe 15 % HCL acid, 27,300 GALS Water frac (GR-15) XL 20 LBS/1000 GALS crosslinked gelled fresh water, 66,066 GALS Water Frac (GR-15) 20 LBS/1000 GAL, carrying 123,082 LBS GARNETT sand. Total Load GALS 99,188. Total proppant 123,082 LBS. Max Pressure 4403 PSI, average pressure 3597 PSI. Max rate 72 BPM, average rate 71 BPM. ISIP-2613 PSI. BLWTR 2362.
Stage 4	Ran in hole and set CP at 9,340'. Perforated Upper Wolfcamp Lime @ 9,200'-9,317' (holes). FBDP-3177 PSI. Pumped 2,000 GALS NeFe 15 % HCL acid, 30,702 GALS Water frac (GR-15) XL 20 LBS/1000 GALS crosslinked gelled fresh water, 8,190 GALS Water Frac (GR-15) 20 LBS/1000 GAL, carrying 71,364 LBS of GARNETT 20/40 and 96,063 LBS of OTTOWA 20/40 LBS sand. Total Load GALS 40,892. Max Pressure 4937 PSI, average pressure 4331 PSI. Max rate 72 BPM, average rate 59 BPM. ISIP-3177 PSI. BLWTR 974
07-23-13	
Stage 5	Ran in hole and set CP at 9,150'. Perforated Lower Sprayberry @ 8,862'-9,128' (63 holes). FBDP-1124 PSI. Pumped 8,358 GALS treated water, 2,000 GALS NeFe 15 % HCL acid, 42,756 GALS Water frac (GR-15) XL 20 LBS/1000 GALS crosslinked gelled fresh water, 105,924 GALS Water Frac (GR-15) 20 LBS/1000 GAL, carrying 48,621 LBS of GARNETT 20/40 sand and 151,325 LBS of OTTOWA 20/40 LBS sand. Total Load GALS 159,038. Total LBS proppant 199,946. Max Pressure 2766 PSI, average pressure 1920 PSI. Max rate 70.9 BPM, average rate 70.5 BPM. ISIP-1,124 PSI. BLWTR 3787.
Stage 6	Ran in hole and set CP at 8,850'. Perforated Upper Sprayberry 1 @ 8,600'-8,818' (63 holes). FBDP-1149 PSI. Pumped 8,316 GALS treated water, 2,000 GALS NeFe 15 % HCL acid, 47,880 GALS Water frac (GR-15) XL 20 LBS/1000 GALS crosslinked gelled fresh water, 110,292 GALS Water Frac (GR-15) 20 LBS/1000 GAL, carrying 71,341 LBS of GARNETT 20/40 and 163,838 LBS of OTTOWA 20/40 LBS sand. Total Load GALS 168,488. Total LBS proppant 235,179. Max Pressure 2701 PSI, average pressure 2006 PSI. Max rate 71 BPM, average rate 71 BPM. ISIP-1049 PSI. BLWTR 4012.
Stage 7	Ran in hole and set CP at 8,560'. Perforated Upper Sprayberry 2 @ 8,560'-8,254' (64 holes). FBDP-1713 PSI. Pumped 7,308 GALS treated water, 38,976 GALS Water frac (GR-15) XL 20 LBS/1000 GALS crosslinked gelled fresh water, 101,598 GALS Water Frac (GR-15) 20 LBS/1000 GAL, carrying 89,982 LBS of GARNETT 20/40 and 46,805 LBS of OTTOWA 20/40 LBS sand. Total Load GALS 147,882. Total LBS proppant 136,787. Max Pressure 2551 PSI, average pressure 1740 PSI. Max rate 71.1 PM, average rate 70.5 BPM. ISIP-1149 PSI. BLWTR 3521; Est Daily Comp \$538,266 Est Drlg \$1,235,982; Est Comp \$697,986; Est Tot \$1,933,968
07-24-13	Ready to DO plugs; Est Daily Comp \$1550
07-25-13	Ready to DO plugs; Est Daily Comp \$1550 Est Drlg \$1,235,982; Est Comp \$701,086; Est Tot \$1,937,068
07-26-13	Ready to DO plugs; Est Daily Comp \$1050

07-27/28-13 SDFWE; Est Daily Comp \$2100  
Est Drlg \$1,235,982; Est Comp \$704,236; Est Tot \$1,940,218

07-29-13 Ready to DO plugs; Est Daily Comp \$1050  
Est Drlg \$1,235,982; Est Comp \$705,286; Est Tot \$1,941,268

07-30-13 Ready to DO plugs; Est Daily Comp \$1050  
Est Drlg \$1,235,982; Est Comp \$706,336; Est Tot \$1,942,318

07-31-13 Ran 154 jts 2-7/8 tbg. Tag plug @ 7000'. RU reverse unit. DP. Flowing 5-6 bpm. Ran 47 jts. Tag @ 8532'. C/O 25' sand. DP @ 8557'. RT. Tag @ 8814'. C/O 33' sand. DP @ 8847'. Pumped 20 bbls fresh water. Pulled 10 stands. CWI SD Hauled 500 bbls from pit.  
Est Daily Comp \$8050  
Est Drlg \$1,235,982; Est Comp \$725,586; Est Tot \$1,961,568

08-01-13 Ran 10 stands. Picked up 6 jts off rack. Tag @ 9034'. C/O 111' sand. DP @ 9145'. 100 ppm h2s. Well flowing 5-6 bpm. RT. Tag @ 9330'. C/O 5' sand. DP @ 9336'. RT. Tag @ 9539' C/O 20' sand. DP @ 9559'. 200 ppm h2s. RT. Tag @ 9852'. C/O 62' sand. DP @ 9914'. RT. Tag @ 10066' TD. Circulate clean. Pumped 40 bbls fresh water. RD swivel. LD 58 jts 2-7/8 tbg. 250 jts in hole, 68 jts on rack. NU wellhead. Dropped ball and open sub 2300 psi. RD reverse unit. CWI SD. Hauled 3520 bbls from pit. Est Daily Comp \$11,400  
Est Drlg \$1,235,982; Est Comp \$736,986; Est Tot \$1,972,968

08-02-13 RD PU. Clean location. NU well to frac tank. Open on 20/64 choke. Hauled 1200 bbls from frac tank to disposal; Est Daily Comp \$6,300

08-03-13 Well flowed 1450 bbls. Hauled 1320 bbls to disposal; Est Daily Comp \$4,450

08-04-13 Well flowed 360 bbls. Hauled 360 bbls to disposal; Est Daily Comp \$1,450  
Est Drlg \$1,235,982; Est Comp \$749,186; Est Tot \$1,985,168

08-05-13 Well Flowed 300 bbls to test tank. 24 hrs. Did not haul anything from tanks. Est Daily Comp \$350  
Est Drlg \$1,235,982; Est Comp \$738,436; Est Tot \$1,974,418

08-06-13 Well dead. Ready for production. Est Daily Comp \$350  
Est Drlg \$1,235,982; Est Comp \$738,786; Est Tot \$1,974,768

08-07-13 RU Key pulling unit and One Source pump trk. Pumped 180 bbls 10# brine down csg. ND well head. Pulled 56 stands 2-7/8 L80 tbg. CWI SD due to weather; Est Daily Comp \$57,350  
Est Drlg \$1,235,982; Est Comp \$829,420; Est Tot \$2,065,402

08-08-13 Pulled 69 stands 2-7/8 tbg, pump open sub, bit. Ran bull plug, 1-MA jt, 8' sand screen, 2-7/8 x 5-1/2 TAC, SN, packer, 2-3/8 x 2-7/8 crossover, gas separator, 2-7/8 x 2-3/8 crossover, 2' 2-7/8 sub, mechanical SN. Ran 11 stands tbg, TAC set and sheared. Pulled TAC out of hole. PU a new TAC. Ran BAH and 249 jts 2-7/8 L80 tbg (SN @ 8165). ND BOP. NU well head. Set TAC 18 pts. Left csg open to frac tanks. SD Rig down for repairs; Est Daily Comp \$8150  
Est Drlg \$1,235,982; Est Comp \$837,570; Est Tot \$2,073,566

08-09-13 Ran pump 2-1/2 x 1-1/2 x 30, 1- 1-1/2" kbar, 1-26K shear tool, 7- 1-1/2" kbars, 130- 1" kd steel rods w/slim hole couplings, 123- 1.25" fg rods. Could not get pumping unit on down stroke. Snellson moved pumping unit to downstroke Hung well on. Pressure test 500 psi. NU wellhead. Left well SD. Released to production; Est Daily Comp \$8650  
Est Drlg \$1,235,982; Est Comp \$860,320; Est Tot \$2,096,302

08-11-13 Pmpd 0 BO + 289 BW + 0 MCF  
BLW 19,765; BLWR 289 (1%); BLWTR 19,476

08-13-13 Pmpd 0 BO + 304 BW + 20 MCF  
BLW 19,765; BLWR 593 (3%); BLWTR 19,172

08-14-13 Pmpd 0 BO + 388 BW + 8 MCF  
BLW 19,765; BLWR 981 (5%); BLWTR 18,784

08-15-13 Pmpd 0 BO + 221 BW + 0 MCF; well in big htr w/other wells while testing #8 newly fixed & #5 newly lwrdr  
BLW 19,765; BLWR 1202 (6%); BLWTR 18,563

08-16-13 No report

08-17-13 Pmpd 6 BO + 401 BW + 38 MCF

08-18-13 Pmpd 11 BO + 523 BW + 13 MCF BLW 19,765; BLWR 2126 (11%); BLWTR 17,639

08-19-13 Pmpd 28 BO + 492 BW + 15 MCF  
BLW 19,765; BLWR 2618 (13%); BLWTR 17,147

BF_Date	BOPD	MCFD	BWPD
8/20/2013	19	18	418
8/21/2013	22	21	378
8/22/2013	19	25	279

8/23/2013	66	30	374
8/24/2013	85	51	272
8/25/2013	80	58	287
8/26/2013	94	68	285

Date	Lease	WELL #	BOPD	MCFD	BWPD	Tbg PSI	Csg PSI	Inj Rate	Choke Size	Remarks
8/27/2013	Andrews University 41-32	7	94	68	285					
8/28/2013	Andrews University 41-32	7	157	124	270					
8/29/2013	Andrews University 41-32	7	109	145	222					
8/30/13	Andrews University 41-32	7	77	111	121					
8/31/13	Andrews University 41-32	7	63	101	4					
9/1/13	Andrews University 41-32	7	63	126	148					
	Well on host because goes down on false pump off from gas interference & BPV working ,holding pressure & well choked									
9/2/13	Andrews University 41-32	7	44	117	0					
	Well on host because goes down on false pump off from gas interference & BPV working ,holding pressure & well choked									
9/3/2013	Andrews University 41-32	7	47	85	0					
9/6/2013	Andrews University 41-32	7								No test
9/7/2013	Andrews University 41-32	7	30	60	30					
9/8/2013	Andrews University 41-32	7	30	59	36					
9/11/2013	Andrews University 41-32	7	33	40	86					
9/12/2013	Andrews University 41-32	7	28	25	77					
9/13/2013	Andrews University 41-32	7	11	78	15					
9/14/2013	Andrews University 41-32	7	19	50	7					
9/15/2013	Andrews University 41-32	7	25	48	17					
9/16/2013	Andrews University 41-32	7	28	46	31					
9/17/2013	Andrews University 41-32	7	17	45	25					
9/18/2013	Andrews University 41-32	7	19	47	13					
9/19/2013	Andrews University 41-32	7	25	46	20					
9/20/2013	Andrews University 41-32	7	17	43	24					
9/21/2013	Andrews University 41-32	7	28	41	19					
9/22/2013	Andrews University 41-32	7								No test
9/23/2013	Andrews University 41-32	7	28	41	19					
9/24/2013	Andrews University 41-32	7	28	42	21					
9/25/2013	Andrews University 41-32	7	11	44	9					
9/26/2013	Andrews University 41-32	7	36	44	129					

**Andrews University 41-32 # 7**

**Andrews Co., TX**

**Well ID: 04116-007**

**Zone: 1 Field: Block 5**

**AFE#**

## Prep to Add Pay

Oct 23, 2014 Thursday (Day 1)

MI RU PU; Unhang rod; Blew well down. POOH L/d 123 - 1.25" FG rods, 45 - 1" kd rods. Pumped 100 bbls 10lb vrine down csg. SIW SDFN **Need new AFE#**

Daily Cost: \$7,050

Cum. Cost: \$7,050

Oct 24, 2014 Friday (Day 2)

AOL @ 7:00 a.m. Finish POOH; L/d rods. Switch over to pull tbq. ND WH; NU BOP; Release TAC; POOH w/ tbq. SIW SDFWE

Daily Cost: \$8,700

Cum. Cost: \$15,750

Oct 25, 2014 Saturday (Day 3)

SDFWE

Daily Cost: \$500

Cum. Cost: \$16,250

Oct 26, 2014 Sunday (Day 4)

SDFWE

Daily Cost: \$500

Cum. Cost: \$16,750

Oct 27, 2014 Monday (Day 5)

AOL @ 7:00 a.m. Blew well down. RU Standard kill truck. Pumped 50 bbls 10 lb brine to kill H2S gas. MI RU Renegade WL. TIH w/ CIBP; Set CIBP @ 8240'. POOH; Mix 2 sx cmt. TIH w/ dump bailer & dump cmt on CIBP. POOH; RD release Renegade WL. TIH w/ 250 jts tbq. EOT @ 8197'. SIW SDFN

Daily Cost: \$12,200

Cum. Cost: \$28,950

Oct 28, 2014 Tuesday (Day 6)

AOL, RU Shack Energy Services & 3 OneSource transports carrying 360 BBLs H2O/ 2% KCL. Pressure test casing to 4800 lbs and held for 8 minutes, good test. Spot 1000 gal 10% acetic acid @ 8197', displace W/ 205 BBLs. RD SES & transports. MI racks & CW. OneSource PU POH & LD 200 JTS 2 7/8" L80 TBG. SIW & SD 6pm.

Daily Cost: \$13,350

Cum. Cost: \$42,300

Oct 29, 2014 Wednesday (Day 7)

AOL, OneSource PU POH & LD 104 JTS 2 7/8" L80 TBG. ND BOP & NU cap flange. MO 304 JTS TBG to side of local. RDMO PU. Ready for frac stack and to perf lowers. MI frac tanks.

Daily Cost: \$6,750

Cum. Cost: \$49,050

Oct 30, 2014 Thursday (Day 8)

MI 10 frac tanks & 1 acid tank. Ready for frac stack and to perf lowers.

Daily Cost: \$1,100

Cum. Cost: \$50,150

Oct 31, 2014 Friday (Day 9)

Ready for frac stack and to perf lowers.

Daily Cost: \$1,100

Cum. Cost: \$51,250

Nov 1, 2014 Saturday (Day 10)

Ready for frac stack and to perf lowers.

Daily Cost: \$1,100

Cum. Cost: \$52,350

Nov 2, 2014 Sunday (Day 11)

Ready for frac stack and to perf lowers.

Daily Cost: \$1,100

Cum. Cost: \$53,450

Nov 3, 2014 Monday (Day 12)

ND Larkin WH. Cut off bell nipple. NU 7 1/16" x 10k frac stack. NU flowback manifold. MI RU Casedhole Solutions. Perforate stage #1 - 7960'-66'(12 holes), 8010'-16'(12 holes), 8070'-76'(12 holes), 8134'-40'(12 holes), 8200'-06'(12 holes). Casedhole Solutions stayed rigged for 3 stage frac on 11-4-14.

Daily Cost: \$7,150  
Cum. Cost: \$63,350

Nov 4, 2014 Tuesday (Day 13)

Frac with Frac Specialists pumping services. Fracture treated 3 stages for a total of 3 stages. Pumped 17,010 GALS treated water, 4,611 GALS NeFe 15% HCL acid, 168,168 GALS PAD-Water Frac XL G-R (15) and 465,738 GALS FRAC-Water Frac (GR-15) 15 LBS/1000 GAL carrying 60,280 LBS of Garnett 20/40 mesh proppant, and 865,020 LBS of Ottawa 20/40 mesh proppant. Total Load 655,527 GALS. Total proppant 925,300 LBS. BLWTR 15,608 BBLs.

STAGE 1: Set CIBP @ 8240', w/ cement @ 8230' – 8240'. Perforate @ 8,200' – 8,206', 8,134' – 8,140', 8,070' – 8,076', 8,010' – 8,016', 7,960' – 7,966'. Frac Lower Leonard @ 7,960' - 8,206' - 60 holes. FMBD at 5414 PSI, acid was not on spot, broke down when acid spearhead reached perms. Sand fracture treated with a 15LB/1000 GAL cross-linked gel as follows: 4,284 GALS treated water, 3,125 GALS NeFe 15 % HCL acid, 62,370 GALS PAD-WATER Frac, 163,716 GALS FRAC-WATER Frac, 19,208 LBS of Garnett 20/40 mesh proppant, and 306,144 LBS of Ottawa 20/40 mesh proppant. Total load 233,495 GALS. Maximum pressure 6319 PSI, average treating pressure 3727 PSI, maximum pump rate 70.2 BPM, average rate 65 BPM. ISIP-1303 PSI. Frac gradient-0.601 PSI/FT. BLWTR-5559.

STAGE 2: Set plug @ 7,920'. Perforate @ 7,876' – 7,880', 7,838' – 7,842', 7,782' – 7,786', 7,718' – 7,722'. Frac Middle Leonard @ 7,718' - 7,880' - 60 holes. FMBD at 2130 PSI. Sand fracture treated with a 15LB/1000 GAL cross-linked gel as follows: 6,888 GALS treated water, 1,486 GALS NeFe 15 % HCL acid, 56,658 GALS PAD-WATER Frac, 164,346 GALS FRAC-WATER Frac, 19,208 LBS of Garnett 20/40 mesh proppant, and 305,243 LBS of Ottawa 20/40 mesh proppant. Total load 229,378 GALS. Maximum pressure 4221 PSI, average treating pressure 2984 PSI, maximum pump rate 71.7 BPM, average rate 70 BPM. ISIP-1705 PSI. Frac gradient-0.659 PSI/FT. BLWTR-5461.

STAGE 3: Set plug @ 7,610'. Perforate @ 7,547' – 7,551', 7,490' – 7,494', 7,446' – 7,450', 7,387' – 7,391'. Frac Upper Leonard @ 7,387' - 7,551' - 64 holes. FMBD at 1144 PSI. Sand fracture treated with a 15LB/1000 GAL cross-linked gel as follows: 5,838 GALS treated water, 49,140 GALS PAD-WATER Frac, 137,676 GALS FRAC-WATER Frac, 21,864 LBS of Garnett 20/40 mesh proppant, and 253,633 LBS of Ottawa 20/40 mesh proppant. Total load 192,654 GALS. Maximum pressure 3650 PSI, average treating pressure 3225 PSI, maximum pump rate 71.5 BPM, average rate 70.7 BPM. ISIP-1237 PSI. Frac gradient-0.606 PSI/FT. BLWTR-4587.

Daily Cost: \$396,081  
Cum. Cost: \$459,431

Nov 5, 2014 Wednesday (Day 14)

MI & set 3 flowback tanks. NU csg to flowback tanks. Opened well @ 4:00 p.m. 700 psi; 20/64" choke.

Daily Cost: \$2,250  
Cum. Cost: \$461,681

Nov 6, 2014 Thursday (Day 15)

14 hrs flowing, 600 psi, 0 BO, 330 BLWR, 20/64" choke

Daily Cost: \$1,832  
Cum. Cost: \$463,513

Nov 7, 2014 Friday (Day 16)

24 hrs flowing 650 psi 0 BO 1650 BLWR 20/64 choke

Daily Cost: \$4,763  
Cum. Cost: \$468,276

Nov 8, 2014 Saturday (Day 17)

24 hrs flowing 400 psi 0 BO 1210 BLWR 20/64 choke

Daily Cost: \$3,786  
Cum. Cost: \$472,062

Nov 9, 2014 Sunday (Day 18)

24 hrs flowing 300 psi 0 BO 790 BLWR 20/64 choke

Daily Cost: \$2,321  
Cum. Cost: \$474,383

Nov 10, 2014 Monday (Day 19)  
24 hrs flowing 250 psi 0 BO 440 BLWR 20/64 choke

Daily Cost: \$2,076  
Cum. Cost: \$476,459

Nov 11, 2014 Tuesday (Day 20)  
24 hrs flowing 100 psi 0 BO 660 BLWR 20/64 choke

Daily Cost: \$2,565  
Cum. Cost: \$479,024

Nov 12, 2014 Wednesday (Day 21)  
24 hrs flowing 50 psi 0 BO 230 BLWR 20/64" choke

Daily Cost: \$1,832  
Cum. Cost: \$480,856

Nov 13, 2014 Thursday (Day 22)  
24 hrs flowing; 50 psi; 0 BO; 220 BLWR; 20/64" choke

Daily Cost:  
Cum. Cost: \$480,856

Nov 14, 2014 Friday (Day 23)  
24 hrs flowing 50 psi 0 BO 160 BLWR 18/64" choke

Daily Cost:  
Cum. Cost: \$480,856

Nov 15, 2014 Saturday (Day 24)  
24 hrs flowing 0 psi 0 BO 120 BLWR 18/64" choke

Daily Cost:  
Cum. Cost: \$480,856

Nov 16, 2014 Sunday (Day 25)  
24 hrs flowing 0 psi 0 BO 90 BLWR 16/64" choke

Daily Cost:  
Cum. Cost: \$480,856

Nov 17, 2014 Monday (Day 26)  
24 hrs flowing 0 psi 0 BO 80 BLWR 18/64" choke

Daily Cost:  
Cum. Cost: \$480,856

Nov 18, 2014 Tuesday (Day 27)  
24 hrs flowing 0 psi 0 BO 0 BLWR 18/64" choke

Daily Cost:  
Cum. Cost: \$480,856

Nov 19, 2014 Wednesday (Day 28)  
24 hrs flowing 0 psi 0 BO 0 BLWR 18/64" choke MIRU OneSource PU. Leave well open to flowback tanks. SD 5pm.

Daily Cost: \$4,800  
Cum. Cost: \$485,656

Nov 20, 2014 Thursday (Day 29)  
AOL @ 7:00 a.m. Well dead. ND Goat head from frac valve, P/u 5 1/2" RBP & 50 jts tbg. TIH; Set RBP @ 1650.67'. NU kill truck; Circulate 40 bbls 10 lb brine. POOH w/ tbg. ND frac valve; Weld on 5 1/2" bell nipple. NU Type R WH; NU BOP; TIH w/ tbg; Latch onto RBP & release. POOH w/ tbg. L/d RBP & retrieving head. P/u 4 5/8" Hurricane bit, sliding sleeve bit sub & 224 jts tbg. SIW SDFN

Daily Cost: \$14,800  
Cum. Cost: \$501,956

Nov 21, 2014 Friday (Day 30)  
AOL @ 7:00 a.m. Est circulation; TIH w/ tbg. Tag @ 7610'; P/u swivel; break circulation. DO CBP @ 7610'. TIH; Tag @ 7840'. CO 80' sand on CBP @ 7920'. CO sand & DO CBP. CO 47' sand on CIBP. Circulate clean. POOH w/ 28 jts tbg. Left well open to tanks. SDFWE

Daily Cost: \$10,150  
Cum. Cost: \$512,106

Nov 22, 2014 Saturday (Day 31)  
SDFWE

Daily Cost: \$1,300  
Cum. Cost: \$513,406

Nov 23, 2014 Sunday  
SDFWE

(Day 32)

Daily Cost: \$1,300  
Cum. Cost: \$514,706

Nov 24, 2014 Monday (Day 33)

AOL @ 7:00 a.m. RIH w/ 28 jts tbg. RU 2 vacuum trucks w/ 2% KCL FW. Circulate well w/ 240 bbls KCL fw. Piped 45 bbls 10 lb brine down tbg to flush out tbg. POOH w/ 28 jts tbg. Pumped 45 bbls 10 lb brine to kill csg. P/u 2 7/8" pruge valve, 2 7/8" MJ, 2 7/8" S.N., Super perf, TAC, rotation pkr, x-over, 2 3/8" gas separator, x-over, 2 7/8" x 2' pup jt, 2 7/8" Mechanical S.N., 222 jts tbg. Set TAC @ 7330.81' kb w/ 18-20k tension. S.N. @ 7281.82'kb. ND BOP; NU WH; SDFN

Daily Cost: \$9,760  
Cum. Cost: \$524,466

Nov 25, 2014 Tuesday (Day 34)

AOL @ 7:00 a.m. Well dead; RD release reverse unit. Change over to run rods. P/u R&R pump(APS), 21k shear tool, 8 - 1.5" C - bars, 95 - 1" kd rods, 123 - 1.25" FG rods, 1 - 18' x 1.25" FG pony rod, 1 - 3' x 1.25" FG pony rod, & 1 - 1.5" x 26' PR. Hang rods on unit. Balanced unit. Well pumped up in 10 strokes. Left unit. Off. Will RD MO PU 11-25-14. SDFN

Daily Cost: \$8,600  
Cum. Cost: \$533,066

Nov 26, 2014 Wednesday (Day 35)

AOL @ 7:00 a.m. NU flowline to WH. RD MO PU to SU 15 #3. Set tbg to side of location. Load up catwalk & racks. Release well to production. Final report.

Daily Cost: \$3,750  
Cum. Cost: \$536,816

Date	Lease	WELL #	BOPD	MCFD	BWPD	Tbg PSI	Csg PSI	Inj Rate	Choke Size	Remarks
11/25/14	Andrews University 41-32	7								No Test
11/26/14	Andrews University 41-32	7								No Test
11/27/14	Andrews University 41-32	7								No Test
11/28/14	Andrews University 41-32	7								Well completed
11/29/14	Andrews University 41-32	7								No test
11/30/14	Andrews University 41-32	7	0	0	262					Onto frac tanks
12/1/14	Andrews University 41-32	7	0	0	425					Frac tanks