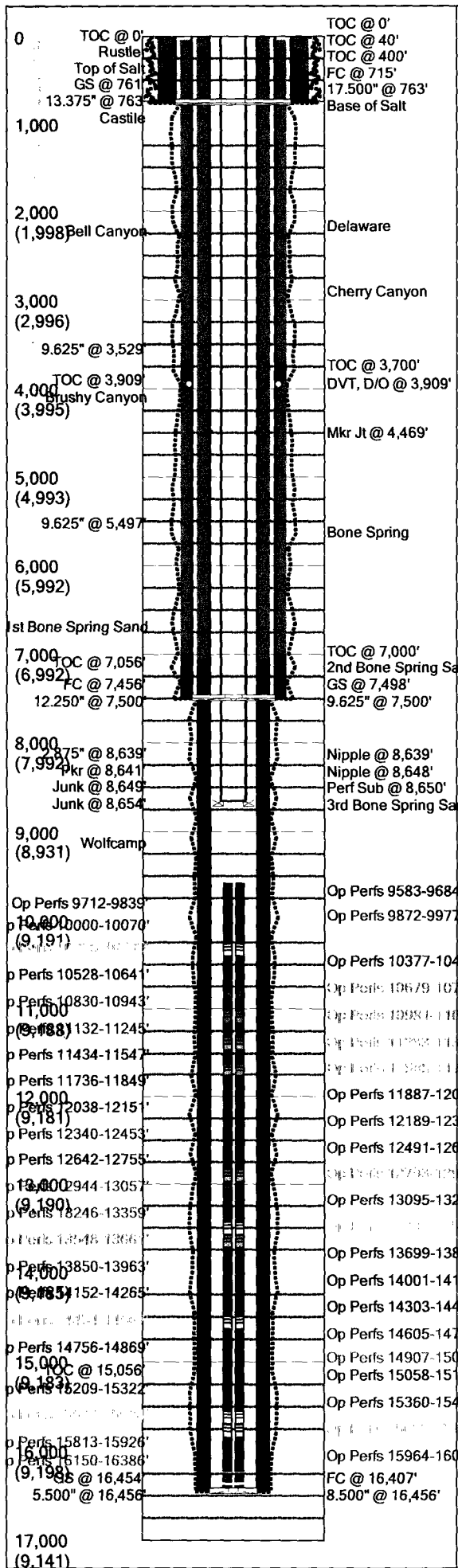




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Field Name		Lease Name		Well No.
Forehand		Forehand Ranch 22 State		8H
County		State	API No.	
Eddy		New Mexico	30-015-43555	
Version	Version Tag			
1	completed			
GL (ft)	KB (ft)	Section	Township/Block	Range/Survey
3,149.0	3,174.0	22	23S	27E
Operator		Well Status	Latitude	Longitude
Caza Operating		Completed	32.289573	-104.179761
Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From
2310	FSL	2080	FWL	SECTION
Prop Num		Spud Date	Comp. Date	
314249		5/1/2017	12/23/2017	
Additional Information				
Other 1	Other 2	Other 3	Other 4	
Prepared By		Updated By		
Steve		Steve		

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
5/3/2017	17.500	0	763	
5/8/2017	12.250	763	7,500	
5/22/2017	8.500	7,500	16,456	

Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
5/3/2017	Surface Casing	13.375	54.50	J55	0	763
5/8/2017	Intermediate Casing	9.625	40.00	J55	0	3,529
5/8/2017	Intermediate Casing	9.625	40.00	HCL8	3,529	5,497
5/8/2017	Intermediate Casing	9.625	47.00	HCL8	5,497	7,500
5/23/2017	Production Casing	5.500	17.00	HCP1	0	16,456
12/21/2017	Tubing	2.875	6.50	L80	0	8,639

C	Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	5/3/2017	335	13.375	0	400	Circ 161sx
	5/3/2017	335	13.375	400	763	
	5/9/2017	1,200	9.625	40	3,700	Temp Survey - TOC @ 40'
	5/9/2017	100	9.625	3,700	3,909	
	5/9/2017	955	9.625	3,909	7,000	
	5/9/2017	455	9.625	7,000	7,500	
	5/24/2017	840	5.500	0	7,056	Circ 160sx
	5/24/2017	1,275	5.500	7,056	15,056	
	5/24/2017	150	5.500	15,056	16,456	

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)
5/3/2017	FC	13.375	0.000	715	0
5/3/2017	GS	13.375	0.000	761	0
5/8/2017	DVT, D/O	9.625	0.000	3,909	0
5/23/2017	Mkr Jt	5.500	0.000	4,469	4,487
5/8/2017	FC	9.625	0.000	7,456	0
5/8/2017	GS	9.625	0.000	7,498	0
12/21/2017	Nipple	2.875	2.310	8,639	0
12/21/2017	Pkr	4.780	2.250	8,641	0
12/21/2017	Nipple	2.875	2.250	8,648	0
12/21/2017	Junk	2.875	2.250	8,649	8,650
12/21/2017	Perf Sub	2.875	0.000	8,650	8,654
12/21/2017	Junk	2.875	2.250	8,654	8,655
5/23/2017	FC	5.500	0.000	16,407	0
5/23/2017	GS	5.500	0.000	16,454	0

C	Date	Perf. Status	Formation	OA Top (MD ft)	OA Bottom (MD ft)	Shots
	12/15/2017	Open	Wolfcamp	9,583	9,684	32
	12/15/2017	Open	Wolfcamp	9,712	9,839	32
	12/15/2017	Open	Wolfcamp	9,872	9,977	32
	12/15/2017	Open	Wolfcamp	10,000	10,070	32
	12/15/2017		Wolfcamp	10,080	10,188	32

Accepted for record
per OGD

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C	Date	Perf. Status	Formation	OA Top (MD ft)	OA Bottom (MD ft)	Shots
	12/14/2017	Open	Wolfcamp	10,226	10,339	32
	12/14/2017	Open	Wolfcamp	10,377	10,490	32
	12/14/2017	Open	Wolfcamp	10,528	10,641	32
	12/14/2017	Open	Wolfcamp	10,679	10,792	32
	12/14/2017	Open	Wolfcamp	10,830	10,943	32
	12/14/2017	Open	Wolfcamp	10,981	11,094	32
	12/14/2017	Open	Wolfcamp	11,132	11,245	32
	12/13/2017	Open	Wolfcamp	11,283	11,396	32
	12/13/2017	Open	Wolfcamp	11,434	11,547	32
	12/13/2017	Open	Wolfcamp	11,585	11,700	32
	12/12/2017	Open	Wolfcamp	11,736	11,849	32
	12/12/2017	Open	Wolfcamp	11,887	12,000	32
	12/10/2017	Open	Wolfcamp	12,038	12,151	32
	12/10/2017	Open	Wolfcamp	12,189	12,302	32
	12/10/2017	Open	Wolfcamp	12,340	12,453	32
	12/10/2017	Open	Wolfcamp	12,491	12,604	32
	12/10/2017	Open	Wolfcamp	12,642	12,755	32
	12/9/2017	Open	Wolfcamp	12,793	12,906	32
	12/9/2017	Open	Wolfcamp	12,944	13,057	32
	12/9/2017	Open	Wolfcamp	13,095	13,208	32
	12/9/2017	Open	Wolfcamp	13,246	13,359	32
	12/9/2017	Open	Wolfcamp	13,397	13,510	32
	12/8/2017	Open	Wolfcamp	13,548	13,661	32
	12/8/2017	Open	Wolfcamp	13,699	13,812	32
	12/8/2017	Open	Wolfcamp	13,850	13,963	32
	12/8/2017	Open	Wolfcamp	14,001	14,114	32
	12/8/2017	Open	Wolfcamp	14,152	14,265	32
	12/7/2017	Open	Wolfcamp	14,303	14,416	32
	12/7/2017	Open	Wolfcamp	14,454	14,567	32
	12/4/2017	Open	Wolfcamp	14,605	14,718	32
	12/4/2017	Open	Wolfcamp	14,756	14,869	32
	12/4/2017	Open	Wolfcamp	14,907	15,020	32
	12/3/2017	Open	Wolfcamp	15,058	15,171	32
	12/3/2017	Open	Wolfcamp	15,209	15,322	32
	12/3/2017	Open	Wolfcamp	15,360	15,473	32
	12/3/2017	Open	Wolfcamp	15,511	15,624	32
	12/2/2017	Open	Wolfcamp	15,662	15,775	32
	12/2/2017	Open	Wolfcamp	15,813	15,926	32
	12/1/2017	Open	Wolfcamp	15,964	16,077	32
	12/1/2017	Open	Wolfcamp	16,150	16,386	18

Formation Tops Summary

Formation	Top (TVD ft)	Comments
Rustler	157	
Top of Salt	452	
Base of Salt	766	
Castile	899	
Delaware	2,139	
Bell Canyon	2,195	
Cherry Canyon	2,876	
Brushy Canyon	4,053	
Bone Spring	5,586	
1st Bone Spring Sand	6,644	
2nd Bone Spring Sand	7,201	
3rd Bone Spring Sand	8,653	
Wolfcamp	8,997	

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Field Name		Lease Name		Well No.	County	State		API No.	
Forehand		Forehand Ranch 22 State		8H	Eddy	New Mexico		30015435550000	
Version	Version Tag				Spud Date		Comp. Date	GL (ft)	KB (ft)
1 completed					5/1/2017		12/23/2017	3,149.0	3,174.0
Section	Township/Block		Range/Survey	Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From	
22	23S		27E	2,310	FSL	2,080	FWL	SECTION	
Operator			Well Status		Latitude		Longitude		Prop Num
Caza Operating			Completed		32.289573		-104.179761		314249
Other 1		Other 2		Other 3			Other 4		
Last Updated		Prepared By			Updated By				
01/03/2018 3:40 PM		Steve			Steve				
Additional Information									

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
5/3/2017	17.500	0	763	
5/8/2017	12.250	763	7,500	
5/22/2017	8.500	7,500	16,456	

Tubular Summary

Date	Description	No. Jts	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)	Comments
5/3/2017	Surface Casing	17	13.375	54.50	J55	0	763	
5/8/2017	Intermediate Casing	90	9.625	40.00	J55	0	3,529	
5/8/2017	Intermediate Casing	45	9.625	40.00	HCL80	3,529	5,497	
5/8/2017	Intermediate Casing	49	9.625	47.00	HCL80	5,497	7,500	
5/23/2017	Production Casing	363	5.500	17.00	HCP110	0	16,456	
12/21/2017	Tubing	264	2.875	6.50	L80	0	8,639	

Casing Cement Summary

C	Date	No. Sx	Yield (ft³/sk)	Vol. (ft³)	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	5/3/2017	335	1.89	632	13.375	0	400	12.9ppg EconoCem HLC Class C + 0.125lbm Poly E Flake + 5% Salt + 2lbm Kol Seal	Circ 161sx
	5/3/2017	335	1.35	452	13.375	400	763	14.8ppg HalCem C + 1% CaCl2 + 0.125lbm Poly E Flake	
	5/9/2017	1,200	2.40	2,878	9.625	40	3,700	12.9ppg EconoCem HLC + 5% Salt	Temp Survey - TOC @40'
	5/9/2017	100	1.33	133	9.625	3,700	3,909	14.8ppg HalCem C	
	5/9/2017	955	2.40	2,290	9.625	3,909	7,000	11.5ppg NeoCem IL + 0.25lbm Poly e Flake + 3lbm Kol Seal	
	5/9/2017	455	1.46	666	9.625	7,000	7,500	13.2ppg NeoCem IT + 0.125lbm Poly E Flake	
	5/24/2017	840	2.79	2,344	5.500	0	7,056	11.5ppg EconoCem H + 0.65% HR-601 + 0.05% SA-1015 + 0.25lbm D-AIR 5000	Circ 160sx
	5/24/2017	1,275	1.46	1,867	5.500	7,056	15,056	13.2ppg NeoCem PT	
	5/24/2017	150	2.16	324	5.500	15,056	16,456	14.5ppg NeoCem AS	

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
5/3/2017	Float Collar	13.375	0.000	715	0		
5/3/2017	Guide Shoe	13.375	0.000	761	0		
5/8/2017	DV tool (drilled out)	9.625	0.000	3,909	0		
5/23/2017	Marker Joint	5.500	0.000	4,469	4,487		
5/8/2017	Float Collar	9.625	0.000	7,456	0		
5/8/2017	Guide Shoe	9.625	0.000	7,498	0		
12/21/2017	Nipple	2.875	2.310	8,639	0		
12/21/2017	Packer	4.780	2.250	8,641	0		
12/21/2017	Nipple	2.875	2.250	8,648	0		
12/21/2017	Junk	2.875	2.250	8,649	8,650	Rupture Disk	
12/21/2017	Perforated Sub	2.875	0.000	8,650	8,654		
12/21/2017	Junk	2.875	2.250	8,654	8,655	Mule shoe collar no blade	
5/23/2017	Float Collar	5.500	0.000	16,407	0		
5/23/2017	Guide Shoe	5.500	0.000	16,454	0		

Perforation Summary

C	Date	Perf. Status	Formation		Comments		
	12/1/2017	Open	Wolfcamp		3,995bbbls 407 bbbls Liberty FR, 28 bbbls HCL-15, 42 bbbls FW, 5 bbbls Rhino NSF, and 3513 bbbls 18# Justice. Pumped 17,160 lbs 40/70 white, 307,180 lbs 20/40 white, and 38,500 lbs 20/40 CRC. AP-6178 psi, MaxP-7167 psi, AR-74 bpm, MaxR-88bpm		
Top (MD ft)		Bottom (MD ft)		SPF	Shots	Phasing (deg)	Interval Comments
16,385		16,386		6	6	0	
16,267		16,268		6	6	0	
16,150		16,151		6	6	0	
C	Date	Perf. Status	Formation		Comments		

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C	Date	Perf. Status	Formation	Comments		
	12/1/2017	Open	Wolfcamp	7,047bbls 397 bbls water, 1338 bbls Liberty FR, 71 bbls HCL-15, 515 bbls FW, 36bbls Rhino NSF, and 4690 bbls 18# Justice. Pumped xxxx lbs 40/70 white, xxxx lbs 20/40 white, and xxxx lbs 20/40 CRC. AP-6893 psi, MaxP-7398 psi AR-70bpm ISIP-3134psi FG-0.77		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	16,075	16,077	8	8	60	
	16,038	16,040	8	8	60	
	16,001	16,003	8	8	60	
	15,964	15,966	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/2/2017	Open	Wolfcamp	5807bbls 293 bbls water, 441 bbls Liberty FR, 19 bbls HCL-15, 90 bbls FW, 18 bbls Rhino NSF, and 4545 bbls 18# Justice. Pumped 17,200 lbs 40/70 white, 307,940 lbs 20/40 white, and 38,260 lbs 20/40 CRC. AP-7088psi, MaxP-7784psi, AR-59bpm, MaxR-72bpm		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	15,924	15,926	8	8	60	
	15,887	15,889	8	8	60	
	15,850	15,852	8	8	60	
	15,813	15,815	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/2/2017	Open	Wolfcamp	4426 clean bbls consisting of 298 bbls treated water, 548 bbls Liberty FR, 36 bbls HCL-15, 100 bbls FW, 18 bbls Rhino NSF, and 3426 bbls 18# Justice. Pumped 17,100 lbs 40/70 white, 307,440 lbs 20/40 white, and 26,020 lbs 20/40 CRC. AP-6852 psi, MaxP-7957		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	15,773	15,775	8	8	60	
	15,736	15,738	8	8	60	
	15,699	15,701	8	8	60	
	15,662	15,664	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/3/2017	Open	Wolfcamp	4407 clean bbls consisting of 300 bbls treated water, 521 bbls Liberty FR, 36 bbls HCL-15, 85 bbls FW, 18 bbls Rhino NSF, and 3448 bbls 18# Justice. Pumped 16,930 lbs 40/70 white, 307,390 lbs 20/40 white, and 38,060 lbs 20/40 CRC. AP-7286 psi, MaxP-7903		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	15,622	15,624	8	8	60	
	15,585	15,587	8	8	60	
	15,548	15,550	8	8	60	
	15,511	15,513	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/3/2017	Open	Wolfcamp	4301 clean bbls consisting of 270 bbls treated water, 495 bbls Liberty FR, 36 bbls HCL-15, 89 bbls FW, 18 bbls Rhino NSF, and 3196 bbls 18# Justice. Pumped 16,930 lbs 40/70 white, 270,040 lbs 20/40 white, and 91,340 lbs 20/40 Cool Set. AP-7668 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	15,471	15,473	8	8	60	
	15,434	15,436	8	8	60	
	15,397	15,399	8	8	60	
	15,360	15,362	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/3/2017	Open	Wolfcamp	4371 clean bbls consisting of 310 bbls treated water, 535 bbls Liberty FR, 36 bbls HCL-15, 91 bbls FW, 18 bbls Rhino NSF, and 3382 bbls 18# Justice. Pumped 15,000 lbs 40/70 white, 310,720 lbs 20/40 white, and 38,150 lbs 20/40 CRC. AP-7748 psi, MaxP-8246		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	15,320	15,322	8	8	60	
	15,283	15,285	8	8	60	
	15,246	15,248	8	8	60	
	15,209	15,211	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/3/2017	Open	Wolfcamp	4344 clean bbls consisting of 270 bbls treated water, 553 bbls Liberty FR, 36 bbls HCL-15, 107 bbls FW, 18 bbls Rhino NSF, and 3360 bbls 18# Justice. Pumped 17,400 lbs 40/70 white, 307,720 lbs 20/40 white, 4,500 lbs 20/40 CRC, & 32,820 lbs 20/40 Cool Set.		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	15,169	15,171	8	8	60	
	15,132	15,134	8	8	60	
	15,095	15,097	8	8	60	
	15,058	15,060	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/4/2017	Open	Wolfcamp	7585 clean bbls consisting of 248 bbls treated water, 1096 bbls Liberty FR, 48 bbls HCL-15, 88 bbls FW, 18 bbls Rhino NSF, and 3730 bbls 18# Justice. Pumped 17,480 lbs 40/70 white, 309,340 lbs 20/40 white, 27,280 lbs 20/40 CRC, & 9,000 lbs 20/40 Cool Set.		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	15,018	15,020	8	8	60	
	14,981	14,983	8	8	60	
	14,944	14,947	8	8	60	
	14,907	14,909	8	8	60	
C	Date	Perf. Status	Formation	Comments		

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C	Date	Perf. Status	Formation	Comments		
	12/4/2017	Open	Wolfcamp	4290 clean bbls consisting of 261 bbls treated water, 544 bbls Liberty FR, 36 bbls HCL-15, 50 bbls FW, 18 bbls Rhino NSF, and 3381 bbls 18# Justice. Pumped 17,380 lbs 40/70 white, 307,970 lbs 20/40 white, 15,000 lbs 20/40 CRC, & 23,820 lbs 20/40 Cool Set.		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	14,830	14,832	8	8	60	
	14,793	14,795	8	8	60	
	14,756	14,758	8	8	60	
	14,867	14,869	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/4/2017	Open	Wolfcamp	3741 clean bbls consisting of 276 bbls treated water, 499 bbls Liberty FR, 36 bbls HCL-15, 211 bbls FW, 18 bbls Rhino NSF, and 2702 bbls 16# Justice. Pumped 20,010 lbs 40/70 white, 217,520 lbs 20/40 white, 0 lbs 20/40 CRC, & 0 lbs 20/40 Cool Set.		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	14,716	14,718	8	8	60	
	14,679	14,681	8	8	60	
	14,642	14,644	8	8	60	
	14,605	14,607	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/7/2017	Open	Wolfcamp	4471 clean bbls consisting of 331 bbls treated water, 527 bbls Liberty FR, 36 bbls HCL-15, 94 bbls FW, 18 bbls Rhino NSF, and 3466 bbls 18# Justice. Pumped 17,200 lbs 40/70 white, 306,900 lbs 20/40 white and 38,130 lbs 20/40 CRC. AP-6842 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	14,565	14,567	8	8	60	
	14,528	14,530	8	8	60	
	14,491	14,493	8	8	60	
	14,454	14,456	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/7/2017	Open	Wolfcamp	4371 clean bbls consisting of 235 bbls treated water, 353 bbls Liberty FR, 36 bbls HCL-15, 113 bbls FW, 18 bbls Rhino NSF, and 3616 bbls 18# Justice. Pumped 23,850 lbs 40/70 white, 298,030 lbs 20/40 white and 39,920 lbs 20/40 CRC. AP-7043 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	14,414	14,416	8	8	60	
	14,377	14,379	8	8	60	
	14,340	14,342	8	8	60	
	14,303	14,305	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/8/2017	Open	Wolfcamp	4194 clean bbls consisting of 235 bbls treated water, 533 bbls Liberty FR, 36 bbls HCL-15, 45 bbls FW, 18 bbls Rhino NSF, and 3616 bbls 18# Justice. Pumped 16,810 lbs 40/70 white, 309,170 lbs 20/40 white and 39,200 lbs 20/40 CRC. AP-6871 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	14,263	14,265	8	8	60	
	14,226	14,228	8	8	60	
	14,189	14,191	8	8	60	
	14,152	14,154	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/8/2017	Open	Wolfcamp	4194 clean bbls consisting of 237 bbls treated water, 567 bbls Liberty FR, 36 bbls HCL-15, 34 bbls FW, 18 bbls Rhino NSF, and 3514 bbls 18# Justice. Pumped 17,010 lbs 40/70 white, 308,150 lbs 20/40 white and 39,760 lbs 20/40 CRC. AP-6947 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	14,112	14,114	8	8	60	
	14,075	14,077	8	8	60	
	14,038	14,040	8	8	60	
	14,001	14,003	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/8/2017	Open	Wolfcamp	4327 clean bbls consisting of 208 bbls treated water, 531 bbls Liberty FR, 36 bbls HCL-15, 93 bbls FW, 18 bbls Rhino NSF, and 3442 bbls 18# Justice. Pumped 16,920 lbs 40/70 white, 306,910 lbs 20/40 white and 40,300 lbs 20/40 CRC. AP-6586 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	13,961	13,963	8	8	60	
	13,924	13,926	8	8	60	
	13,887	13,889	8	8	60	
	13,850	13,852	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/8/2017	Open	Wolfcamp	4387 clean bbls consisting of 276 bbls treated water, 507 bbls Liberty FR, 21 bbls HCL-15, 116 bbls FW, 18 bbls Rhino NSF, and 3449 bbls 18# Justice. Pumped 16,990 lbs 40/70 white, 306,600 lbs 20/40 white and 38,140 lbs 20/40 CRC. AP-6469 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	13,810	13,812	8	8	60	
	13,773	13,775	8	8	60	
	13,736	13,738	8	8	60	
	13,699	13,701	8	8	60	
C	Date	Perf. Status	Formation	Comments		

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C	Date	Perf. Status	Formation		Comments	
	12/8/2017	Open	Wolfcamp		4369 clean bbls consisting of 200 bbls treated water, 538 bbls Liberty FR, 36 bbls HCL-15, 73 bbls FW, 18 bbls Rhino NSF, and 3504 bbls 18# Justice. Pumped 19,950 lbs 40/70 white, 305,850 lbs 20/40 white and 43,160 lbs 20/40 CRC. AP-6525 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	13,659	13,661	8	8	60	
	13,622	13,624	8	8	60	
	13,585	13,587	8	8	60	
	13,548	13,550	8	8	60	
C	Date	Perf. Status	Formation		Comments	
	12/9/2017	Open	Wolfcamp		4113 clean bbls consisting of 200 bbls treated water, 576 bbls Liberty FR, 36 bbls HCL-15, 44 bbls FW, 18 bbls Rhino NSF, and 3440 bbls 18# Justice. Pumped 17,020 lbs 40/70 white, 307,560 lbs 20/40 white and 41,020 lbs 20/40 CRC. AP-6690 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	13,508	13,510	8	8	60	
	13,471	13,473	8	8	60	
	13,434	13,436	8	8	60	
	13,397	13,399	8	8	60	
C	Date	Perf. Status	Formation		Comments	
	12/9/2017	Open	Wolfcamp		4230 clean bbls consisting of 190 bbls treated water, 502 bbls Liberty FR, 36 bbls HCL-15, 31 bbls FW, 18 bbls Rhino NSF, and 3440 bbls 18# Justice. Pumped 17,000 lbs 40/70 white, 307,550 lbs 20/40 white and 40,620 lbs 20/40 CRC. AP-6622 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	13,357	13,359	8	8	60	
	13,320	13,322	8	8	60	
	13,283	13,285	8	8	60	
	13,246	13,248	8	8	60	
C	Date	Perf. Status	Formation		Comments	
	12/9/2017	Open	Wolfcamp		4230 clean bbls consisting of 201 bbls treated water, 485 bbls Liberty FR, 36 bbls HCL-15, 114 bbls FW, 18 bbls Rhino NSF, and 3465 bbls 18# Justice. Pumped 17,470 lbs 40/70 white, 307,380 lbs 20/40 white and 41,140 lbs 20/40 CRC. AP-6426 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	13,206	13,208	8	8	60	
	13,169	13,171	8	8	60	
	13,132	13,134	8	8	60	
	13,095	13,097	8	8	60	
C	Date	Perf. Status	Formation		Comments	
	12/9/2017	Open	Wolfcamp		4257 clean bbls consisting of 164 bbls treated water, 492 bbls Liberty FR, 36 bbls HCL-15, 99 bbls FW, 18 bbls Rhino NSF, and 3448 bbls 18# Justice. Pumped 17,050 lbs 40/70 white, 306,140 lbs 20/40 white and 39,520 lbs 20/40 CRC. AP-6648 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	13,055	13,057	8	8	60	
	13,018	13,020	8	8	60	
	12,981	12,983	8	8	60	
	12,944	12,946	8	8	60	
C	Date	Perf. Status	Formation		Comments	
	12/9/2017	Open	Wolfcamp		3448 clean bbls consisting of 152 bbls treated water, 379 bbls Liberty FR, 36 bbls HCL-15, 108 bbls FW, 18 bbls Rhino NSF, and 3448 bbls 18# Justice. Pumped 17,030 lbs 40/70 white, 307,350 lbs 20/40 white and 41,560 lbs 20/40 CRC. AP-6653 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	12,904	12,906	8	8	60	
	12,867	12,869	8	8	60	
	12,830	12,832	8	8	60	
	12,793	12,795	8	8	60	
C	Date	Perf. Status	Formation		Comments	
	12/10/2017	Open	Wolfcamp		4030 clean bbls consisting of 152 bbls treated water, 420 bbls Liberty FR, 36 bbls HCL-15, 98 bbls FW, 18 bbls Rhino NSF, and 3459 bbls 18# Justice. Pumped 16,970 lbs 40/70 white, 309,930 lbs 20/40 white and 40,050 lbs 20/40 CRC. AP-6581 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	12,753	12,755	8	8	60	
	12,716	12,718	8	8	60	
	12,679	12,681	8	8	60	
	12,642	12,644	8	8	60	
C	Date	Perf. Status	Formation		Comments	
	12/10/2017	Open	Wolfcamp		4180 clean bbls consisting of 175 bbls treated water, 473 bbls Liberty FR, 36 bbls HCL-15, 41 bbls FW, 18 bbls Rhino NSF, and 3437 bbls 18# Justice. Pumped 16,980 lbs 40/70 white, 307,450 lbs 20/40 white and 40,080 lbs 20/40 CRC. AP-6753 psi	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	12,602	12,604	8	8	60	
	12,565	12,567	8	8	60	
	12,528	12,530	8	8	60	
	12,491	12,493	8	8	60	
C	Date	Perf. Status	Formation		Comments	

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C	Date	Perf. Status	Formation	Comments		
	12/10/2017	Open	Wolfcamp	4253 clean bbls consisting of 145 bbls treated water, 477 bbls Liberty FR, 36 bbls HCL-15, 116 bbls FW, 18 bbls Rhino NSF, and 3461 bbls 18# Justice. Pumped 20,030 lbs 40/70 white, 307,940 lbs 20/40 white and 40,080 lbs 20/40 CRC. AP-6605 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	12,451	12,453	8	8	60	
	12,414	12,416	8	8	60	
	12,377	12,379	8	8	60	
	12,340	12,342	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/10/2017	Open	Wolfcamp	4261 clean bbls consisting of 135 bbls treated water, 470 bbls Liberty FR, 36 bbls HCL-15, 113 bbls FW, 18 bbls Rhino NSF, and 3489 bbls 18# Justice. Pumped 17,020 lbs 40/70 white, 307,360 lbs 20/40 white and 39,380 lbs 20/40 CRC. AP-6728 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	12,300	12,302	8	8	60	
	12,263	12,265	8	8	60	
	12,226	12,228	8	8	60	
	12,189	12,191	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/10/2017	Open	Wolfcamp	1288 clean bbls consisting of 121 bbls treated water, 752 bbls Liberty FR, 30 bbls HCL-15, 119 bbls FW, 18 bbls Rhino NSF, and 248 bbls 18# Justice. Pumped 3,000 lbs 40/70 white, 0 lbs 20/40 white and 0 lbs 20/40 CRC. AP-7172 psi, MaxP-8843 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	12,149	12,151	8	8	60	
	12,112	12,114	8	8	60	
	12,075	12,077	8	8	60	
	12,038	12,040	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/12/2017	Open	Wolfcamp	5550 clean bbls consisting of 241 bbls treated water, 456 bbls Liberty FR, 36 bbls HCL-15, 109 bbls FW, 18 bbls Rhino NSF, and 4690 bbls 18# Justice. Pumped 20,210 lbs 40/70 white, 310,820 lbs 20/40 white and 39,960 lbs 20/40 CRC. AP-6204 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,998	12,000	8	8	60	
	11,961	11,963	8	8	60	
	11,921	11,923	8	8	60	
	11,887	11,889	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/12/2017	Open	Wolfcamp	4261 clean bbls consisting of 124 bbls treated water, 805 bbls Liberty FR, 36 bbls HCL-15, 91 bbls FW, 18 bbls Rhino NSF, and 3187 bbls 18# Justice. Pumped 16,790 lbs 40/70 white, 303,350 lbs 20/40 white and 39,560 lbs 20/40 CRC. AP-6394 psi		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,847	11,849	8	8	60	
	11,810	11,810	8	8	60	
	11,773	11,775	8	8	60	
	11,736	11,738	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/13/2017	Open	Wolfcamp	3970 clean bbls consisting of 135 bbls treated water, 419 bbls Liberty FR, 36 bbls HCL-15, 31 bbls FW, 18 bbls Rhino NSF, and 3331 bbls 18# Justice. Pumped 17,150 lbs 40/70 white, 310,060 lbs 20/40 white and 40,630 lbs 20/40 CRC. AP-6428 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,698	11,700	8	8	60	
	11,659	11,661	8	8	60	
	11,622	11,624	8	8	60	
	11,585	11,587	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/13/2017	Open	Wolfcamp	4153 clean bbls consisting of 106 bbls treated water, 508 bbls Liberty FR, 36 bbls HCL-15, 100 bbls FW, 18 bbls Rhino NSF, and 3386 bbls 18# Justice. Pumped 17,010 lbs 40/70 white, 307,490 lbs 20/40 white and 39,240 lbs 20/40 CRC. AP-6470 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,545	11,547	8	8	60	
	11,508	11,510	8	8	60	
	11,471	11,473	8	8	60	
	11,434	11,436	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/13/2017	Open	Wolfcamp	3812 clean bbls consisting of 96 bbls treated water, 408 bbls Liberty FR, 36 bbls HCL-15, 36 bbls FW, 18 bbls Rhino NSF, and 3218 bbls 18# Justice. Pumped 17,260 lbs 40/70 white, 306,780 lbs 20/40 white and 28,440 lbs 20/40 CRC. AP-6511 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,394	11,396	8	8	60	
	11,357	11,359	8	8	60	
	11,320	11,322	8	8	60	
	11,283	11,285	8	8	60	
C	Date	Perf. Status	Formation	Comments		

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C	Date	Perf. Status	Formation	Comments		
	12/14/2017	Open	Wolfcamp	3970 clean bbls consisting of 110 bbls treated water, 364 bbls Liberty FR, 36 bbls HCL-15, 56 bbls FW, 18 bbls Rhino NSF, and 3386 bbls 18# Justice. Pumped 23,230 lbs 40/70 white, 307,380 lbs 20/40 white and 41,770 lbs 20/40 CRC. AP-5939 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,243	11,245	8	8	60	
	11,206	11,208	8	8	60	
	11,169	11,171	8	8	60	
	11,132	11,134	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/14/2017	Open	Wolfcamp	3956 clean bbls consisting of 86 bbls treated water, 393 bbls Liberty FR, 36 bbls HCL-15, 20 bbls FW, 18 bbls Rhino NSF, and 3403 bbls 18# Justice. Pumped 17,090 lbs 40/70 white, 303,390 lbs 20/40 white and 40,610 lbs 20/40 CRC. AP-5966 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	11,092	11,094	8	8	60	
	11,055	11,057	8	8	60	
	11,018	11,020	8	8	60	
	10,981	10,983	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/14/2017	Open	Wolfcamp	3930 clean bbls consisting of 86 bbls treated water, 457 bbls Liberty FR, 36 bbls HCL-15, 20 bbls FW, 18 bbls Rhino NSF, and 3303 bbls 18# Justice. Pumped 16,260 lbs 40/70 white, 307,110 lbs 20/40 white and 37,840 lbs 20/40 CRC. AP-6049 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,941	10,943	8	8	60	
	10,904	10,906	8	8	60	
	10,867	10,869	8	8	60	
	10,830	10,832	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/14/2017	Open	Wolfcamp	3930 clean bbls consisting of 66 bbls treated water, 516 bbls Liberty FR, 36 bbls HCL-15, 101 bbls FW, 18 bbls Rhino NSF, and 3384 bbls 18# Justice. Pumped 17,030 lbs 40/70 white, 307,350 lbs 20/40 white and 31,160 lbs 20/40 CRC. AP-6041 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,790	10,792	8	8	60	
	10,753	10,755	8	8	60	
	10,716	10,718	8	8	60	
	10,679	10,681	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/14/2017	Open	Wolfcamp	3930 clean bbls consisting of 70 bbls treated water, 333 bbls Liberty FR, 36 bbls HCL-15, 101 bbls FW, 18 bbls Rhino NSF, and 4259 bbls 18# Justice. Pumped 16,915 lbs 40/70 white, 307,390 lbs 20/40 white and 28,890 lbs 20/40 CRC. AP-6535 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,639	10,641	8	8	60	
	10,602	10,604	8	8	60	
	10,565	10,567	8	8	60	
	10,528	10,530	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/14/2017	Open	Wolfcamp	2434 clean bbls consisting of 55 bbls treated water, 549 bbls Liberty FR, 36 bbls HCL-15, 104 bbls FW, 18 bbls Rhino NSF, and 1671 bbls 18# Justice. Pumped 19,000 lbs 40/70 white, 67,370 lbs 20/40 white and 0 lbs 20/40 CRC. AP-6876 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,488	10,490	8	8	60	
	10,451	10,453	8	8	60	
	10,414	10,416	8	8	60	
	10,377	10,379	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/14/2017	Open	Wolfcamp	5097 clean bbls consisting of 65 bbls treated water, 2581 bbls Liberty FR, 48 bbls HCL-15, 91 bbls FW, 18 bbls Rhino NSF, and 2295 bbls 18# Justice. Pumped 17,140 lbs 40/70 white, 34,000 lbs 20/40 white and 0 lbs 20/40 CRC. AP-7219 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,337	10,339	8	8	60	
	10,300	10,302	8	8	60	
	10,263	10,265	8	8	60	
	10,226	10,228	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/15/2017		Wolfcamp	After pumping croslink pad, pump 1,700 lbs of 3k 100 mesh sand scour & pressure climbs re-shoot 41st set of perfs		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,186	10,188	8	8	60	
	10,153	10,155	8	8	60	
	10,112	10,114	8	8	60	
	10,080	10,082	8	8	60	
C	Date	Perf. Status	Formation	Comments		

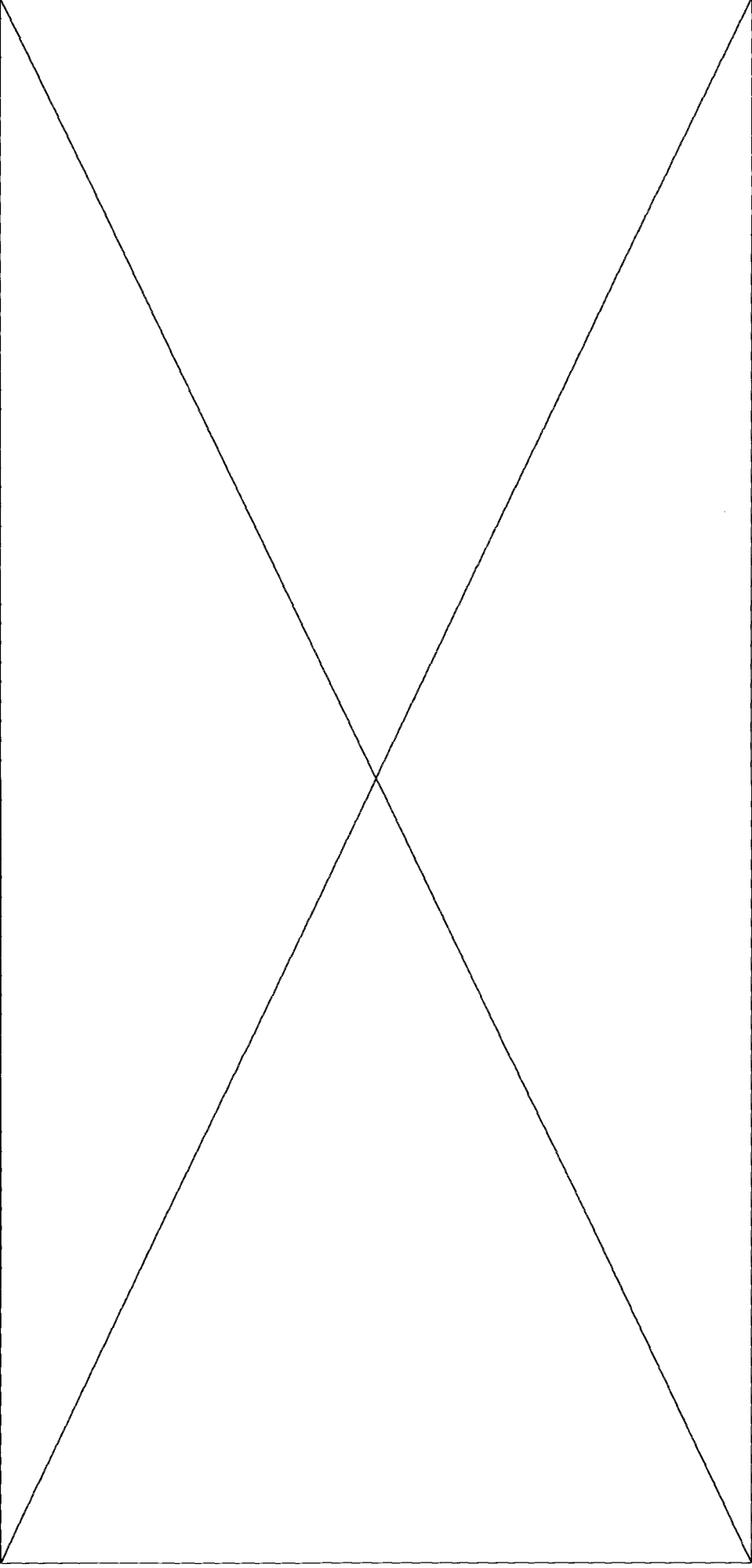
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C	Date	Perf. Status	Formation	Comments		
	12/15/2017	Open	Wolfcamp	2517 clean bbls consisting of 272 bbls treated water, 0 bbls Liberty FR, 60 bbls HCL-15, 70 bbls FW, 18 bbls Rhino NSF, and 1238 bbls 18# Justice. Pumped 330 lbs 100 mesh AP- 7933 psi, MaxP -8341 psi, AR-40bpm, MaxR- 72 bpm. ISIP- 6480 psi, FG- 1.1		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	10,068	10,070	8	8	60	
	10,050	10,052	8	8	60	
	10,030	10,032	8	8	60	
	10,000	10,002	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/15/2017	Open	Wolfcamp	1629 clean bbls consisting of 70 bbls treated water, 0 bbls Liberty FR, 24 bbls HCL-15, 42 bbls FW, 18 bbls Rhino NSF, and Pumped 1000 lbs 40/70 white, 1000 lbs 100 mesh AP-7811 psi, MaxP-8324 psi, AR- 39 bpm, MaxR- 40 bpm, ISIP- 5756 psi, FG- 1.1		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	9,975	9,977	8	8	60	
	9,940	9,942	8	8	60	
	9,902	9,904	8	8	60	
	9,872	9,874	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/15/2017	Open	Wolfcamp	3986 clean bbls consisting of 76 bbls treated water, 0 bbls Liberty FR, 21 bbls HCL-15, 80 bbls FW, 24 bbls Rhino NSF, and Pumped 3365 bbls Justice 18#, 17,140 lbs 40/70 white 296,790 lbs 20/40 white, 38,560 20/40 cool set AP-6259 psi, MaxP-7601 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	9,837	9,839	8	8	60	
	9,801	9,803	8	8	60	
	9,763	9,765	8	8	60	
	9,712	9,714	8	8	60	
C	Date	Perf. Status	Formation	Comments		
	12/15/2017	Open	Wolfcamp	4890 clean bbls consisting of 76 bbls treated water, 0 bbls Liberty FR, 30 bbls HCL-15, 271 bbls FW, 63 bbls Rhino NSF, and Pumped 4150 bbls Justice 18#, 24,610 lbs 40/70 white 352,400 lbs 20/40 white, 54,850 20/40 cool set AP-5926 psi, MaxP-8066 psi,		
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	9,682	9,684	8	8	60	
	9,648	9,650	8	8	60	
	9,618	9,620	8	8	60	
	9,583	9,585	8	8	60	

Formation Top Summary

Formation Name	Top(TVD ft)	Comments
Rustler	157	
Top of Salt	452	
Base of Salt	766	
Castile	899	
Delaware	2,139	
Bell Canyon	2,195	
Cherry Canyon	2,876	
Brushy Canyon	4,053	
Bone Spring	5,586	
1st Bone Spring Sand	6,644	
2nd Bone Spring Sand	7,201	
3rd Bone Spring Sand	8,653	
Wolfcamp	8,997	

Field Name	Lease Name	Well No.	County	State	API No.	Version	Version Tag	Spud Date	Comp. Date	G.L. (ft)	K.B. (ft)
Forehand	Forehand Ranch 22 State	8H	Eddy	New Mexico	30015435550000	1	completed	5/1/2017	12/23/2017	3,149.0	3,174.0
Sec.	Township/Block	Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	EW Line	Footage From	Latitude	Longitude	PropNum	Well Status	Operator
22	23S	2310	FSL	2080	FWL		32.289573	-104.179761	314249	Completed	Caza Operating
Last Updated	Prepared By	Additional Information									
1/3/2018 3:40:17 PM	Steve	Sieve									



Field Name		Lease Name		Well No.	API No.		Version	Version Tag		
Forehand		Forehand Ranch 22 State		8H	30015435550000		1	completed		
Section	Township/Block		Range/Survey		County		State		GL (ft)	KB (ft)
22	23S		27E		Eddy		New Mexico		3,149.0	3,174.0
Target N (-S) (ft)		Target E (-W) (ft)		Latitude		Longitude		Operator		Well Status
-7313.817		-17.40766		32.289573		-104.179761		Caza Operating		Completed
Additional Information										

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
299.0	0.7	70.8	299.0	-0.6	0.6	1.6	0.22
452.0	1.2	63.4	452.0	-1.6	1.5	3.8	0.35
573.0	1.9	64.2	572.9	-3.0	3.0	6.8	0.61
707.0	2.0	60.3	706.9	-5.1	5.1	10.8	0.11
805.0	1.4	65.5	804.8	-6.5	6.5	13.4	0.58
988.0	2.4	17.8	987.7	-11.1	11.1	16.7	0.97
1,177.0	3.3	0.1	1,176.5	-20.3	20.3	17.9	0.66
1,366.0	3.4	15.7	1,365.2	-31.2	31.2	19.4	0.49
1,556.0	3.1	24.3	1,554.8	-41.4	41.4	23.1	0.31
1,746.0	4.1	34.7	1,744.5	-51.7	51.7	29.1	0.61
1,935.0	4.2	29.9	1,933.0	-63.3	63.2	36.4	0.20
2,126.0	4.3	342.8	2,123.5	-76.3	76.2	37.7	1.79
2,315.0	3.5	336.6	2,312.1	-88.5	88.4	33.3	0.48
2,504.0	3.2	336.0	2,500.7	-98.6	98.5	28.9	0.19
2,694.0	3.0	337.9	2,690.5	-107.9	107.9	24.9	0.13
2,884.0	2.9	331.8	2,880.2	-116.6	116.6	20.8	0.17
3,073.0	2.3	333.8	3,069.0	-124.1	124.1	16.9	0.32
3,262.0	3.2	339.4	3,257.8	-132.4	132.4	13.4	0.51
3,452.0	3.5	340.1	3,447.5	-142.8	142.8	9.6	0.15
3,641.0	3.4	346.2	3,636.1	-153.6	153.6	6.3	0.20
3,830.0	3.4	343.8	3,824.8	-164.4	164.4	3.4	0.08
4,020.0	2.9	344.9	4,014.5	-174.3	174.3	0.6	0.27
4,210.0	2.4	340.6	4,204.3	-182.7	182.7	-2.0	0.25
4,399.0	2.8	348.7	4,393.1	-190.9	190.9	-4.2	0.27
4,588.0	2.6	345.2	4,581.9	-199.5	199.5	-6.2	0.15
4,778.0	3.1	0.5	4,771.7	-208.8	208.8	-7.2	0.50
4,967.0	3.3	4.7	4,960.4	-219.4	219.4	-6.7	0.17
5,157.0	3.0	4.0	5,150.1	-229.8	229.9	-5.9	0.19
5,347.0	2.5	7.3	5,339.9	-238.8	238.8	-5.0	0.29
5,537.0	3.0	348.4	5,529.7	-247.8	247.8	-5.5	0.56
5,727.0	2.7	343.9	5,719.4	-257.1	257.1	-7.8	0.20
5,917.0	2.6	335.6	5,909.2	-265.4	265.4	-10.8	0.21
6,106.0	1.7	327.2	6,098.1	-271.6	271.7	-14.1	0.52
6,295.0	1.5	333.7	6,287.0	-276.1	276.2	-16.7	0.14
6,483.0	1.4	336.4	6,475.0	-280.5	280.5	-18.7	0.04
6,673.0	1.1	337.3	6,664.9	-284.4	284.4	-20.4	0.16
6,853.0	1.1	338.1	6,844.9	-287.6	287.7	-21.7	0.01
7,043.0	1.0	16.1	7,034.9	-291.0	291.0	-22.0	0.37
7,234.0	0.7	308.0	7,225.8	-293.3	293.4	-22.4	0.53
7,423.0	0.8	304.1	7,414.8	-294.8	294.8	-24.4	0.05
7,605.0	1.1	284.7	7,596.8	-295.9	296.0	-27.2	0.26
7,794.0	2.2	265.9	7,785.7	-296.1	296.2	-32.5	0.60
7,983.0	1.6	149.7	7,974.7	-293.6	293.7	-34.7	1.69
8,173.0	0.7	132.9	8,164.6	-290.6	290.6	-32.6	0.52
8,362.0	0.5	126.0	8,353.6	-289.4	289.4	-31.1	0.10
8,394.0	0.2	210.3	8,385.6	-289.3	289.3	-31.0	1.53
8,504.0	6.8	187.6	8,495.3	-282.6	282.7	-32.0	6.07
8,552.0	8.7	188.1	8,542.9	-276.2	276.3	-32.9	3.94
8,599.0	14.3	186.2	8,588.9	-266.9	267.0	-34.0	11.94
8,647.0	18.8	186.0	8,634.9	-253.3	253.4	-35.4	9.29
8,694.0	23.0	181.6	8,678.9	-236.6	236.7	-36.5	9.54
8,742.0	25.5	180.4	8,722.6	-216.9	217.0	-36.8	5.26
8,789.0	30.3	179.5	8,764.2	-195.0	195.1	-36.8	10.25
8,837.0	33.2	176.9	8,805.0	-169.8	169.9	-35.9	6.69
8,884.0	36.7	175.7	8,843.5	-142.9	143.0	-34.2	7.73

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
8,932.0	40.3	178.0	8,881.1	-113.1	113.2	-32.6	7.96
8,979.0	43.7	178.6	8,916.0	-81.7	81.7	-31.6	7.42
9,026.0	45.9	178.3	8,949.3	-48.6	48.6	-30.8	4.64
9,071.0	48.9	176.9	8,979.8	-15.5	15.5	-29.4	6.92
9,121.0	52.8	176.2	9,011.4	23.2	-23.1	-27.1	7.89
9,168.0	56.4	176.3	9,038.6	61.4	-61.3	-24.6	7.64
9,216.0	59.6	176.3	9,064.1	102.0	-101.9	-21.9	6.81
9,263.0	62.9	177.1	9,086.7	143.1	-143.1	-19.5	7.21
9,311.0	66.4	175.1	9,107.2	186.4	-186.4	-16.6	8.21
9,358.0	69.1	175.9	9,125.0	229.8	-229.7	-13.2	5.97
9,407.0	69.7	175.3	9,142.2	275.5	-275.5	-9.6	1.66
9,454.0	73.3	176.9	9,157.1	320.0	-319.9	-6.6	8.34
9,501.0	74.1	178.2	9,170.3	365.0	-365.0	-4.7	3.00
9,548.0	78.0	179.6	9,181.6	410.6	-410.6	-3.8	8.84
9,596.0	82.9	180.1	9,189.6	457.9	-457.9	-3.7	10.28
9,666.0	89.6	184.1	9,194.1	527.7	-527.7	-6.2	11.12
9,787.0	90.4	184.5	9,194.0	648.4	-648.3	-15.3	0.78
9,882.0	91.2	184.6	9,192.7	743.1	-743.0	-22.8	0.78
9,977.0	90.5	184.0	9,191.3	837.8	-837.7	-29.9	0.95
10,072.0	90.0	182.4	9,190.9	932.7	-932.6	-35.2	1.82
10,167.0	90.3	181.8	9,190.7	1,027.6	-1,027.5	-38.6	0.72
10,261.0	89.9	180.7	9,190.5	1,121.6	-1,121.5	-40.7	1.26
10,356.0	89.3	179.2	9,191.1	1,216.6	-1,216.5	-40.5	1.71
10,451.0	88.4	177.7	9,193.0	1,311.5	-1,311.4	-37.9	1.80
10,545.0	89.8	178.2	9,194.5	1,405.5	-1,405.4	-34.6	1.52
10,639.0	90.8	178.1	9,194.0	1,499.4	-1,499.3	-31.5	1.12
10,734.0	90.8	178.4	9,192.6	1,594.3	-1,594.3	-28.6	0.34
10,829.0	90.8	178.9	9,191.3	1,689.3	-1,689.2	-26.4	0.46
10,924.0	91.2	178.3	9,189.6	1,784.2	-1,784.2	-24.0	0.70
11,019.0	91.4	178.3	9,187.4	1,879.2	-1,879.1	-21.2	0.18
11,113.0	91.0	177.5	9,185.4	1,973.1	-1,973.0	-17.8	0.93
11,219.0	90.2	179.2	9,184.3	2,079.0	-2,079.0	-14.8	1.74
11,313.0	90.5	180.3	9,183.6	2,173.0	-2,173.0	-14.3	1.18
11,408.0	90.6	180.7	9,182.6	2,268.0	-2,268.0	-15.1	0.45
11,504.0	90.2	181.1	9,181.9	2,364.0	-2,364.0	-16.6	0.60
11,599.0	90.2	180.9	9,181.6	2,459.0	-2,458.9	-18.2	0.16
11,694.0	90.5	180.7	9,181.0	2,554.0	-2,553.9	-19.5	0.35
11,789.0	90.9	181.2	9,179.8	2,649.0	-2,648.9	-21.1	0.65
11,883.0	89.6	181.1	9,179.4	2,742.9	-2,742.9	-22.9	1.33
11,978.0	89.3	181.1	9,180.3	2,837.9	-2,837.9	-24.7	0.36
12,073.0	89.2	180.0	9,181.6	2,932.9	-2,932.9	-25.5	1.17
12,167.0	89.0	179.2	9,183.1	3,026.9	-3,026.8	-24.9	0.88
12,262.0	89.0	179.4	9,184.8	3,121.9	-3,121.8	-23.7	0.21
12,357.0	89.1	178.8	9,186.3	3,216.8	-3,216.8	-22.1	0.62
12,453.0	89.7	179.2	9,187.3	3,312.8	-3,312.8	-20.4	0.68
12,547.0	89.2	178.5	9,188.3	3,406.8	-3,406.7	-18.5	0.90
12,641.0	89.9	180.0	9,189.1	3,500.8	-3,500.7	-17.2	1.76
12,736.0	88.8	178.8	9,190.2	3,595.7	-3,595.7	-16.3	1.67
12,831.0	88.7	179.3	9,192.3	3,690.7	-3,690.7	-14.7	0.43
12,926.0	91.4	179.2	9,192.3	3,785.7	-3,785.7	-13.4	2.80
13,020.0	92.5	180.0	9,189.1	3,879.6	-3,879.6	-12.7	1.42
13,114.0	91.2	179.2	9,186.0	3,973.6	-3,973.5	-12.0	1.61
13,210.0	91.0	178.9	9,184.2	4,069.5	-4,069.5	-10.4	0.30
13,305.0	91.0	179.5	9,182.5	4,164.5	-4,164.5	-9.1	0.65
13,400.0	88.8	180.7	9,182.6	4,259.5	-4,259.5	-9.3	2.67
13,495.0	88.1	179.7	9,185.3	4,354.5	-4,354.4	-9.7	1.26
13,590.0	89.2	179.9	9,187.6	4,449.4	-4,449.4	-9.3	1.14
13,685.0	89.1	180.1	9,189.0	4,544.4	-4,544.4	-9.3	0.23
13,780.0	90.8	181.2	9,189.1	4,639.4	-4,639.4	-10.3	2.10
13,875.0	91.1	181.1	9,187.5	4,734.4	-4,734.4	-12.2	0.35
13,970.0	90.9	181.0	9,185.8	4,829.4	-4,829.3	-13.9	0.21
14,064.0	91.4	180.5	9,183.9	4,923.3	-4,923.3	-15.1	0.70
14,159.0	89.9	181.3	9,182.8	5,018.3	-5,018.3	-16.6	1.81
14,254.0	90.9	181.0	9,182.1	5,113.3	-5,113.3	-18.5	1.13
14,348.0	90.1	181.9	9,181.2	5,207.3	-5,207.2	-21.0	1.33
14,443.0	89.2	182.2	9,181.8	5,302.2	-5,302.2	-24.3	0.99
14,538.0	89.9	182.2	9,182.6	5,397.1	-5,397.1	-27.9	0.75

Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
14,633.0	89.8	181.7	9,182.8	5,492.1	-5,492.0	-31.2	0.56
14,728.0	90.0	181.7	9,182.9	5,587.1	-5,587.0	-33.9	0.18
14,823.0	90.2	181.5	9,182.7	5,682.0	-5,682.0	-36.6	0.34
14,918.0	90.3	181.4	9,182.3	5,777.0	-5,776.9	-39.0	0.13
15,013.0	88.7	181.0	9,183.1	5,872.0	-5,871.9	-41.0	1.82
15,108.0	88.5	180.8	9,185.5	5,966.9	-5,966.9	-42.4	0.31
15,203.0	87.8	180.2	9,188.6	6,061.9	-6,061.8	-43.2	0.95
15,298.0	89.2	179.0	9,191.1	6,156.8	-6,156.8	-42.6	2.01
15,394.0	89.1	179.2	9,192.5	6,252.8	-6,252.7	-41.1	0.21
15,488.0	89.2	179.3	9,193.9	6,346.8	-6,346.7	-39.9	0.19
15,583.0	89.0	179.4	9,195.4	6,441.8	-6,441.7	-38.8	0.18
15,678.0	89.1	179.6	9,196.9	6,536.8	-6,536.7	-38.0	0.16
15,772.0	89.0	178.3	9,198.5	6,630.7	-6,630.7	-36.2	1.33
15,867.0	90.4	177.9	9,199.0	6,725.7	-6,725.6	-33.1	1.57
15,962.0	90.3	177.0	9,198.4	6,820.6	-6,820.5	-28.9	0.94
16,057.0	90.4	177.3	9,197.8	6,915.4	-6,915.4	-24.2	0.27
16,152.0	91.4	178.6	9,196.3	7,010.3	-7,010.3	-20.8	1.71
16,248.0	92.6	179.4	9,193.0	7,106.3	-7,106.2	-19.0	1.53
16,342.0	93.4	180.1	9,188.0	7,200.1	-7,200.1	-18.6	1.20
16,397.0	94.1	179.2	9,184.4	7,255.0	-7,255.0	-18.3	2.14
16,456.0	94.1	179.2	9,180.2	7,313.8	-7,313.8	-17.4	0.00