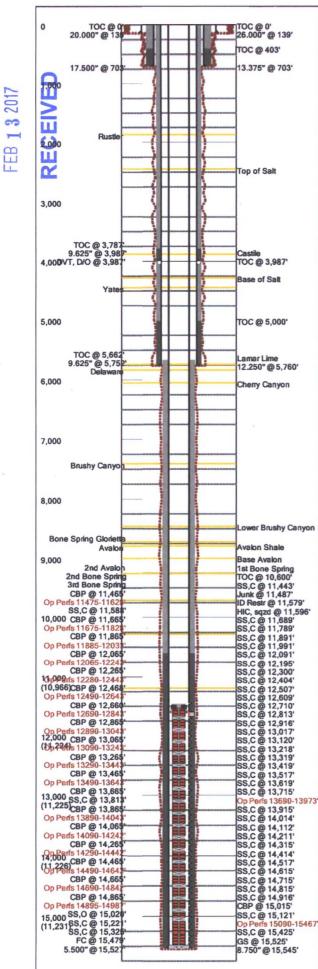


HOBBS OCD



Last Updated: 5/26/2016 06:24 AM

Lennox)					-				II No.
County					JZ S	ate	_	AD		
Lea			New	viexico)			3002	4127	00000
Version		-			_				_	
01 (4)		Lennox 32 State 4H State API No. New Mexico 30025412700000 ersion Tag 30025412700000 completed ft) Section Township/Block Range/Survey 3,476.0 32 22S 35E Well Status Latitude Longitude s, Inc Completed								
GL (ft)	KB (ft)		tion		snip	BIOC	ĸ	-	e/Sur	vey
3,456.0	3,4/6	.0 32	1144 - 11			11		35E		
Operator	d One las				\$	Lat	itude		Long	itude
Caza Oil an					1===				_	
Dist, N/S (f		ne D	ist, E/					-	From	1
-	30 FSL									
Prop Num				1	Spuc				mp. D	
						8	/16/20	014		5/19/2016
Additional	Informati	on								
OGRID	N	lell Typ	e				e and			
249099		orizont			Num	ber				
249099		onzona								ke, Done
Prepared E	3y	Upo	dated	By			Last		-	
Steve Morri	s	Ste	ve Mo	rris				5/2	6/201	6 6:24 AN
Hole Summ	nary									
Date	O.D. (in)	Tor		Bottor	n		C	omme	nts	
			ft)	(MD ft	t)					
	26.000		-							
	17.500									
	12.250									
	8.750	5,	760	15,5	545					
Tubular Su	mmary					_				
Date	Dese	ription	1				Grad			
	0.1							(MD		
			~						-	
			- 1		-			-	-	
			-							
	Intermed	liate Ca	sing	9.62	25	40.00		- 3	3,987	5,75
	Draduat	ion Cor	line	6.60		20.00		-	-	45.50
	Froduct	IOII Cas	Bund	5.50	"	20.00			9	15,52
Casing Cer	ment Sum	mary			-			-		
C Date	No.		g.	To	p I	Botte	m	C	omme	ents
	Sx	O.D.	(in)	(MD	ft)	(MD	ft)			
				-	-					
					-					
	1,100		9.625		0			12.6ppg		
	100		9.625		787			14.8ppg		
	310		9.625	3,	987	5	000	12.6ppg		
	250						-			
			9.625		,000	5,		14.8ppg		
	1,095		5.500	5,	,000 ,662	5, 10,	600	14.8ppg 12.6ppg		
	1,095			5,	,000	5, 10,	600 ⁻			
Tools/Prob	1,095		5.500	5,	,000 ,662	5, 10,	600	12.6ppg		
Tools/Prob Date	1,095 720 lems Sun		5.500	0 5, 0 10, 0.D.	,000 ,662 ,600	5, 10, 15,	600 ⁻	12.6ppg 15ppg Top		Bottom
	1,095 720 lems Sun Tool	nmary Type	5.500	0 5, 0 10, 0.D. (in)	,000 ,662 ,600	5, 10, 15, I.D. (in)	600 · 527 ·	12.6ppg 15ppg Top MD ft)		Bottom (MD ft)
	1,095 720 Iems Sun Tool DVT	mary Type	5.500	0 5, 0 10, 0.D. (in) 9.62	,000 ,662 ,600	5, 10, 15, (in) 0.000	600 · 527 ·	12.6ppg 15ppg Top MD ft) 3,9	87	(MD ft)
	1,095 720 Iems Sun Tool DVT St	Type , D/O S,C	5.500	0.D. 0.D. (in) 9.62 5.50	,000 ,662 ,600 5	5, 10, 15, (in) 0,000	600 · 527 ·	12.6ppg 15ppg Top MD ft) 3,9 11,4	87	(MD ft)
	1,095 720 Iems Sun Tool DVT SS C	Type 7, D/O 5,C BP	5.500	0 5, 0 10, 0 10, (in) 9.62 5.50 3.50	000 662 600 5 0	5, 10, 15, (in) 0.000 0.000	600 · 527 · ((12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4	87 43 65	(MD ft) (11,456
	1,095 720 Iems Sun Tool DVT SS C Ju	mary Type , D/O S,C BP unk	5.500	0 5, 0 10, 0 10, (in) 9,62 5,50 3,50 4,00	000 662 600 5 0 0	5, 10, 15, (in) 0.000 0.000 1.500	600 · 527 · ((12.6ppg 15ppg MD ft) 3,9 11,4 11,4 11,4	87 43 65 87	(MD ft) (11,456 (11,549
	1,095 720 Iems Sun Tool DVT SS C C Ju	nmary Type , D/O S,C BP Ink Restr	5.500	0 5, 0 10, 0 0.D. (in) 9,622 5,500 3,500 4,000 4,775	000 662 600 5 0 0 0 8	5, 10, 15, (in) 0.000 0.000 1.500 4.00	600 · 527 · (() 0 0	12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,4 11,5	87 43 65 87 79	(MD ft) (11,450 (11,545 11,618
	I,095 720 Iems Sun DVT SS C C Ju ID F	mmary Type , D/O S,C BP ink Restr S,C	5.500	0 5, 0 10, (in) 9.62 5.500 4.000 4.77 5.500	000 662 600 55 0 0 0 0	5, 10, 15, (in) 0.000 0.000 1.500 4.00	600 · 527 · ((0 0 0	12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,4 11,5 11,5	87 43 65 87 79 88	(MD ft) (11,456 (11,545 (11,545) (11,617) (11,617)
	1,095 720 Iems Sun DVT C C JU ID F SS HIC,	Type 7, D/O 5,C BP unk Restr 5,C sqzd	5.500	0 5, 0 10, 0.D. (in) 9,622 5,500 3,500 4,000 4,775 5,500 5,500	0000 6622 6000 55 00 00 00 00 00	5, 10, 15, (in) 0,000 0,000 1,500 4,000 0,000 0,000	600 527 (0 0 0 0	12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,4 11,5 11,5 11,5	87 43 65 87 79 88 96	(MD ft) (11,456 (11,545 (11,545) (11,617) (11,617)
	1,095 720 Iems Sun DVT SS C JL ID F SS HIC, C	Type 7, D/O 5,C BP Ink Restr 5,C sqzd BP	5.500	0 5, 0 10, (in) 9,622 5,500 3,500 4,000 4,777 5,500 5,500 3,500 3,500	000 662 600 5 5 0 0 0 8 0 0 0	5, 10, 15, (in) 0.000 0.000 1.500 4.00 0.000 0.000 0.000	600 / 527 / 0 0 0 0	12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,4 11,5 11,5 11,5 11,6	87 43 65 87 79 88 96 65	(MD ft) (11,450 (11,545 (11,545 (11,617 (11,607) (11,596) (11,596)
	1,095 720 Iems Sun DVT SS C JL ID F SS HIC, C	nmary Type 7, D/O S,C BP Ink Restr S,C sqzd BP S,C	5.500	0 5, 0 10, 0.D. (in) 9.623 5.500 3.500 4.000 4.775 5.500 5.500 3.500 5.500	000 662 600 5 5 0 0 0 0 0 0 0 0	5, 10, 15, 15, 0.000 0.000 1.500 4.000 0.000 0.000 0.000 0.000	600 527 ((0 0 0 0 0 0 0 0 0 0 0 0	12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,4 11,5 11,5 11,5 11,6 11,6	87 43 65 87 79 88 96 65 89	(MD ft) (11,450 (11,545 (11,545 (11,617) (11,590 (11,70)
	1,095 720 Iems Sun DVT SS C Ju ID F SS HIC, C	nmary Type 5, D/O 5,C BP ink Restr 5,C 5,C 5,C 5,C 5,C	5.500	0 5, 0 10, 0.D. (in) 9.62 5.50 3.50 4.00 4.77 5.50 5.50 3.50 5.50 5.50	0000 662 6000 5 5 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, 0.000 0.000 1.500 4.00 0.000 0.000 0.000 0.000 0.000	600 / / / / / / / / / / / / / / / / / /	12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,5 11,5 11,5 11,6 11,6 11,7	87 43 65 87 79 88 96 65 65 89 89	(MD ft) (11,450 (11,545 (11,545 (11,617) (11,590 (11,70)
	1,095 720 Iems Sun DVT SS C Ju ID F SS HIC, C	nmary Type 7, D/O S,C BP Ink Restr S,C sqzd BP S,C	5.500	0 5, 0 10, 0.D. (in) 9.623 5.500 3.500 4.000 4.775 5.500 5.500 3.500 5.500	0000 662 6000 5 5 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, 15, 0.000 0.000 1.500 4.000 0.000 0.000 0.000 0.000	600 / / / / / / / / / / / / / / / / / /	12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,4 11,5 11,5 11,5 11,6 11,6	87 43 65 87 79 88 96 65 65 89 89	(MD ft) (11,450 (11,545 (11,545 (11,617) (11,590 (11,70)
	1,095 720 lems Sun DVT SS C JLD F SS HIC, C SS SS SS SS SS C SS C SS C SS	nmary Type 5, D/O 5,C BP ink Restr 5,C 5,C 5,C 5,C 5,C	5.500	0.D. (in) 9.62 5.50 3.50 4.00 4.77 5.50 5.50 3.50 5.50 5.50	0000 6622 6000 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, 0.000 0.000 1.500 4.00 0.000 0.000 0.000 0.000 0.000		12.6ppg 15ppg Top MD ft) 3,9 11,4 11,4 11,5 11,5 11,5 11,6 11,6 11,7	87 43 65 87 79 88 89 65 89 65	(MD ft) (11,450 (11,545 11,610 11,600 (11,600 (11,700 (11,700) (11,800) (11
	1,095 720 lems Sun DVT SS C JLD F SS C SS C SS C SS SS C	Type , D/O S,C BP Ink Restr S,C Sqzd BP S,C S,C BP BP S,C BP	5.500	O 5, 0 10, 0 10, 0 10, 9,622 5,500 3,500 4,000 4,771 5,500 5,500 3,500 5,500 3,500 5,500 3,500 5,500 3,500	000 662 600 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, (in) 0.000 0.000 1.500 4.000 0.000 0.000 0.000 0.000 0.000		12.6ppg 15ppg 15ppg 15ppg 11,4 11,4 11,4 11,5 11,5 11,5 11,6 11,6 11,7 11,8	87 43 65 87 79 88 96 65 89 65 91	(MD ft) (11,450 (11,545 (11,545 (11,617 (11,590 (11,70) (11,70) (11,805 (11,900
	1,095 720 lems Sun DVT SS C JL IDF SS C SS C SS C SS C SS C SS C SS SS C SS C SS SS SS	Type , D/O S,C BP Ink Restr S,C Sqzd BP S,C BP S,C BP S,C	5.500	O.D. 5, (in) 9,622 5,500 4,000 4,777 5,500 5,500 5,500 5,500 5,500 5,500 5,500	000 662 600 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, (in) 0,000 0,000 1,500 1,500 0,000 0,000 0,000 0,000 0,000 0,000 0,000		12.6ppg 15ppg 15ppg 15ppg 11,4 11,4 11,4 11,5 11,5 11,5 11,6 11,6 11,7 11,8 11,8	87 43 65 87 79 88 96 65 89 65 91 91	(MD ft) (11,450 (11,545 (11,545 (11,617 (11,590 (11,70) (11,70) (11,805 (11,900
	1,095 720 lems Sun DVT SS C JL IDF SS HIC, C SS HIC, C SS C SS C SS C	Type , D/O S,C BP Ink Restr S,C sqzd BP S,C S,C BP S,C S,C S,C S,C	5.500	0.D. (in) 9.622 5.500 3.500 4.000 4.777 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500	0000 6622 6000 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, (in) 0,000 0,000 1,500 4,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000		12.6ppg 15ppg Top MD ft) 3,9 11,4 11,5 11,5 11,6 11,6 11,6 11,7 11,8 11,8 11,9 11,9	87 43 65 87 79 88 96 65 89 65 91 91 91	(MD ft) (11,454 (11,545 (11,545 (11,545 (11,549 (11,599 (11,70) (11,800 (11,900 (11,900 (12,000 (11,900 (11
	1,095 720 lems Sun DVT SS JL IDF SS HIC, C SS HIC, C SS SS SS SS SS SS C SS SS SS C SS C SS C SS C SS SS C SS SS	Immary Type , D/O S,C BP unk Restr S,C BP BB S,C	5.500	0.D. (in) 9.622 5.500 3.500 4.000 4.000 4.777 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500	0000 6622 6000 55 00 00 00 00 00 00 00 00 00 00 00	5, 10, 15, 15, 0,000 0,000 1,500 4,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000		Top MD ft) 3,9 11,4 11,4 11,5 11,5 11,5 11,6 11,6 11,7 11,8 11,8 11,8 11,9 12,0 12,0	87 43 65 87 79 88 96 65 89 65 91 91 65 91	(MD ft) (11,45(11,54) 11,54(11,54) 11,61 11,59 (11,70) 11,80 (11,70) 11,80 (11,90 (11,90 (12,10 (12,10)
	1,095 720 lems Sun DVT SS JL IDF IDF IDF IDF SS HIC, C SS SS SS SS C SS C SS C SS C SS C SS SS SS	Immary Type , D/O S,C BP unk Restr S,C	5.500	0.D. (in) 9.622 5.500 3.500 4.000 4.777 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500	000 662 600 55 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, 0,000 0,000 1,500 4,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000 0,000		12.6ppg 15ppg 15ppg 11,4 11,4 11,5 11,5 11,5 11,5 11,6 11,6 11,6 11,7 11,8 11,8 11,8 11,9 12,0 12,0 12,0	87 43 65 87 79 88 96 65 89 96 65 91 91 95	(MD ft) (11,45(11,54) 11,54(11,54) 11,61 11,59 (11,70) 11,80 (11,70) 11,80 (11,90 (11,90 (12,10 (12,10)
	1,095 720 lems Sun DVT SS JL IDF IDF IDF IDF SS HIC, C SS SS C SS SS C SS SS SS C SS SS C SS SS C	Immary Type 5,C 5,C BP unk Restr 5,C S,C BP BP BP	5.500	0.D. (in) 9.622 5.500 3.500 4.000 4.777 5.5000 5.5000 5.5000 5.5000 5.5000 5.5000 5.5000 5.5000 5.500	000 662 600 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, 10, 15, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10		12.6ppg 15ppg 15ppg 11,4 11,4 11,5 11,5 11,5 11,5 11,6 11,6 11,6 11,7 11,8 11,8 11,9 12,0 12,0 12,0 12,1 12,2	87 43 65 87 79 88 96 65 89 96 65 91 91 95 65	(MD ft) 11,456 11,549 11,549 11,610 11,600 11,700 (11,700 11,800 (11,700 11,800 (11,900 12,000 (12,100 12,200 (12,
	1,095 720 lems Sun DVT SS C JL IDF IDF IDF IDF SS C C SS C SS C SS C SS SS C SS C SS C SS C SS C SS SS SS SS	Immary Type 5,C 5,S,C 8,S,C 5,C	5.500	O.D. (in) 9.62: 5.500 3.500 5.500 3.500 5.500 3.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500	000 662 600 5 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	5, 10, 15, 10, 15, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10		12.6ppg 15ppg 15ppg 11,4 11,4 11,5 11,5 11,5 11,5 11,6 11,6 11,6 11,7 11,8 11,9 12,0 12,0 12,1 12,2 12,3 12,3 12,3 12,3 15,0 1	87 43 65 87 79 88 96 65 89 96 65 91 91 95 65 00	(MD ft) (11,456 (11,545 (11,545 (11,545 (11,545 (11,617 (11,596 (11,702 (12,704 (12,704 (12,702 (12
	1,095 720 lems Sun DVT SS C JL IDF IDF IDF IDF SS C C SS C SS C SS C SS SS C SS C SS C SS SS SS SS SS SS SS	Immery Type 5,C	5.500	O.D. (in) 9.62: 5.500 3.500 5.500 3.500 5.500 3.500 5.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500 5.500		5, 10, 15, 10, 15, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10		12.6ppg 15ppg 15ppg 11,4 11,4 11,5 11,5 11,5 11,5 11,6 11,6 11,6 11,7 11,8 11,8 11,9 12,0 12,0 12,1 12,2 12,3 12,4	87 43 65 87 79 88 89 65 89 65 91 91 91 91 65 91 91 95 65 00 04	(MD ft) (11,456 (11,545 (11,545 (11,545 (11,545 (11,617 (11,596 (11,702 (12,704 (12,704 (12,702 (12
	1,095 720 lems Sun DVT SS C JL IDF IDF IDF SS CC	Immery Type 5,C 5,S,C 8P 5,C 5,C	5.500	O.D. (in) 9.62: 5.500 3.500 5.500 3.500 5.500 3.500 5.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500		5, 10, 15, 10, 15, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10		12.6ppg 15ppg 15ppg 11,4 11,4 11,5 11,5 11,5 11,5 11,5 11,6 11,6 11,6 11,7 11,8 11,9 12,0 12,0 12,1 12,2 12,3 12,4 12,5 12,4 12,5 12,4 12,5 1	87 43 65 87 79 88 96 65 91 91 91 65 91 91 95 65 00 04 68	(MD ft) (11,456 (11,545 (11,700 (11,904 (11,904 (12,104 (12,104 (12,206 (12,214 (12,214 (12,214 (12,214 (12,214 (12,214 (12,214 (12,214 (12,214) (12,214 (12,214) (12,2
	1,095 1,095 720 lems Sun DVT SS C JL IDF SS C IDF SS C SS C SS C SS SS C SS C SS C SS C SS C SS SS	Immery Type 5,C	5.500	O.D. (in) 9.62: 5.500 3.500 5.500 3.500 5.500 3.500 5.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 3.500 5.500 5.500 5.500 5.500 5.500 5.500		5, 10, 15, 10, 15, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10		12.6ppg 15ppg 15ppg 11,4 11,4 11,5 11,5 11,5 11,5 11,6 11,6 11,6 11,7 11,8 11,8 11,9 12,0 12,0 12,1 12,2 12,3 12,4	87 43 65 87 96 65 89 96 65 91 91 95 65 91 95 65 00 04 668 007	(MD ft) (11,456 (11,545 (11,545 (11,545 (11,545 (11,617 (11,596 (11,702 (12,704 (12,704 (12,702 (12

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Page 1 of 19

Date	Тооі Туре	O.D. (in)	I.D. (in)	Top (MD f	t)	Bott (MD	
	CBP	3.500	0.0	00 12	2,660		
	SS,C	5.500	0.0	00 12	2,710		12,72
	SS,C	5.500	0.0	00 12	2,813	1	12,82
	CBP	3.500	0.0	00 12	2,865		
	SS,C	5.500	0.0	00 12	2,916	1	12,92
	SS,C	5.500	0.0	00 13	3,017		13,03
	CBP	3.500	0.0	00 13	3,065		
	SS,C	5,500	0.0	00 13	3,120		13,13
	SS,C	5.500			3,218		13,23
	CBP	3.500			3,265	-	10,20
							10.00
	SS,C	5.500			3,319		13,33
	SS,C	5.500			3,419		13,43
	CBP	3.500	0.0	00 13	3,465		
	SS,C	5.500	0.0	00 13	3,517		13,52
	SS,C	5.500	0.0	00 13	3,619		13,63
	CBP	3.500	0.0	00 13	3,665		
	SS,C	5.500	0.0	00 13	3,715		13,72
	SS,C	5.500			3,813		13,82
	CBP	3.500			3,865		10,01
	in the second		1 1 2 2				10.00
	SS,C	5.500			3,915		13,92
	SS,C	5.500			4,014		14,02
	CBP	3.500	0.0	00 14	4,065		
	SS,C	5.500	0.0	00 14	4,112		14,12
	SS,C	5.500	0.0	00 14	4,211		14,22
	CBP	3,500	0.0	00 14	4,265		
	SS,C	5.500	0.0		4,315		14,32
	SS,C	5.500	100 March 100 Ma	-	4,414		14,42
		3.500					14,44
	CBP				4,465	_	
	SS,C	5.500			4,517		14,53
	SS,C	5.500			4,615		14,62
	CBP	3.500	0.0	00 14	4,665		
	SS,C	5.500	0.0	00 14	4,715		14,72
	SS,C	5.500	0.0	00 14	4,815		14,82
	CBP	3.500	0.0	00 14	4,865		
	SS,C	5.500	0.0	00 14	4,916		14,92
	CBP	3.500	0.0		5,015		
	SS,O	5.500			5,020		15,03
	SS,C	5.500			5,121		15,13
	SS,C	5,500			5,221		15,23
	SS,C	5.500			5,325		15,33
	SS,C	5.500		00 1	5,425		15,43
	FC	5.500			5,479		
	GS	5.500	0.0	00 1	5,525		
rforatio	Summary			_			
Date	Perf. Status	Formati	on	OA Top	OA B	ottom	Shot
				(MD ft)		Oft)	
	Open	3rd Bone Sp	-	11,475	-	11,628	4
	Open	3rd Bone Sp	pring	11,675		11,828	4
	Open	3rd Bone Sp	oring	11,885	1	12,033	4
	Open	3rd Bone Sp	oring	12,065	1	12,243	4
	Open	3rd Bone Sp	oring	12,280	1	12,443	4
	Open	3rd Bone Sp	oring	12,490	1	12,643	4
	Open	3rd Bone Sp		12,690		12,843	4
			-				
	Open	3rd Bone Sp	-	12,890		13,043	-
	Open	3rd Bone Sp	-	13,090		13,243	4
	Open	3rd Bone Sp	-	13,290		13,443	4
	Open	3rd Bone Sp	oring	13,490	1	13,643	
	Open	3rd Bone Sp	oring	13,690	1	13,973	4
	Open	3rd Bone Sp	oring	13,890	1	14,043	
	Open	3rd Bone Sp	-	14,090		14,242	:
	Open	3rd Bone Sp	-	14,000		14,442	
			anuu I	14,230	1		
			-		-	14.0.40	-
	Open	3rd Bone Sp	oring	14,490		14,642	

Open Open Formation Tops Summary 3rd Bone Spring

Open

Formation	Top (TVD ft)	Comments	
Rustler	1,869		
Top of Salt	2,447		
Castile	3,881		

3rd Bone Spring

3rd Bone Spring

14,842

14,987

15,467

36 36

36 66

14,690

14,895

15,090

Formation	Top (TVD ft)	Comments	
Base of Salt	4,280		
Yates	4,443		
Lamar Lime	5,739		_
Delaware	5,834		_
Cherry Canyon	6,052		_
Brushy Canyon	7,409		
Lower Brushy Canyon	8,458		
Bone Spring Glorietta	8,718		_
Avalon Shale	8,792		
Avalon	8,793		_
Base Avalon	8,998		
2nd Avalon	9,253		
1st Bone Spring	9,704		-
2nd Bone Spring	10,281		
3rd Bone Spring	11,103		_

Field Nam	e		Leas	e Name		Well	No.	Cou	nty		State	Ð	API N	0.	
Lennox			Lenno	ox 32 State		4H		Lea			New	Mexico	30025	412700	000
Version		Version Tag								Spud Dat	te	Comp. Dat	e GL (ft)	KB (ft)
	1	completed								8/16/	2014	5/19/20	16	3,456.0	3,476
Section	To	wnship/Block		Range/Surve	y	Dist.	N/S (ft)	N/S L	ine	Dist. E/W	(ft)	E/W Line	Footage	From	
32	22	S		35E			330	FSL			660	FWL	Section		
Operator	-				Well Status	-			Latit	tude	-	Longitude		Prop	Num
Caza Oil a	nd G	as, Inc			Completed										
OGRID			N	Vell Type			Pool Na	me an	nd Nu	mber		Lease	No. and E	Bond No	.
249099			H	lorizontal Oil								Rock L	ake; Bone	Spring	
Last Upda	ted		-	Prepared By						Updated	By				
05/26/2016	6 6:2	4 AM		Steve Morris						Steve M	orris				
Additional	I Info	rmation									_				

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)					Cor	nments
	26.000	0	139						
	17.500	139	703						
	12.250	703	5,760						
	8.750	5,760	15,545						
Tubular S	ummary								
Date	De	scription	No	O.D. (in)	Wt	Grade	Тор	Bottom	Comments

Date	Description	Jts	0.0. (11)	(lb/ft)	Glade	(MD ft)	(MD ft)	Commenta
	Conductor Casing		20.000	94.00		0	139	
	Surface Casing		13.375	48.00	H-40	0	703	ID 12.715" Burst 1730 Collapse 770 Tensile 322,000
	Intermediate Casing		9.625	40.00	J-55	0	3,987	ID 8.835" Burst 3950 Collapse 2570 Tensile 630,000
	Intermediate Casing		9.625	40.00	HCK-80	3,987	5,752	ID 8.835" Burst 5750 Collapse 4230 Tensile 837,000
	Production Casing		5.500	20.00	HCP-110	0	15,527	ID 4.892" Burst 10640 Collapse 7480 Tensile 546,000

Casing Cement Summary

	Date	No. Sx	Yield (ft3/sk)	Vol. (ft3)	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
		390	1.75	683	13.375	0	403	Class C with 4% Gel + 2% CaCl2	
		229	1.35	309	13.375	403	703	Class C with 2% CaCl2	14.8ppg
		1,100	2.13	2,343	9.625	0	3,787	Class C Lite 65:35	12.6ppg
		100	1.35	135	9.625	3,787	3,987	Class C	14.8ppg
		310	2.13	660	9.625	3,987	5,000	Class C 65:35	12.6ppg
		250	1.35	338	9.625	5,000	5,752	Class C	14.8ppg
ī		1,095	2.13	2,332	5.500	5,662	10,600	Class H Lite	12.6ppg
		720	1.15	828	5.500	10,600	15,527	Class H Acid soluble	15ppg

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	DV tool (drilled out)	9.625	0.000	3,987	0	18' long	
	Sliding Sleeve (closed)	5.500	0.000	11,443	11,456	NCS	Sleeve 40
	Composite Bridge Plug	3.500	0.000	11,465	0		Drilled out
	Junk	4.000	1.500	11,487	11,549	Drillout BHA and 30' of coil	
	ID Restriction	4.778	4.001	11,579	11,618	Casing Patch	
	Sliding Sleeve (closed)	5.500	0.000	11,588	11,601	NCS	Sleeve 39
	Casing Leak (squeezed)	5.500	0.000	11,596	11,598		Squeezed cement and well lock
	Composite Bridge Plug	3.500	0.000	11,665	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	11,689	11,702	NCS	Sleeve 38
	Sliding Sleeve (closed)	5.500	0.000	11,789	11,803	NCS	Sleeve 37
	Composite Bridge Plug	3.500	0.000	11,865	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	11,891	11,904	NCS	Sleeve 36
	Sliding Sleeve (closed)	5.500	0.000	11,991	12,004	NCS	Sleeve 35
	Composite Bridge Plug	3.500	0.000	12,065	0	Long Range Gen 2	Drilled out
-	Sliding Sleeve (closed)	5,500	0.000	12,091	12,104	NCS	Sleeve 34
	Sliding Sleeve (closed)	5.500	0.000	12,195	12,208	NCS	Sleeve 33
_	Composite Bridge Plug	3.500	0.000	12,265	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,300	12,313	NCS	Sleeve 32
	Sliding Sleeve (closed)	5.500	0.000	12,404	12,417	NCS	Sleeve 31
	Composite Bridge Plug	3.500	0.000	12,468	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,507	12,520	NCS	Sleeve 30
	Sliding Sleeve (closed)	5.500	0.000	12,609	12,622	NCS	Sleeve 29
	Composite Bridge Plug	3.500	0.000	12,660	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,710	12,723	NCS	Sleeve 28
	Sliding Sleeve (closed)	5.500	0.000	12,813	12,826	NCS	Sleeve 27
	Composite Bridge Plug	3.500	0.000	12,865	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	12,916	12,929	NCS	Sleeve 26
	Sliding Sleeve (closed)	5.500	0.000	13,017	13,030	NCS	Sleeve 25
	Composite Bridge Plug	3.500	0.000	13,065	0	Long Range Gen 2	Not drilled out

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Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	Sliding Sleeve (closed)	5.500	0.000	13,120	13,133	NCS	Sleeve 24
	Sliding Sleeve (closed)	5.500	0.000	13,218	13,231	NCS	Sleeve 23
	Composite Bridge Plug	3.500	0.000	13,265	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,319	13,331	NCS	Sleeve 22
	Sliding Sleeve (closed)	5.500	0.000	13,419	13,432	NCS	Sleeve 21
	Composite Bridge Plug	3.500	0.000	13,465	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,517	13,529	NCS	Sleeve 20
	Sliding Sleeve (closed)	5.500	0.000	13,619	13,631	NCS	Sleeve 19
	Composite Bridge Plug	3.500	0.000	13,665	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,715	13,728	NCS	Sleeve 18
	Sliding Sleeve (closed)	5.500	0.000	13,813	13,826	NCS	Sleeve 17
0	Composite Bridge Plug	3.500	0.000	13,865	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	13,915	13,928	NCS	Sleeve 16
	Sliding Sleeve (closed)	5.500	0.000	14,014	14,026	NCS	Sleeve 15
	Composite Bridge Plug	3.500	0.000	14,065	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,112	14,125	NCS	Sleeve 14
	Sliding Sleeve (closed)	5.500	0.000	14,211	14,224	NCS	Sleeve 13
	Composite Bridge Plug	3.500	0.000	14,265	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,315	14,328	NCS	Sleeve 12
	Sliding Sleeve (closed)	5.500	0.000	14,414	14,427	NCS	Sleeve 11
	Composite Bridge Plug	3.500	0.000	14,465	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,517	14,530	NCS	Sleeve 10
	Sliding Sleeve (closed)	5.500	0.000	14,615	14,628	NCS	Sleeve 9
	Composite Bridge Plug	3.500	0.000	14,665	0	Long Range Gen 2	Not drilled out
	Sliding Sleeve (closed)	5:500	0.000	14,715	14,728	NCS	Sleeve 8
	Sliding Sleeve (closed)	5.500	0.000	14,815	14,828	NCS	Sleeve 7
	Composite Bridge Plug	3.500	0.000	14,865	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (closed)	5.500	0.000	14,916	14,929	NCS	Sleeve 6
	Composite Bridge Plug	3.500	0.000	15,015	0	Long Range Gen 2	Drilled out
	Sliding Sleeve (open)	5.500	0.000	15,020	15,033	NCS	Sleeve 5
	Sliding Sleeve (closed)	5.500	0.000	15,121	15,134	NCS	Sleeve 4
	Sliding Sleeve (closed)	5.500	0.000	15,221	15,234	NCS	Sleeve 3
	Sliding Sleeve (closed)	5.500	0.000	15,325	15,338	NCS	Sleeve 2
	Sliding Sleeve (closed)	5.500	0.000	15,425	15,437	NCS	Sleeve 1
	Float Collar	5.500	0.000	15,479	0		
	Guide Shoe	5.500	0.000	15,525	0		

Perf. Status Date Formation Comments С Stage 1 Initial WHP: 3,930 Breakdown: 4,572 Max Pressure: pen 3rd Bone Spring psi psi 8,551 7,713 82.7 76.5 psi psi bpm Avg. Pressure: Max Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: bpm Ibm / 132,160 466,500 lbm / Top (MD ft) Bottom (MD ft) SPF Shots Phasing (deg) Interval Comments 15,465 15,467 60 12 15,415 15,417 12 60 60 15,365 15,367 10 15,315 15,317 60 8 60 15,240 15,242 6 60 15,190 15,192 6 15,140 15,142 60 6 60 15,090 15,092 Date Perf. Status Comments С Formation Stage 2 Initial WHP: 4,106 Breakdown: 8,254 Max Pressure: 3rd Bone Spring Open psi psi 8,388 7,865 psi psi Max Pressure: Avg. Pressure: Max Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: 83.1 67.4 bpm bpm 65,000 lbm / 186,600 lbm / Top (MD ft) Bottom SPF Shots Phasing (deg) Interval Comments (MD ft) 14,985 14,987 10 60 14,957 14,955 60 10 14,925 60 14,927 8 60 14,895 14,897 Comments Date Perf. Status Formation С

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	st Upda								
C	Date	Perf. Status	Form	ation				Comments	
	C	Open	3rd Bone Sp	ring	Stage 3				
					Initial WHP:		psi		
					Breakdown:		psi		
					Max Pressure		8,876	psi	
					Avg. Pressure	:	7,766	psi	
					Max Slurry Ra		80.6	bpm	
	1				Avg. Slurry Ra		64.8	bpm	
					40/70 ProLite:		65,100	lbm /	
					20/40 ProLite:		234,140	lbm /	
	Тор	Bottom	SPF	Shots	Phasing (deg)			Interval Comments	
	(MD ft)	(MD ft)							
	14,84	40 14,	342 4	10	60				
	14,79	90 14,	792 4	10	60				
				8					_
	14,74			1 °					
	14,69	90 14,	692 4	4 8	60				
C	Date	Perf. Status	Form	ation				Comments	
<u> </u>					01			Commenta	
	c	Open	3rd Bone Sp	ring	Stage 4	1011			
					Initial WHP:		psi		
					Breakdown:		psi		
					Max Pressure		8,501	psi	
					Avg. Pressure		8,000	psi	
					Max Slurry Ra	te:	81.0	bpm	
					Avg. Slurry Ra		49.9	bpm	
					40/70 ProLite:		65,240	lbm /	
					20/40 ProLite:		240,120	lbm /	
	Тор	Bottom	SPF	Shots	Phasing (deg)			Interval Comments	
	(MD ft)	(MD ft)							
	14,64	40 14,	642 4	10	60				
	14,59			10	60				
	14,54			4 8					
	14,49	90 14,	492 4	4 8	60				
C	Date	Perf. Status		ation				Comments	_
4								Comments	
	K	Open	3rd Bone Sp	ring	Stage 5				
					Initial WHP:		psi		
			· .		Breakdown:		psi		
					Max Pressure	:	9,159	psi	
					Avg. Pressure	:	8,207	psi	
					Max Slurry Ra		80.7	bpm	
					Avg. Slurry Ra	ate:	45.6	bpm	
					40/70 ProLite:		64,560	lbm /	
					20/40 ProLite:		236,340	lbm /	
	Тор	Bottom	SPF	Shots	Phasing (deg)			Interval Comments	
	(MD ft)	(MD ft)	J OF T	011003	r nasnig (deg)				
_			110	1					
	14.4	40 14	44/1	1	60				
_	14,4			1 10					
	14,4			10 10					
	14,3	90 14,	392		60				
	14,3 14,3	90 14, 40 14,	392 4 342 4	4 10 4 8	60 60				
	14,3	90 14, 40 14,	392 4 342 4	10	60 60				
	14,3 14,3 14,2	90 14, 40 14, 90 14,	392 4 342 4 292 4	4 10 4 8	60 60			Comments	
	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 . 60			Comments	
	14,3 14,3 14,2 Date	90 14, 40 14, 90 14,	392 4 342 4 292 4	4 10 4 8 4 8 hation	60 60 60 Stage 6		nei	Comments	
	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 Stage 6 Initial WHP:	4,268	psi	Comments	
	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 60 Stage 6 Initial WHP: Breakdown:	4,268 7,663	psi		
C	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 Stage 6 Initial WHP: Breakdown: Max Pressure	4,268 7,663	psi 8,767	psi	
	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure	4,268 7,663 :	psi 8,767 7,363	psi psi	
C	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Max Slurry Ra	4,268 7,663 : : :	psi 8,767 7,363 80.6	psi psi bpm	
C	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Max Slurry Ra Avg. Slurry Ra	4,268 7,663 :: :te: :te: :te:	psi 8,767 7,363 80.6 79.9	psi psi bpm bpm	
	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Pressure Avg. Slurry Ra Avg. Slurry Ra Avg. Slurry Ra	4,268 7,663 : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm lbm /	
C	14,3: 14,3: 14,2: Date	90 14, 40 14, 90 14, Perf. Status Open	392 4 342 4 292 7 3rd Bone Sp	4 10 4 8 4 8 iation ring	60 60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Pressure Avg. Slurry Ra Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite:	4,268 7,663 :: :: :: :: :: ::	psi 8,767 7,363 80.6 79.9	psi psi bpm bpm Ibm / Ibm /	
0	14,3: 14,3: 14,2: Date	90 14, 40 14, 90 14, Perf. Status Open	392 4 342 4 292 Form	4 10 4 8 4 8 hation	60 60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Pressure Avg. Slurry Ra Avg. Slurry Ra Avg. Slurry Ra	4,268 7,663 :: :: :: :: :: ::	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm lbm /	
	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft)	392 4 342 4 292 7 3rd Bone Sp SPF	4 10 4 8 4 8 ation ring Shots	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Max Slurry Ra Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg)	4,268 7,663 : : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm /	
C	14,3: 14,3: 14,2: Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft)	392 4 342 4 292 7 3rd Bone Sp SPF	4 10 4 8 4 8 iation ring	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Max Slurry Ra Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg)	4,268 7,663 : : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm /	
C	14,3 14,3 14,2 Date	90 14, 40 14, 90 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14,	392 4 342 4 292 7 3rd Bone Sp SPF	4 10 4 8 4 8 ation ring Shots	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Max Slurry Ra Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60	4,268 7,663 : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm /	
C	14,3 14,3 14,2 Date 0 (MD ft) 14,2 14,2 14,2	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4	10 10 8 8 ation ring Shots 4 10 4 10	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60	4,268 7,663 : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm /	
C	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4	4 10 4 8 4 8 4 8 4 8 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8 8	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60	4,268 7,663 : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm /	
C	14,3 14,3 14,2 Date 0 (MD ft) 14,2 14,2 14,2	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4	10 10 8 8 ation ring Shots 4 10 4 10	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Max Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60	4,268 7,663 : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm /	
	14,3 14,3 14,2 Date 7 0 (MD ft) 14,2 14,1 14,2 14,1 14,1 14,1	90 14, 40 14, 90 14, Perf. Status Open 40 14, 90 14, 40 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4	4 10 4 8 4 8 aation ring 5 hots 4 10 4 10 4 8 4 8	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60	4,268 7,663 : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60	4,268 7,663 : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340	psi psi bpm bpm Ibm / Ibm /	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open 40 14, 90 14, 40 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 :: :: :: :: :: :: ::	psi 8,767 7,363 80.6 79.9 66,340 239,320	psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 Stage 6 Initial WHP: Breakdown: Max Pressure Max Slury Ra Avg. Slury Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: 20/40 ProLite: 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : : : : : : : : : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340 239,320	psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : : : : : : : : : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi psi	psi psi bpm bpm Ibm / Ibm / Interval Comments	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slury Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 :: tte: ate: 4,392 8,252 :	psi 8,767 7,363 80.6 79.9 66,340 239,320 239,320	psi psi bpm bpm lbm / lbm / Interval Comments Comments	
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	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : : : : : : : : : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340 239,320 239,320 psi 8,777 7,703 81.0	psi psi bpm bpm lbm / lbm / Interval Comments Comments	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 :: tte: ate: 4,392 8,252 : tte: ate: tte: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 239,320 psi psi 8,777 7,703 81.0 79.0	psi psi bpm bpm lbm / lbm / Interval Comments Comments	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,268 7,663 : : : : : : : : : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi pm bpm lbm / lbm / Interval Comments Comments psi psi psi bpm bpm lbm /	
	14.3 14.3 14.2 Date ((MD ft) 14.2 14.1 14.1 14.1 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 7 142 7 142 7 142 7 142 7 142 7 142 7 142 7 142 7 142 7 144	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : : : : : : : : : : : : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340 239,320 239,320 psi psi 8,777 7,703 81.0 79.0	psi psi bpm bpm lbm / lbm / Interval Comments Comments	
	14,3 14,3 14,2 Date (MD ft) 14,2 14,1 14,1 14,1 14,0 Date	90 14, 40 14, 90 14, Perf. Status Open 40 14, 90 14, 40 14, 90 14, 90 14, 90 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 7 142 7 142 7 142 7 142 7 142 7 142 7 142 7 142 7 142 7 144	4 10 4 8 ation ring Shots 4 10 4 10 4 8 4 8 ation ring	60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: 20/40 ProLite: 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : : : : : tte: ate: 4,392 8,252 : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi pm bpm lbm / lbm / Interval Comments Comments psi psi psi bpm bpm lbm /	
	14.3 14.3 14.2 Date 7 0 (MD ft) 14.2 14.1 14.1 14.0 Date 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 90 14, 90 14, 90 14, 90 14,	392 4 342 4 292 7 3rd Bone Sp 242 7 192 7 142 7 092 7 3rd Bone Sp 3rd Bone Sp	4 10 4 8 4 8 4 8 4 8 4 8 4 10 4 10 4 8 4 8 4 8 4 8	60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,268 7,663 : : : : : tte: ate: 4,392 8,252 : : : : : : :	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	
	14.3 14.3 14.2 Date (MD ft) 14.2 14.1 14.1 14.0 Date (MD ft)	90 14, 40 14, 90 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 1	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 7 192 7 142 7 192 7 142 7 192 7 142 7 192 7 142 7 142 7 192 7 142 7 142 7 142 7 142 7 142 7 144	A 10 A 8 A 8 A 8 A 8 A 8 A 8 A 8 A 10 A 10 A 10 A 10 A 8	60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : : tte: ate: 4,392 8,252 : : : tte: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	
	14.3 14.3 14.2 Date (MD ft) 14.2 14.1 14.1 14.0 Date (MD ft) 14.0 Date (MD ft) 14.0 14.0 Date	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 9	392 4 342 4 292 4 3rd Bone Sp 3rd Bone Sp 242 4 192 4 192 4 142 4 092 4 142 4 092 4 SPF 093 5 094 5 SPF 043 4 043 4 043 4 043 4 043 4 044 4 0		60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : :te: ate: 4,392 8,252 : : te: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	
	14.3 14.3 14.2 Date (MD ft) 14.2 14.1 14.1 14.0 Date (MD ft)	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 9	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 7 192 7 142 7 192 7 142 7 192 7 142 7 192 7 142 7 142 7 192 7 142 7 142 7 142 7 142 7 142 7 144	A 10 A 8 A 8 A 8 A 8 A 8 A 8 A 7	60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : :te: ate: 4,392 8,252 : : te: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	
	14,3 14,3 14,2 Date (MD ft) 14,2 14,1 14,1 14,1 14,0 Date (MD ft) 14,0 Date (MD ft) 14,0 13,9	90 14, 40 14, 90 14, 90 14, Perf. Status Open 40 14, 90 13,	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 192 4 142 4 092 7 3rd Bone Sp 5 5 5 5 5 5 5 5 5 5 5 5 5		60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,268 7,663 : :tte: ate: 4,392 8,252 : : : : tte: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	
c	14,3 14,3 14,2 Date (MD ft) 14,2 14,1 14,0 Date (MD ft) 14,0 Date (MD ft) 14,0 13,9 13,9	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 14, 90 14, 90 13, 90 14, 90 13, 90 14, 90 13, 90 13, 90 14, 90 13, 90 14, 90 13, 90 14, 90 13, 90 14, 90 14, 90 13, 90 14, 90 1	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 192 4 142 4 192 4 142 4 192 4 142 4 192 4 142 4 142 4 192 4 142 4 144		60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: Breakdown: Stage 7 Initial WHP: Breakdown: Stage 7 Initial WHP: Breakdown: 20/40 ProLite: 20/40 ProL	4,268 7,663 : :tte: ate: 4,392 8,252 : : : tte: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	
C	14,3 14,3 14,2 Date (MD ft) 14,2 14,1 14,1 14,1 14,0 Date (MD ft) 14,0 Date (MD ft) 14,0 13,9	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 14, 90 14, 90 13, 90 14, 90 13, 90 14, 90 13, 90 13, 90 14, 90 13, 90 14, 90 13, 90 14, 90 13, 90 14, 90 14, 90 13, 90 14, 90 1	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 192 4 142 4 092 7 3rd Bone Sp 5 5 5 5 5 5 5 5 5 5 5 5 5		60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: Breakdown: Stage 7 Initial WHP: Breakdown: Stage 7 Initial WHP: Breakdown: 20/40 ProLite: 20/40 ProL	4,268 7,663 : :tte: ate: 4,392 8,252 : : : tte: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	
	14,3 14,3 14,2 Date (MD ft) 14,2 14,1 14,0 Date (MD ft) 14,0 Date (MD ft) 14,0 13,9 13,9	90 14, 40 14, 90 14, Perf. Status Open Bottom (MD ft) 40 14, 90 14, 14, 90 14, 90 13, 90 14, 90 13, 90 14, 90 13, 90 13, 90 14, 90 13, 90 14, 90 13, 90 14, 90 13, 90 14, 90 14, 90 13, 90 14, 90 1	392 4 342 4 292 7 3rd Bone Sp 3rd Bone Sp 242 4 192 4 142 4 092 7 3rd Bone Sp 6 5 5 6 6 7 7 7 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7 8 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9		60 60 60 60 5tage 6 Initial WHP: Breakdown: Max Pressure Avg. Pressure Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite: 20/40 ProLite: Breakdown: Stage 7 Initial WHP: Breakdown: Stage 7 Initial WHP: Breakdown: 20/40 ProLite: 20/40 ProL	4,268 7,663 : :tte: ate: 4,392 8,252 : : : tte: ate:	psi 8,767 7,363 80.6 79.9 66,340 239,320 psi 8,777 7,703 81.0 79.0 65,660	psi ppi bpm bpm lbm / lbm / Interval Comments Comments	

C	-									
_	Date	Perf. S		Forma					Comments	
		Open	31	rd Bone Spr	ing	Stage 8 Initial WHP:	4 200	nei		
						Breakdown:		psi		
						Max Pressure		8,666	psi	
						Avg. Pressure		7,902	psi	
						Max Slurry Ra		80.7	bpm	
						Avg. Slurry Ra		71.6	bpm	
						40/70 ProLite:		65,400	lbm /	
						20/40 ProLite:		234,100	lbm /	
	Тор		lottom	SPF	Shots	Phasing (deg)			Interval Comments	
	(MD ft)		MD ft)		10					_
	13,8		13,843		12	60				
	13,7	'90	13,973	4	12	60				
	13,7	40	13,742	. 4	10	60				
	13,6	690	13,692	4	10	60				
C	Date	Perf. S		Forma	ation				Comments	
<u> </u>	Date					01			Comments	_
		Open	3	rd Bone Spr	ing	Stage 9 Initial WHP:	4 240	psi		
						Breakdown:		psi		
						Max Pressure		8,807	psi	
						Avg. Pressure	0	7,503	psi	
						Max Slurry Ra		80.9	bpm	
						Avg. Slurry Ra		73.9	bpm	
						40/70 ProLite: 20/40 ProLite:		62,000	Ibm / Ibm /	
	7		1000	005	Chata			241,220		
	Top (MD ft)		Bottom MD ft)	SPF	Shots	Phasing (deg)			Interval Comments	
				4	12	60				_
	13,6		13,643							
	13,5		13,593		12	60				
	13,5	540	13,542	4	10	60				
	13,4	190	13,492	4	10	60				
С	Date	Perf. S		Forma	ation				Comments	
-	Date					Stage 10			ooninion a	
		Open	3	rd Bone Spr	ing	Stage 10 Initial WHP:	4 203	psi		
						Breakdown:		psi		
						Max Pressure		9,025	psi	
						Avg. Pressure		7,675	psi	
						Max Slurry Ra	ite:	80.6	bpm	
						Avg. Slurry Ra		72.3	bpm	
						40/70 ProLite:		67,060	lbm /	
						20/40 Drol Hay				
-	-	L		0.05	01	20/40 ProLite:		239,800	lbm /	
	Top		Bottom	SPF	Shots	20/40 ProLite: Phasing (deg)				
	(MD ft)	(MD ft)			Phasing (deg)			lbm /	
	(MD ft) 13,4	(MD ft) 13,443	3 4	12	Phasing (deg) 60			lbm /	
	(MD ft) 13,4 13,3	(140 390	MD ft) 13,443 13,393	s 4 s 4	12	Phasing (deg) 60 60			lbm /	
	(MD ft) 13,4	(140 390	MD ft) 13,443	s 4 s 4	12	Phasing (deg) 60			lbm /	
	(MD ft) 13,4 13,3	(140 390 340	MD ft) 13,443 13,393	8 4 8 4 2 4	12	Phasing (deg) 60 60			lbm /	
	(MD ft) 13,4 13,3 13,3 13,2	(140 390 340 290	MD ft) 13,443 13,393 13,342 13,292	8 4 8 4 2 4 2 4	12 12 10 10	Phasing (deg) 60 60 60			Ibm / Interval Comments	
С	(MD ft) 13,4 13,3 13,3	(440 390 340 290 Perf. S	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation	Phasing (deg) 60 60 60 60			lbm /	
	(MD ft) 13,4 13,3 13,3 13,2	(140 390 340 290	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4	12 12 10 10 ation	Phasing (deg) 60 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80		239,800	Ibm / Interval Comments	
	(MD ft) 13,4 13,3 13,3 13,2	(440 390 340 290 Perf. S	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation	Phasing (deg) 60 60 60 60	4,382		Ibm / Interval Comments	
	(MD ft) 13,4 13,3 13,3 13,2	(440 390 340 290 Perf. S	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation	Phasing (deg) 60 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382	239,800	Ibm / Interval Comments	
	(MD ft) 13,4 13,3 13,3 13,2	(440 390 340 290 Perf. S	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation	Phasing (deg) 60 60 60 60 8tage 11 Initial WHP: Breakdown: Max Pressure Avg. Pressure	4,382 8,882 5	239,800 psi psi 8,900 8,078	Ibm / Interval Comments Comments	
	(MD ft) 13,4 13,3 13,3 13,2	(440 390 340 290 Perf. S	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation	Phasing (deg) 60 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 :: ::	239,800 psi 8,900 8,078 80,9	Ibm / Interval Comments Comments psi psi bpm	
	(MD ft) 13,4 13,3 13,3 13,2	(440 390 340 290 Perf. S	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation	Phasing (deg) 60 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 : : : : : : :	239,800 psi psi 8,900 8,078 80.9 72.1	Ibm / Interval Comments Comments psi psi bpm bpm	
	(MD ft) 13,4 13,3 13,3 13,2	(440 390 340 290 Perf. S	MD ft) 13,443 13,393 13,342 13,292 Status	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 :: :: :: :: ::	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm bpm bpm bbm /	
	(MD ft) 13,4 13,5 13,5 13,2 13,2 Date	(1440 3990 3440 2990 Perf. \$ Open	MD ft) 13,443 13,393 13,342 13,292 Status 3	4 4 2 4 2 4 Forma rd Bone Spr	12 12 10 10 ation ing	Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 60	4,382 8,882 : : : : tte: ate:	239,800 psi psi 8,900 8,078 80.9 72.1	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm /	
С	(MD ft) 13,4 13,5 13,5 13,5 13,5 Date Top	(1440 3990 3440 2990 Perf. 5 Open	MD ft) 13,443 13,393 13,342 13,292 Status 3 Status 3 Sottom	8 4 8 4 2 4 2 4 Forma	12 12 10 10 ation ing	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 : : : : tte: ate:	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm bpm bpm bbm /	
С	(MD ft) 13,4 13,5 13,5 13,2 Date Top (MD ft)	(140 390 290 Perf. 5 Open	MD ft) 13,443 13,393 13,342 13,292 Status 30 Sottom MD ft)	s 4 4 4 2 4 Forma rd Bone Spr	12 12 10 10 ation ing Shots	Phasing (deg) 60 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 4,382 8,882 :: :: :: :: :: ::	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm /	
С	(MD ft) 13,4 13,5 13,5 13,2 Date Top (MD ft) 13,2 13,2 13,2 13,2 13,2 13,5 1	(1440 3900 3400 2900 Perf. S Open	MD ft) 13,443 13,393 13,342 13,292 Status 30 Sottom MD ft) 13,243	SPF	12 12 10 10 ation ing Shots 12	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 5: tte: ate:	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm /	
С	(MD ft) 13,4 13,5 13,5 13,2 Date Top (MD ft) 13,7 1	(140 390 340 290 Perf. S Open E (240	MD ft) 13,443 13,393 13,342 13,292 Status 30 Sottom MD ft) 13,243 13,193 30 30 30 30 30 30 30 30 30 3	SPF	12 12 10 10 ation ing Shots 12 12	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 5: tte: ate:	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm /	
С	(MD ft) 13,4 13,5 13,5 13,2 Date Top (MD ft) 13,4 13,7 1	(440 390 290 Perf. 5 Open E (240 190 140	MD ft) 13,443 13,393 13,342 13,292 Status 30 Sottom MD ft) 13,243 13,193 13,142	SPF	12 12 10 10 ation ing Shots 12 12 12 12	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 4,382 8,882 :: :: :: :: :: ::	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm /	
С	(MD ft) 13,4 13,5 13,5 13,2 Date Top (MD ft) 13,7 1	(440 390 290 Perf. 5 Open E (240 190 140	MD ft) 13,443 13,393 13,342 13,292 Status 30 Sottom MD ft) 13,243 13,193 30 30 30 30 30 30 30 30 30 3	SPF	12 12 10 10 ation ing Shots 12 12	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 4,382 8,882 :: :: :: :: :: ::	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm /	
С	(MD ft) 13,4 13,5 13,5 13,2 Date Top (MD ft) 13,4 13,7 1	(440 390 290 Perf. 5 Open E (240 190 140	MD ft) 13,443 13,393 13,342 13,292 Status 30 Sottom MD ft) 13,243 13,193 13,142 13,092	SPF	12 12 10 10 ation ing Shots 12 12 12 10 10	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 4,382 8,882 :: :: :: :: :: ::	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm /	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(440 390 290 Perf. 5 Open E (240 190 140 990 Perf. 5	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 3 4 4 5 4 3 4 4 4 5 4 5 4 5 4 5 4 5 4 5 4	12 12 10 10 ation shots 12 12 12 10 10 10 10	Phasing (deg) 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 4,382 8,882 :: :: :: :: :: ::	239,800 psi si 8,900 8,078 80.9 72.1 65,740	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(1440 3900 2900 2900 2900 2900 2900 2900 290	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 2 4 Forma rd Bone Spr 3 4 3 4 2 4	12 12 10 10 ation shots 12 12 12 10 10 10 10	Phasing (deg) 60 600 600 600 600 600 600 800 600 800 800 Stage 11 Initial WHP: Breakdown: Max Pressure Max Slurry Ra Avg. Pressure Avg. Slurry Ra 40/70 ProLite: Phasing (deg) 600 600 600 600 600 Stage 12 Stage 12	4,382 8,882 : :: ite: ate:	239,800 psi psi 8,900 8,078 80.9 72.1 65,740 240,160	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(440 390 290 Perf. 5 Open E (240 190 140 990 Perf. 5	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 3 4 4 5 4 3 4 4 2 4 5 6 mm	12 12 10 10 ation shots 12 12 12 10 10 10 10	Phasing (deg) 60 60 60 60 60 60 60 81 81 81 81 81 81 81 81 81 81	4,382 8,882 :: tte: ate: 4,321 5,413	239,800 psi psi 8,900 8,078 80.9 72.1 65,740 240,160 psi psi psi psi psi 240,160	Ibm / Interval Comments Comments psi psi ppm bpm Ibm / Ibm / Ibm / Interval Comments Comments	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(440 390 290 Perf. 5 Open E (240 190 140 990 Perf. 5	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 3 4 4 5 4 3 4 4 2 4 5 6 mm	12 12 10 10 ation shots 12 12 12 10 10 10 ation	Phasing (deg) 60 60 60 60 60 60 60 60 81 81 81 81 81 81 81 81 81 81	4,382 8,882 : : : tte: ate: 4,321 5,413 :	239,800 psi psi 8,900 8,900 8,078 80.9 72.1 65,740 240,160 psi psi 8,891	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments Comments	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(440 390 290 Perf. 5 Open E (240 190 140 990 Perf. 5	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 3 4 4 5 4 3 4 4 2 4 5 6 mm	12 12 10 10 ation shots 12 12 12 10 10 10 ation	Phasing (deg) 60 60 60 60 60 60 60 60 8 8 8 9 8 9 8 9 9 8 9 9 9 9 9 9 9 9 9	4,382 8,882 : : : tte: ate: 4,321 5,413 : :	239,800 psi psi 8,900 8,078 80.9 72.1 65,740 240,160 psi psi 8,891 7,742	Ibm / Interval Comments Comments psi ppi bpm bpm bpm bpm bpm bpm bpm bpm bpm bpm	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(440 390 290 Perf. 5 Open E (240 190 140 990 Perf. 5	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 3 4 4 5 4 3 4 4 2 4 5 6 mm	12 12 10 10 ation shots 12 12 12 10 10 10 ation	Phasing (deg) 60 60 60 60 60 60 60 81 81 81 81 81 81 81 81 81 81	4,382 8,882 :: tte: ate: 4,321 5,413 ::	239,800 psi psi 8,900 8,078 80.9 72.1 65,740 240,160 psi psi 8,891 7,742 80.9	Ibm / Interval Comments Comments psi psi ppm bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi psi bpm	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(440 390 290 Perf. 5 Open E (240 190 140 990 Perf. 5	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 3 4 4 5 4 3 4 4 2 4 5 6 mm	12 12 10 10 ation shots 12 12 12 10 10 10 ation	Phasing (deg) 60 60 60 60 60 60 60 60 81 81 81 81 81 81 81 81 81 81	4,382 8,882 : : : tte: ate: 4,321 5,413 : : : : : : : : : : : : : : : : : : :	239,800 psi psi 8,900 8,078 80.9 72.1 65,740 240,160 psi psi 8,891 7,742 80.9 79.8	Ibm / Interval Comments Comments psi psi bpm bpm lbm / lbm / lbm / Interval Comments Comments psi psi bpm psi ppi bpm bpm psi bpm	
C	(MD ft) 13,4 13,5 13,5 13,2 Date Date (MD ft) 13,4 13,7	(440 390 290 Perf. 5 Open E (240 190 140 990 Perf. 5	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 4 3 13,243 13,243 13,193 13,142 13,092 Status 13,142 13,243 13,243 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF 3 4 3 4 4 5 4 3 4 4 2 4 5 6 mm	12 12 10 10 ation shots 12 12 12 10 10 10 ation	Phasing (deg) 60 60 60 60 60 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 :: ite: ate: 4,321 5,413 :: ite: ate: ate: ite: ate:	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi ppi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi psi psi	
C	(MD ft) 13,4 13,5 13,5 13,5 Date Date Top (MD ft) 13,7 13,7 13,7 13,7 Date	(1440 3900 3440 2900 2900 Perf. 5 00pen 1440 0090 Perf. 5 00pen	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF SPF SPF SPF SPF SPF SPF SPF SPF	12 12 10 10 ation ing Shots 12 12 12 10 10 ation ing	Phasing (deg) 600 600 600 600 600 600 600 60	4,382 8,882 5 tte: ate: 4,321 5,413 5,413 5 tte: ate: 5	239,800 psi psi 8,900 8,078 80.9 72.1 65,740 240,160 psi psi 8,891 7,742 80.9 79.8	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi bpm Ibm / Ibm /	
C	(MD ft) 13,4 13,5 13,5 13,5 Date Top (MD ft) 13,7 1	(440 390 290 290 Perf. 5 Open E (240 190 140 090 Perf. 5 Open	MD ft)	SPF SPF 3 4 3 4 4 5 4 3 4 4 2 4 5 6 mm	12 12 10 10 ation shots 12 12 12 10 10 10 ation	Phasing (deg) 60 60 60 60 60 60 60 60 60 80 80 80 80 80 80 80 80 80 80 80 80 80	4,382 8,882 5 tte: ate: 4,321 5,413 5,413 5 tte: ate: 5	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi ppi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi psi psi	
C	(MD ft) 13,4 13,5 13,5 13,5 13,5 Date Top (MD ft) 13,2 13,7 1	(440 390 340 290 Perf. 5 Open E (240 190 140 D90 Perf. 5 Open E (240 190 140 D90 E (240 E (2 ((2 ((2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 () (2)) (2 () () () () () () () () () ()	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF SPF SPF	12 12 10 10 ation ing Shots 12 12 12 12 10 10 10 ation ing Shots	Phasing (deg) 600 600 600 600 600 600 600 810 810 810 810 810 810 810 8	4,382 8,882 : : : : : : : : : : : : : : : : : :	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi bpm Ibm / Ibm /	
C	(MD ft) 13,4 13,5 13,5 13,5 13,5 Date Top (MD ft) 13,2 13,7 1	(440 390 340 290 Perf. 5 Open E (440 190 140 D90 Perf. 5 Open E (440 190 140 D90 Perf. 5 Open	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF SPF SPF SPF	12 12 10 10 ation ing Shots 12 12 12 10 10 10 10 ation 10 10 20 10 10 10 10 10 10 10 10 10 10 10 10 10	Phasing (deg) 600 600 600 600 600 600 600 810 810 810 810 810 810 810 8	4,382 8,882 : : : tte: ate: 	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi bpm Ibm / Ibm /	
C	(MD ft) 13,4 13,5 13,5 13,5 13,5 Date Top (MD ft) 13,7 1	(440 390 340 290 Perf. 5 Open E (140 190 140 190 Perf. 5 Open E (140 190 140 190 Perf. 5 Open	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF SPF SPF SPF SPF SPF	12 12 10 10 ation ing Shots 12 12 10 10 10 10 10 10 10 10 10 10 10 10 10	Phasing (deg) 60 60 60 60 60 60 60 60 60 81 81 81 81 81 81 81 81 81 81	4,382 8,882 : : : : tte: ate: 	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi bpm Ibm / Ibm /	
C	(MD ft) 13,4 13,5 13,5 13,5 13,5 Date Top (MD ft) 13,2 13,7 1	(440 390 340 290 Perf. 5 Open E (140 190 140 190 Perf. 5 Open E (140 190 140 190 Perf. 5 Open	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF SPF SPF SPF SPF	12 12 10 10 ation ing Shots 12 12 12 10 10 10 10 ation 10 10 20 10 10 10 10 10 10 10 10 10 10 10 10 10	Phasing (deg) 60 60 60 60 60 60 60 60 60 81 81 81 81 81 81 81 81 81 81	4,382 8,882 : : : : tte: ate: 	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi bpm Ibm / Ibm /	
C	(MD ft) 13,4 13,5 13,5 13,5 13,5 Date Top (MD ft) 13,7 1	(440 390 340 290 Perf. 5 Open E (240 190 Perf. 5 Open E (240 0 90 Perf. 5 Open	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF SPF SPF SPF SPF SPF SPF SPF SPF	12 12 10 10 ation ing Shots 12 12 10 10 10 10 10 10 10 10 10 10 10 10 10	Phasing (deg) 60	4,382 8,882 : : : tte: ate: 4,321 5,413 : : : : : : : : : : : : :	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi bpm Ibm / Ibm /	
C	(MD ft) 13,4 13,5 13,5 13,5 13,5 Date Top (MD ft) 13,7 1	(440 390 340 290 Perf. 5 Open E (240 190 Perf. 5 Open E (240 0 90 Perf. 5 Open	MD ft) 13,443 13,393 13,342 13,292 Status 3 3 3 3 3 3 3 3 3 3 3 3 3	SPF SPF SPF SPF SPF SPF SPF SPF SPF SPF	12 12 10 10 ation ing Shots 12 12 10 10 10 ation ing Shots 12 12 10 10 10 10 10 10 10 10 10 10 10 10 10	Phasing (deg) 60	4,382 8,882 : : : tte: ate: 4,321 5,413 : : : : : : : : : : : : :	239,800 239,800 psi 8,900 8,078 80.9 72.1 65,740 240,160 psi 8,891 7,742 80.9 79.8 64,000	Ibm / Interval Comments Comments psi psi bpm bpm Ibm / Ibm / Ibm / Interval Comments Comments psi psi psi bpm Ibm / Ibm /	

	st Upda							
0	Date	Perf. Status	Form				Comments	
	C	Open	3rd Bone Sp	ring	Stage 13 Initial WHP: 4,311	nei		
					Breakdown: 7,769	psi psi		
					Max Pressure:	8,956	psi	
					Avg. Pressure:	7,890	psi	
				8.1	Max Slurry Rate:	82.1	bpm	
					Avg. Slurry Rate:	75.1	bpm	
					40/70 ProLite:	65,560	lbm /	
		-			20/40 ProLite:	243,070	lbm /	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)		Interval Comments	
-	12,84		343 4	12	60			
_	12,79			12	60			
_								
	12,74			10	60			
	12,69	90 12,0	592 4	10	60			
	Date	Perf. Status	Form	ation			Comments	
	0	Open	3rd Bone Sp	ring	Stage 14			
					Initial WHP: 4,394	psi		
					Breakdown: 5,999	psi		
					Max Pressure:	9,248	psi	
					Avg. Pressure: Max Slurry Rate:	7,200 81.1	psi bpm	
					Avg. Slurry Rate:	78.9	bpm	
					40/70 ProLite:	65,480	lbm /	
					20/40 ProLite:	241,500	lbm /	
-	Тор	Bottom	SPF	Shots	Phasing (deg)		Interval Comments	
	(MD ft)	(MD ft)						
	12,64	40 12,	643 4	12	60			
_	12,59	90 12,	593 4	12	60			
-	12,54			10				
-	12,49			10	60			
_					00			
	Date	Perf. Status	Form				Comments	
	C	Open	3rd Bone Sp	ring	Stage 15			
					Initial WHP: 4,253	psi		
					Breakdown: 6,325	psi		
1					Max Pressure: Avg. Pressure:	8,392 7,101	psi psi	
					Max Slurry Rate:	80.6	bpm	
					Avg. Slurry Rate:	79.9	bpm	
					40/70 ProLite:	65,486	lbm /	
					20/40 ProLite:	246,420	lbm /	
	Тор	Bottom	SPF	Shots	Phasing (deg)		Interval Comments	
	(MD ft)	(MD ft)						
	12,44			12	60			
	12,39							
-		90 12,	393 4	12	60			
-	12,34			12 10	60 60			
	A	40 12,	342 4	10	60			
1	12,28	40 12, 80 12,	342 4 282 4	10 10			2	
	12,28 Date	40 12, 80 12, Perf. Status	342 4 282 4 Form	10 10 ation	60 60		Comments	
	12,28 Date	40 12, 80 12,	342 4 282 4	10 10 ation	60 60 Stage 16		Comments	
	12,28 Date	40 12, 80 12, Perf. Status	342 4 282 4 Form	10 10 ation	60 60 Stage 16 Initial WHP: 4,314	psi	Comments	
	12,28 Date	40 12, 80 12, Perf. Status	342 4 282 4 Form	10 10 ation	60 60 Stage 16	psi psi 9,817	Comments	
	12,28 Date	40 12, 80 12, Perf. Status	342 4 282 4 Form	10 10 ation	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182	psi		
	12,28 Date	40 12, 80 12, Perf. Status	342 4 282 4 Form	10 10 ation	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Max Slury Rate:	psi 9,817 7,178 81.0	psi psi bpm	
	12,28 Date	40 12, 80 12, Perf. Status	342 4 282 4 Form	10 10 ation	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Max Slurry Rate: Avg. Slurry Rate:	psi 9,817 7,178 81.0 75.4	psi psi bpm bpm	
	12,28 Date	40 12, 80 12, Perf. Status	342 4 282 4 Form	10 10 ation	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite:	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm /	
	12,28 Date	40 12, 80 12, Perf. Status Open	342 4 282 4 Srd Bone Sp	10 10 aation	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Max Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite:	psi 9,817 7,178 81.0 75.4	psi psi bpm lbm / lbm /	
	12,28 Date	40 12; 80 12; Perf. Status Dpen	342 4 282 4 Form	10 10 ation	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite:	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm /	
	12,28 Date C	40 12, 30 12, Perf. Status Open Bottom (MD ft)	342 4 282 4 3rd Bone Sp SPF	10 10 ation ring Shots	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Max Slurry Rate: Avg. Slurry Rate: 4070 ProLite: 20/40 ProLite: Phasing (deg)	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm / lbm /	
	12,28 Date C Top (MD ft) 12,24	40 12, 80 12, Perf. Status Open Bottom (MD ft) 40 12,	342 4 282 4 3rd Bone Sp SPF 243 4	10 10 ation ring Shots	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: Avg. Slurry Rate: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm / lbm /	
	12,28 Date C Top (MD ft) 12,24 12,17	40 12, 80 12, Perf. Status Open Bottom (MD ft) 40 12, 75 12,	342 4 282 4 3rd Bone Sp 3rd Bone Sp 243 4 178 4	6 10 10 ation ring Shots 6 12 6 12	60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Max Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm / lbm /	
	12,28 Date C Top (MD ft) 12,24 12,17 12,13	Bottom (MD ft) 40 12, Berf. Status Open	342 4 282 4 3rd Bone Sp 243 4 132 4	10 10 10 ation ring Shots 12 12 10	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm / lbm /	
	12,28 Date C Top (MD ft) 12,24 12,17	Bottom (MD ft) 40 12, Berf. Status Open	342 4 282 4 3rd Bone Sp 243 4 132 4	6 10 10 ation ring Shots 6 12 6 12	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm / lbm /	
	12,28 Date C Top (MD ft) 12,24 12,17 12,13	Bottom (MD ft) 40 12, Berf. Status Open	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4	10 10 10 ation ring Shots 12 12 10	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm / lbm /	
	12,26 Date	Bottom (MD ft) 40 12, Perf. Status	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60	psi 9,817 7,178 81.0 75.4 63,000	psi psi bpm lbm / lbm / Interval Comments	
	12,26 Date	Bottom (MD ft) 40 12, Berf. Status Open	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Max Slury Rate: Avg. Slury Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60	psi 9,817 7,178 81.0 75.4 63,000 245,750	psi psi bpm lbm / lbm / Interval Comments	
	12,26 Date	Bottom (MD ft) 40 12, Perf. Status	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 5tage 17 Initial WHP: 4,161 Breakdown: 7,757	psi 9,817 7,178 81.0 75.4 63,000 245,750	psi psi bpm lbm / lbm / Interval Comments	
	12,26 Date	Bottom (MD ft) 40 12, Perf. Status	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Pressure: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 5tage 17 Initial WHP: 4,161 Breakdown: 7,757 Max Pressure8,261	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750	psi psi bpm bpm lbm / lbm / Interval Comments	
	12,26 Date	Bottom (MD ft) 40 12, Perf. Status	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 5tage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 	psi psi bpm bpm lbm / Interval Comments Comments	
	12,26 Date	Bottom (MD ft) 40 12, Perf. Status	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 	psi psi bpm lbm / lbm / Interval Comments Comments	
	12,26 Date	Bottom (MD ft) 40 12, Perf. Status	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slury Rate: 40/70 ProLite: Phasing (deg) 60 7.757 Max Pressure8,261 Avg. Slury Rate: Avg. Slury Rate:	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi psi psi 7,349 81.1 76.4	psi psi bpm bpm lbm / lbm / Interval Comments Comments	
	12,26 Date	Bottom (MD ft) 40 12, Perf. Status	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 4070 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments	
	12,26 Date	40 12, 80 12, Perf. Status Open (MD ft) 40 12, 75 12, 30 12, 65 12, Perf. Status Open	342 4 282 4 3rd Bone Sp 3rd Bone Sp 243 4 132 4 267 4 132 4 267 4 132 4 267 4	10 10 10 ation ring Shots 12 12 10 10 ation ring ring	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi psi psi 7,349 81.1 76.4	psi psi bpm lbm / lbm / Interval Comments Comments Comments	· · · · · · · · · · · · · · · · · · ·
	12,25 Date	Bottom (MD ft) 40 12, Perf. Status Open 40 12, Perf. Status 75 12, 30 12, 65 12, Perf. Status Open	342 4 282 4 3rd Bone Sp 243 4 178 4 132 4 067 4	10 10 10 10 10 10 11 12 12 12 10 10 10 10 ation	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 4070 ProLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments	
	12,28 Date C (MD ft) 12,24 12,17 12,13 12,06 Date C Top (MD ft)	40 12, 80 12, Perf. Status Dpen (MD ft) 40 12, 75 12, 30 12, 65 12, Perf. Status Dpen Bottom (MD ft)	342 4 282 4 3rd Bone Sp 3rd Bone Sp 243 4 178 4 132 4 067 4 132 4 067 4 3rd Bone Sp 3rd Bone Sp	Shots Shots Shots Shots Shots Shots Shots	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 8,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60 7.757 Max Pressure: Avg. Slurry Rate: Avg. Slurry Rate: Avg. Slurry Rate:	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments Comments	
	12,28 Date C (MD ft) 12,24 12,17 12,13 12,06 Date C Top (MD ft) 12,03	Bottom (MD ft) 40 12, Perf. Status Open 65 12, 75 12, 75 12, 65 12, 75 12, 65 12, 65 12, 65 12, 0 12, 0 12, 0 12, 0 12, 0 12, 0 12,	342 4 282 4 3rd Bone Sp 3rd Bone Sp 243 4 178 4 132 4 267 4 3rd Bone Sp 3rd Bone Sp 3rd Bone Sp	10 10 10 ation ring Shots 12 10 10 10 10 ation ring Shots 4 12 Shots 4 12	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 9,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: AV070 ProLite: 20/40 ProLite: Phasing (deg) 60 60 60 60 60 60 60 60 60 60 60 60 800 60 60 60 60 60 7.757 Max Pressure: Max Slurry Rate: Avg. Slurry Rate: Avg. OroLite: 20/40 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments Comments	
	12,28 Date C Top (MD ft) 12,24 12,17 12,13 12,06 Date C Top (MD ft) 12,03 11,97	Bottom (MD ft) 40 12, Perf. Status Open 40 40 12, Perf. Status 0 40 12, 40 12, 50 12, 65 12, 65 12, 65 12, Open Bottom (MD ft) 30 12, 70	342 4 282 4 282 4 3rd Bone Sp 4 243 4 178 4 132 4 067 4 SPF 3rd Bone Sp 3rd Bone Sp 5 3rd Bone Sp 3 4 3 73 4	10 10 10 ation ring Shots 12 10 10 10 10 10 ation ring Shots 4 12 12 12	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 9,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: AV070 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments Comments	
	12,28 Date C Top (MD ft) 12,24 12,17 12,13 12,06 Date C Date C Top (MD ft) 12,03 11,97 11,92	Bottom (MD ft) 40 12, Perf. Status Open 40 12, Perf. Status 0 12, 40 12, 40 12, 50 12, 65 12, 65 12, 65 12, 0 12, 0 12, 0 12, 0 12, 0 12, 0 12, 0 12, 11, 25 11,	342 4 282 4 282 4 3rd Bone Sp 4 3rd Bone Sp 4 132 4 067 4 SPF 4 3rd Bone Sp 4 033 4 973 4	10 10 10 ation ring Shots 12 10 10 10 10 10 10 ation ring Shots 12 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 9,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: AV070 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments Comments	
	12,28 Date C Top (MD ft) 12,24 12,17 12,13 12,06 Date C Top (MD ft) 12,03 11,97	Bottom (MD ft) 40 12, Perf. Status Open 40 12, Perf. Status 0 12, 40 12, 40 12, 50 12, 65 12, 65 12, 65 12, 0 12, 0 12, 0 12, 0 12, 0 12, 0 12, 0 12, 11, 25 11,	342 4 282 4 282 4 3rd Bone Sp 4 3rd Bone Sp 4 132 4 067 4 SPF 4 3rd Bone Sp 4 033 4 973 4	10 10 10 ation ring Shots 12 10 10 10 10 10 ation ring Shots 4 12 12 12	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 9,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: Avg. Slurry Rate: 40/70 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments Comments	
	12,28 Date C Top (MD ft) 12,24 12,17 12,13 12,06 Date C Date C Top (MD ft) 12,03 11,97 11,92	Bottom (MD ft) 40 12, Perf. Status Open 40 12, Perf. Status 0 12, 40 12, 40 12, 50 12, 65 12, 65 12, 65 12, 0 12, 0 12, 0 12, 0 12, 0 12, 0 12, 0 12, 11, 25 11,	342 4 282 4 282 4 3rd Bone Sp 4 3rd Bone Sp 4 132 4 132 4 067 4 SPF 4 3rd Bone Sp 5 3rd Bone Sp 4 067 4 3rd Bone Sp 4 3rd Bone S	10 10 10 ation ring Shots 12 10 10 10 10 10 10 ation ring Shots 12 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1	60 60 60 Stage 16 Initial WHP: 4,314 Breakdown: 9,182 Max Pressure: Avg. Pressure: Avg. Slurry Rate: AV070 ProLite: 20/40 ProLite: Phasing (deg) 60	psi 9,817 7,178 81.0 75.4 63,000 245,750 245,750 psi psi psi 7,349 81.1 76.4 65,480	psi psi bpm lbm / lbm / Interval Comments Comments Comments	

			6/20	16 06:2					-
C Date	_	rf. Status	20	Forma	1103	Stage 19			Comments
	Open		310	3rd Bone Spring		Stage 18 Initial WHP: Breakdown: Max Pressure Avg. Pressure Max Slurry Ra Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite:	psi psi bpm lbm / lbm /		
Top (MD ft)		Bottom (MD ft)		SPF	Shots	Phasing (deg)			Interval Comments
11	,825	1	1,828	4	12				
	,775		1,778 1,727	4	12				
	,675		1,677	4	10	1 miles			
C Date		rf. Status		Form	ation				Comments
	Oper	1	310	d Bone Spr	ing	Stage 19 Initial WHP: Breakdown: Max Pressure Avg. Pressure Max Slurry Ra Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite:	9,099 p : 57 : 77 :te: 8 ate: 77	osi 9,099 7,926 80.9 73.4 \$5,250 234,680	psi psi bpm bpm Ibm / Ibm /
Top (MD ft)		Bottom (MD ft)		SPF	Shots	Phasing (deg)			Interval Comments
	,625 ,575		1,628 1,578	4	12				
	,575		1,578	4	12				
	,475		1,477	4	10				
C Date	Pe	rf. Status		Form t Bone Spr		Stage 20			Comments
						Initial WHP: Breakdown: Max Pressure Avg. Pressure Max Slurry Ra Avg. Slurry Ra 40/70 ProLite: 20/40 ProLite:	7,775 : :te: ate:	osi 5,517 25.7 25.2 750 24,000	psi psi bpm bpm Ibm / Ibm /
Top (MD ft)		Bottom (MD ft)		SPF	Shots	Phasing (deg)			Interval Comments
Formation To	on Sur	nmarv							
Format		-	Top(T	VD ft)				Com	nments
Rustler	_			1,869					
Top of Salt				2,447					· · · · · · · · · · · · · · · · · · ·
Castile				3,881					
Base of Salt				4,280					
Yates				4,443					
Lamar Lime Delaware			_	5,739 5,834					
Cherry Canyo	n			6,052					
Brushy Canyo	on			7,409					
Lower Brushy				8,458					
Bone Spring (Avalon Shale		a		8,718 8,792					
Avalon				8,793					
Base Avalon				8,998					
2nd Avalon				9,253					
1st Bone Spri 2nd Bone Spr	-			9,704 10,281		the second second second second			
3rd Bone Spr	-			11,103					
Well History Date	Summ	ary					Comme	nts	
	(24-0 h	rs) Finish	cleani	ng pits. R/	D Top Drive	& solid control e			06:00 hrs MST 9/21/14. Location is very sloppy.
						ad. Install 10K			d to 10000 psi with test plug. Move in 10 frac tanks & 2 acid
					-	-			ks. Spot 4 light towers & 2 trash trailers.
	pit & P	oseidon ta	nk.						tanks with Fresh Water. Lay water transfer line from frac
	motor Counte frac are	on 2" coil te er read 14, e on location	o 14,7 989'. on.	08' CTM. PBTD 15,4	Mill for 20 mir 78'. Decision	nutes w/ no foot n made to repla	age gain. Disp ce electronic c	blace hole w ounter & att	h 11,116'. R/D wireline. R/U Coil Tubing. RIH w/ mill & // nano surfactant fluid. Install mechanical counter. POH. empt to drill out obstruction @ 14,708' CTM. All services for
	Sweep	oil clean &	& pum	p 1000 gal	s 15% acid.	r 50'. Continue POH w/ coil. Do cannibalized. "r	epth indicator s	09'. Drill ou till not work	It cement from 15209' to 15,445'. Could not get deeper. ing property. W/O replacement for depth indicator.

 weier. Casing string presched. Prop to locate lask, PLN NCD bols on Call Maing. RH to 150 from unifies. Tail tool string. Continue In Note 1: 1000. The string on the casing bold presched. Networks of the casing bold presched. Reset paids of the casing bold presched. Reset paids of the casing bold presched. Reset paids of the casing bold presched base between 11.800 ft. 10.801. Decision made to abort fraz. PCH w/ Coll RD NCS bolds. RD Nator Trace of the casing bold presched base between 11.800 ft. 10.801. Decision made to abort fraz. PCH w/ Coll RD NCS bolds. RD Nator Trace of the casing bold presched base between 11.800 ft. 10.801. Decision made to abort fraz. PCH w/ Coll RD NCS bolds. RD Nator Trace of the casing bortogic aborts on 11.800. Classing Pheneson 2000, Ellistic bare, Frank RH PU 2776" work string to 11.802". Whereased by NCS. Displace hole w/ Coll RB NM PU API. String RH PU 2776" work string to 11.802". The string with frain water. Run Down Nole date casing brend water abort fraz. PCH with abort fraz. PCH 4: Store With a Coll RE DPW. Classing Pheneson 2000, Ellistic bare, Frank RH PU 2776" work string to 11.502". Wherease bits W-CS. Displace hole w/ Coll RB NM PU API. Store With 2000 Store With 2000. Classing Water Store With 2000 Store With	Last Up	uated: 5/20/2016 06.24 AM
 Weiter, Cassing streng prescheder. Prop to locate sails, PLM NCB tools on Coll Likeling. RHs to 169 from anthese. Text boot string. Continues in Note is 100000000000000000000000000000000000		
 Di Di Kirga Valas AVU Di K DOPE. Talley vork string. BHPU 331 js 2-78° tubing from pipe mass. EOT 19,44°. Secure Vell & SDPN. VC: field string Vell Pipe. Secure Vell & SDPN. VC: Secure Vell & SDPN. VC: Secure Vell & SDPN. VC: Calling Pressure 240 pt. Blied to smit. Finina RH PU 3274° vork string to 11.66°. VMINessed by VCS. Displace hole v600 bEAV, POH 48 displace hole v600 bEAV, POH 40 canners, RD v600 bEAV, POH 40 Canners,	10/18/2014	10530'. Pressure tested packer & casing to 8500 psi. OK. Set packer @ 11,520'. Test to 8200 psi. Lost 200 psi in 8 minutes. Reset packer @ 11,605' tested casing to 6700 psi. Pump rate 1.5 bpm. Leaking. Reset packer @ 11,620 psi. Tested packer to 5400 psi. Pump rate 1.5 BPM. Leaking. Shut in pressure 3800 psi. Located leak between 11,560' & 11,620'. Decision made to abort frac. POH w/ coil R/D NCS tools. R/D
Edit bechnicken will be on location this AM to vitimes going through service to 11.807. Moread Vitimes and Xop Billing Control of the AM to vitimes going through a location of the XD. Displace hole will be an location this AM to vitimes going through a location of the XD. Secure will a SDPN. Secu	10/22/2014	MIRU WSU. Move in Rack 397 jts of 2-7/8" L-80 Work String.
 stands to 84:4. Security Well & SDFVKE. SD22014 RUL-Verlage B Reverse user, Run ED Coronalison log, Fill Hw Lubing to 11.564°, Disarch Lubing with fresh water. Run Down hole video camera from 1.004 to 11.564°, Disarch 2014 PC HUL-Disarch 20	10/23/2014	
1.80/t b 11.56/t Inspected alevele # 30, Video did not see casing brench or alevele Make. Water Clarify was an issue. POH w/ canners. RD wereins. POH uD Tubing, ND GPRE. Install frax water w/r right cap. Secure well & SDFN. 10220214 RD VSDC, Raak Vakano, Sarry, 2.7/P 7.9/P 101, Pokay. Sec. May, NJ 104, Rours, WJ 105, BDPE. Test BDP, Falled @ 8500 pal. WD BDP. 11712014 Risk Nather, 2.7/P 7.9/P 101, Pokay. Sec. May, NJ 104, Rours, WJ 105, BDPE. Test BDP, Falled @ 8500 pal. WD BDP. 11712014 Risk Nather, 2.7/P 7.9/P 101, Pokay. Sec. May, NJ 104, Rours, WJ 105, BDPE. Test BDP, Falled @ 8500 pal. WD BDP. 11712014 Risk Nather, 2.7/P 7.9/P 104, Pokay. Sec. May, NJ 104, Rours, WJ 104, BDPE. Test BDP, Falled @ 8500 pal. WD BDP. 11712014 Risk Nather, 2.7/P 7.9/P 104, Pokay. Sec. May, NJ 104, Rours, MJ 104, BDPE. Test BDP. Test Angel ADP. 11712014 Risk Nather, 2.7/P 7.9/P 104, Pokay. Sec. May, NJ 104, Rours, MJ 104, BDPE. Test BDP. Test Angel ADP. 11712014 Risk Nather, 2.7/P 7.9/P 104, Pokay. Sec. May, NJ 104, Rours, MJ 1		stands to 8614'. Secure Well & SDFWE.
 BORDED I, BOL WELL, Class Location. Shut down wito orders. BOL WELL, Daak Veck Smyth, David Step P. 1997. 499 - F10 He Jubing, NID Frac Valve, NU 10K BOPE. Test BOP. Failed @ 8500 pai. ND BOP. Replace ring gasker. NU 80.P. Test 5000 pai. Loc 3000 pail. Loc 3000 pail. Sci 2000 pai		11,604' to 11,594'. Inspected sleeve # 39. Video did not see casing breech or sleeve leak. Water Clarity was an issue. POH w/ camera. R/D wireline. Secure well & SDFN.
 111702101 Rad, Work Sting, 2-787 728 P-110 PH-E table, NDF Fac Vales, NU TOK BOPE. Test BOO, Failed @ 8500 pai. ND BOP. Replace on gravite. IV. 300 Ph. Test 6000 pp. 1289. Foot Wells & SDFN. 111720101 Finish In Note pt Lubing to 8759. RU viewline. Run correlation log, ECT @ 9759. RD viewline. Secura well & SDFN. 11172011 State of the state o		
 11/12014 Finish Finde ptu balong to 8759°, RU viewline. Run correlation log. EDT @ 8759°, RD viewline. Secure well & SDFN. 11/12014 Birl with Tis secure paster is 11.257. Problem with a balong. These targets on the secure well & SDFN. 11/12014 Test camp to 4000 pti. Held 4000 pti. Held 400 pti. Hel		R/U WSU. Rack Work String. 2-7/8" 7.9# P-110 PH-6 tubing. N/D Frac Valve. N/U 10K BOPE. Test BOP. Failed @ 8500 psi. N/D BOP.
 oblgation, WUO Bitt truck, Pressure test annulate to 4000 pp. list 200 piin 10 1570°. Test cables to Mode North, Med 4000 pp. list 200 piin 10 1570°. Secure well & SDPN, North North Stever 40 (to 11.44.447) Hist Stever 30 (to 11.447) Hist Stever 30 (t	1/12/2014	
 pai. 5 min 4083 pai. 10 min 3945 pai. 15 min 3853 pai. 5 min 3853 pai. 16 min 3968 pai. 16 min 3968 pai. 5 min 3968 pai. 1 min 39	11/13/2014	Test casing to 4000 psi. Held 4000 psi. POH w/ packer to 10,575'. Secure well & SDFN. Note: Sleeve 40 @ 11,444.84' TM & Sleeve 39 @
packer set for 1/12 ms. Failed to work torque to packer. Free spinning tubing. Secure well & SDFN. 11/172014 POH wit 751 givs ork sing to 10,000. Attempt to set RTS too. Failed. Shut down due to ice accumulation on rig. Secure well & SDFN. 11/172014 POH wit RTS tool. UD packer. Packer had lost top nubber. The with to 8100°. Secure well & SDFN. 11/172014 Foliation in bola with to 1568 "TM. Check hading tably. Claws, Tag 8tb below Float colar & 30' below ahoe. Circulate hole claen @ 15.666" TM. RIC pumping enginement. POH with & tabung Halv (RTS 106. Set Packer & Tg 8 Bb below Float colar & 30' below packer to 4000 psl. Lost 500 psi in 5 minutes. Test above packer to 4000 psl. Lost 300 psi in 5 minutes. Secure well & SDFN. Will Retest using pump truck this am. Pump trucks not available for Wednessing. RILW RTTS tool. Set Packer @ 15.460". TkmU revense unit. Test below packer to 4000 psl. Lost 500 psi in 5 minutes. Test above packer to 4000 psl. Lost 300 psi in 5 minutes. Secure well & SDFN. Will Retest using pump truck this am. Pump trucks not available for Wednessing. Bip 61 cst annuulus above packer are @ 15.460". TkmU revense unit. Test below packer to 4000 psl. Lost 500 psi. 5 min 4350	11/14/2014	ISIP 7121 psi. 5 min 3968 psi. 10 min 3968 psi. 15 min 3968 psi. R/D Pmp truck. Release RTTS tool @ 11,625'. POH w/ Packer. Secure well &
 11/17/2014 POH wY RTTS tool. LD packer. Packer had lost top nubber. THe with to 6100°. Secure well & SDFN. 11/18/2014 Finish in hole with to 15.566 TM. Check tubing taby. Okay. Tag 88 below Float colar & 39 below shoe. Circulate hole clean @ 15.566 TM. RD register with 8 bring. RH w/RTTS tool. Set Packer @ 15.460 TM. RD reverse unit. Test below packer to 4000 psi. Lost 500 psi in 5 min 4035 psi in 5 min 415 psi in 10 min 403 psi in 5 min 4035 psi in 5 min 415 psi in 10 min 403 psi in 5 min 4035 psi in 5 min 4035	11/15/2014	
 1/18/2014 Finish in hole with to 15,86° TM. Check tubing taby, Okay. Tap 88 below Float collar & 39 below shoe. Circulate hole dean @ 15,56° TM. RU purport and the provide of the term of te	11/16/2014	POH w/ 175 jts work string to 10,000'. Attempt to set RTTS tool. Failed. Shut down due to ice accumulation on rig. Secure well & SDFN.
pumping equipment. POH w bits during. Securi veill & SDFN. 11/19/2014 Finish POH w bit & during. THIW xRTTS tool. Set Packer & 15.4607. Pump 11 bits total fluid @ 4.6 BM 7000 pail. SIP 4569 pail. S min 451 pail. 10 min 403 pail. S min 4058 pail. Test annual a above packer as @ 15.4607. Pump 11 bits total fluid @ 4.6 BM 7000 pail. SIP 4569 pail. S min 4058 pail. Test annual a above packer as @ 15.4607. Pump 11 bits total fluid @ 4.6 BM 7000 pail. SIP 4569 pail. S min 4058 pail. S min 4058 pail. Test annual a above packer as @ 15.4607. Pump 11 bits total fluid @ 4.6 BM 7000 pail. SiP 4569 pail. S min 4058 pail. Test annual a above packer as @ 15.4607. Pump 11 bits total min 4000 pail. SiP 4569 pail. S min 4058 pail. Test annual above packer as @ 15.4607. Pump 11 bits total minet: 11/2/2014 RIH w copene needed tubing to 11.609 ft. RUH allburton. Establish injection rate wiret @ 4.7 BPM @ 5000 pail. Mised Well Lock in batch miker: 11/2/2014 RIH wire open ended tubing to 11.609 ft. RUH allburton. Establish injection rate wiret @ 4.7 BPM @ 5000 pail. Mised Well Lock in batch miker: 11/2/2014 RIH wire open ended tubing to 11.600 ft. RUH allburton. Establish injection rate wiret @ 4.7 BPM @ 5000 pail. S min 4000 pail. D wiret @ 1.0 K min 4000 pail. S min 4000 pail. D wire		
 minutes. Test above packer to 4000 psi. Lost 350 psi in 5 minutes. Secure well & SDFN. Will Retest using pump truck this am. Pump trucks not available for Wetnesday. If202014 RU pump truck. Test through tubing below packers set @ 15,460°. Pump 11 bibs total fluid @ 4.6 BPM 7000 psi. ISIP 46569 psi. 5 min 4035 psi. 15 min 4035 psi. 7 mJ Pump truck. Release packer & PCH. LD 3.5 °Cr & R RTIS packer. Secure Well & SDFN. If220214 RIH vor composite pluid por 27/8* tubing. Set pluid @ 11.1563.°C Tap plug. Oxiv. Sleeve @ 11.4500°. PcH wis setting total. Secure Well & SDFN. If222214 RIH vor composite pluid por 27/8* tubing. Set pluid @ 11.1563.°C Tap plug. Oxiv. Sleeve Well & SDFN. If222214 Well Shut in tot H-Italibutorion. Well cock cure. If222214 Well Shut in tot H-Italibutorion Well Lock cure. If222214 Well Shut in tot H-Italibutorion Well Lock cure. If225214 G SS psi - 5300. EOT @ 10.1587.Pail 100k on tbg to pull free. RIH wifbg and tag at 10.190°. POH writbg, last 44 jts have welliock on outside of tbg. [last 44 jts have welliock on outside of tbg. [last 44 jts have welliock and soft Well Lock, pictures sent to Midland. Samples also taken on location. Secure Well. Strut down for Thankagiving. If226214 Tbg and cag psi = 0. Enrish POH wr66 jts 2-7/8° tbg. Lay down 40 jts, last 20 jts plugged, had Well Lock from 10.750 to 10.970. Pump 400 bbl to circ celan. POH well Cott, and soft Well Lock, from10.279 to 10.750. Drill out hard Well Lock from 10.750 to 10.970. Pump 400 bbl to bit ocir celan. POH well @ 10.283. Secure Well. SDFN. If220214 Tbg and cag psi = 0. Enrish POH wr66 jts 2-7/8° tbg. Lay down 40 jts. Jts 11.127. Secure Well SDFN. If220214 Stag and tbg psi - 0.580 pail secure Well. SDFN. If220214 Stag and tbg psi - 0.580 pail secure Well. SDFN. If		pumping equipment. POH w/ 66 stds tubing. Secure well & SDFN.
 min 4037 paj. 15 min 3968 påj. Test annulus above packer set @ 15,460°. Establish higection rate of 7 BPM @ 7000 paj. 51IP 6000 paj. 5 min 4038 etc. I1212014 RIH vi composite plug on 2-76° tubing. Set plug @ 11,38°. Tag plug. Okay. Steeve @ 11,590°. POH wisetting tool. Secure Vell & SDFN. I1222014 RIH vi composite plug on 2-76° tubing. Set plug @ 11,38°. Tag plug. Okay. Steeve @ 11,590°. POH wisetting tool. Secure Vell & SDFN. I1222014 RIH vi composite plug on 2-76° tubing. Set plug @ 11,38°. Tag plug. Okay. Steeve @ 11,590°. POH wisetting tool. Secure Vell & SDFN. I1222014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Shut in to let Haliburton Well Lock cure. I12242014 Well Cock and soft Well Lock squeeze. I12242014 Tog and cag pai - 0. Finish POH wil6 js 2-7/8° tip, Lay down 40 jis, last 20 jis plugged. had Well Lock on outside of tbg. RIH wiPCD bit and 2-7/8° tbg. cag and two pai - 0. Replace stripper rubber. Drill out HES Well Lock from 10,279 to 10,750. Drill out hard Well Lock from 10,750 to 10,970. Pump 400 bit or cicaan. POH wiEO jis 3.8. Secure Well. SDFN. I1222014 Sut down for Thanksgiving. I12282014 Cag and tbg pai - 0. Replace stripper rubber. Drill out HES Well Lock from 10,279 to 10,750. Drill out hard Well Lock from 10,750 to 10,970. Pump 400 bit or cicaan. POH wiEO jis 3.8. Secure Well. SDFN. I12282014 Cag and tbg pai - 0. Replace stripper rubber. Drill out HES Well Lock from 10,279 to 10,750. Drill out hard Well Lock from 10,7	11/19/2014	minutes. Test above packer to 4000 psi. Lost 350 psi in 5 minutes. Secure well & SDFN. Will Retest using pump truck this am. Pump trucks not
 11722014 FilH wr öpen ended tubing to 11,609 f. RU Hallburton. Establish hijection rate w/ water @ 4.7 BWd 5000 psi. Mixed Well Lock In batch mixer Spot 20 bits find across leak area. Pull to 10,158 f. Circ Mutual Sohven through tubing to clean out residue. Closed BOPE. Pressure up to 8500 psi slowly pushing ± 12.25 bits well lock fluid out leak. Trap Pressure. RD Hallburton. Secure well & SDFN. 11722014 Well Shut in to let Hallburton Well Lock cure. 117252014 CSC pai - 6300. EOT @ 10,168: Pull 100k on the to pull free. RH witbg and tag at 10,190. POH witbg, last 44 jis have wellick on outside of tbg, last 24 jis tbg plugged. Lay down last 24 jis. RH wit-56* bit and tbg to 9062. Start increasing points on weight Indicator. POH to 8900. Secure Well SDFN. 11262014 Tgg and csg pai - 0. Finish POH wit6 jis 2-7/8* tbg. Lay down 40 jis. last 20 jis plugged, had Well Lock no outside of tbg. RH w/PCD bit and 2-7/8* tbg, circ clean. Recovered hard Well Lock and soft Well Lock, pictures sent to Midland. Samples also taken on location. Secure Well. Shut down for Thankglying Holiday. 11272014 Stud down for Thanksgiving. 11282014 Csg and tbg pai - 0. Replace stipper rubber. Drill out HES Well Lock from 10,790 to 11,156. Pump 350 bit to circ clean. POH wEOT @ 10,338. Secure Well. SDFN. 11282014 Sig and tbg pai - 0. Replace stipper rubber. Drill out HES Well Lock from 10,970, to 11,156. Pump 350 bit to circ clean. POH wEOT @ 11,127. Secure Well. SDFN. 11282014 Sig and tbg pai - 0. Replace stipper rubber. Drill out HES Well Lock from 10,970, to 11,156. Pump 350 bit to circ clean. POH wEOT @ 11,127. Secure Well. SDFN. 11292014 Cudd pump tuck. All lines froze on service unit. Thaw out air lines. Est circ. Pressure uwell & SDFN. Ordered back off writene tuck a large pum tuck for AM antival Monday 12/1/4. 12172014 SU Cudd pump tuck. NII	1/20/2014	min 4037 psi, 15 min 3968 psi. Test annulus above packer set @ 15,460'. Establish injection rate of 7 BPM @ 7000 psi. ISIP 6000 psi, 5 min 4036
 Spot 20 bibs fluid across feak area. P/U to 10,185 ft. Circ Mutual Solvent through tubing To dean out residue. Closed BOPE. Pressure up to 8500 psi dowly pushing ± 12.25 bibs well lock fluid out leak. Trap Pressure. RD Hallburton. Secure well & SDFN. 11/24/2014 Vell Shut in to let Hallburton. Well Lock cure. 11/24/2014 Service unit on standby waiting to drill out well lock squeeze. 11/24/2014 Service unit on standby waiting to drill out well boy pull free. RIH whbg and tag at 10,190'. POH whbg, last 44 jis have welllock on outside of tbg, last 24 jis top pluged. Lay down last 24 jis. RIH wid-5/8° bit and top 0962'. Start increasing points on weight Indicator. POH to 8900'. Secure Well SDFN. 11/28/2014 Tbg and csg pai- 0. Finish POH wr66 jis 2-7/8° tbg. Lay down 40 jis, last 20 jis plugged, had Well Lock on outside of tbg. RIH wirPCD bit and 2-7/8° tbg. cag down did took and soft Well Lock from 10,279 to 10,750. Drill out hard Well Lock from 10,750 to 10.970. Pump 400 bit to circ clean. POH wrEOT @10,393. Becure Well. SDFN. 11/28/2014 Csg and tbg psi - 0. Replace stripper rubber. Drill out HES Well Lock from 10,970, to 11,158'. Pump 350 bit to circ csg. POH wrEOT @11,127'. Secure Well. SDFN. 11/28/2014 SJC A SITP 0 pis. Drill out Well Lock squeeze from 11,158 ft to 11,210'. Started packing off. POH w/2 jis. Circulate 110 bits @ 1.5 BPM 3500 psi. Packed off w 4000 psi. LDB wwell. POH w/1 ji L Tubing stuck @ 11,127'. Secure Well & SDFN. Ordered back off wreite truck & large pum truck for AM arrival Monday 12/11/4. 12/12/2014 RU Cudd pump truck. Air lines froze on service unit. Thaw out air lines. Est circ. Pressure up down tbg. PUI 120,000 on tbg and pressure up on tbg 10,550'. Free @ 10,830'. POH w/N L, RIH wdthg shot. Thraw out air lines. Est circ. Pressure up down sci. @ 11,050'. Oi 0,950'. 10,960'. 10,960'. do 90'. Jo 90'	11/21/2014	RIH w/ composite plug on 2-7/8" tubing. Set plug @ 11,636'. Tag plug. Okay. Sleeve @ 11,590'. POH w/ setting tool. Secure Well & SDFN.
 11/24/2014 Service unit on standby walting to drill out well lock squeeze. 11/25/2014 CSG psi - 6300. ECT @ 10.165.".Pull 100k on tbg to pull free. RIH wid-56" bit and tbg to 9062". Start increasing points on weight indicator. POH to 8900". Secure Well SDFN. 11/25/2014 Dg and csg psi - 0. Finish POH wi66 [ts 2-7/8" tbg, Lay down 40 [ts, last 20 [ts plugged, had Well Lock on outside of tbg, RIH wi7-60 bit and 2-7/8" tbg, circ clean. Recovered hard Well Lock and soft Well Lock, pictures sent to Midland. Samples also taken on location. Secure Well. Shut down for Thanksgiving Holday. 11/27/2014 Shut down for Thanksgiving. 11/27/2014 Shut down for Thanksgiving. 11/28/2014 Csg and tbg psi - 0. Replace stipper rubber. Drill out HES Well Lock from 10,279 to 10.750. Drill out hard Well Lock from 10,750 to 10.970. Pump 400 bit to circ clean. POH wEOT @ 10.938. Secure Well. SDFN. 11/28/2014 Csg and tbg psi - 0. Replace stipper rubber. Drill out HES Well Lock from 10,770. to 11,158". Pump 350 bbl to circ cleag. POH wiEOT @ 11.127. Secure Well. SDFN. 11/29/2014 SICP & SITP 0 psi. Drill out Well Lock squeeze from 11,158 ft to 11,210". Started packing off. POH wi 2 [ts. Circulate 110 bbls @ 1.6 BPM 3500 psi. Di and pressure well. SDFN. 12/1/2014 RU Cudd pump truck. Air lines froze on service unit. Thaw out air lines. Est circ. Pressure up down tbg. Pull 120.000 on tbg and pressure up on tbg to 550 psi. Did not free tbg. RD Cudd pump truck. Ru Polt wift is: Intern 400 bit FW @ 10.046; psi. Did in ot free tbg. RD Cudd. PUM will. SDFN. 12/1/2014 RU Cudd pump truck. Juli and the VML. RH whill, sting aton: Torque tbg (th ng) the spin to clean csg. RD Cudd. POH wigg (th 0,967, 0.900° and th 0,865. Thish POH will. SDFN. 12/2/2014 Csg and tbg psi - 0.1 rish POH will. RH will, sting aton: Torque tbg (th ng) the not free. Sg. RD Cudd. POH wi	11/22/2014	Spot 20 bbls fluid across leak area. P/U to 10,185 ft. Circ Mutual Solvent through tubing to clean out residue. Closed BOPE. Pressure up to 8500
 1125/2014 CSG psi - 6300. EOT @ 10, 85'.Puil 100k on tbg to pull free. RIH w/tbg and tag at 10, 190'. POH w/tbg, last 44 jts have welliock on outside of tbg, last 24 jts tbg plugged. Lay down last 24 jts. RIH w/4-5/8' bit and tbg to 9062'. Start increasing points on weight indicator. POH to 5900'. Secure Well SDFN. 1126/2014 Tbg and csg psi - 0. Finish POH w/66 jts 2-7/8' tbg. Lay down 40 jts, last 20 jts plugged, had Well Lock on outside of tbg. RIH w/PCD bit and 2-7/8'' tbg, circ clean. Recovered hard Well Lock and soft Well Lock, pictures and to Midland. Samples also taken on location. Secure Well. Subt down for Thanksgiving. 1127/2014 Stut down for Thanksgiving. 1128/2014 Csg and tbg psi - 0. Replace stripper rubber. Drill out HES Well Lock from10,279 to 10,750. Drill out hard Well Lock from 10,750 to 10,970. Pump 400 bbl to circ clean. POH w/EOT @110,938. Secure Well. SDFN. 1128/2016 S SITP OpSi. Drill out Well Lock squeeze from 11,156 ft to 11,210'. Started packing off. POH w/ 2 jts. Circulate 110 bbls @ 1.5 BPM 3500 psi. Packed off w/ 4000 pai. L/D avival. POH w/ 1 jt. Tubing stuck @ 11,127'. Secure well & SDFN. Ordered back off wireline truck & large pum truck. RU Cudd pump truck. RU Rudary Wire Line. RIH and free point tbg. Tbg 1000 on tbg and pressure up on tbg to 7500 psi. Did nut Well. RU Cudd pump truck. RU Rudary Wire Line. RIH and free point tog. Tog 100's stuck @ 11,020', 10,950' and 10,855'. Free @ 10,830'. CPH w/W. RIH w/W. RIH w/W. RU RU Cudd pump truck. RU Rudary Wire Line. RIH and free point to clean. Secure Well. SDFN. 12/1/2014 RU Cudd pump truck. RU Rudary Wire Line. RIH and free point to dis. Torgute bg for 5, tog B dis 0, 500'. CH w/W. RIH w	11/23/2014	Well Shut in to let Halliburton Well Lock cure.
 Iast 24 jis top plugged. Lay down last 24 jis. RIH iwl-5/8" bit and tbg to 9062'. Start increasing points on weight indicator. POH to 8900'. Secure Weil SDFN. Top and csg pai - 0. Finish POH w/86 jis 2-7/8" tbg. Lay down 40 jis. Iast 20 jis plugged, had Weil Lock on outside of tbg. RIH w/PCD bit and 2-7/8" tbg. Cric clean. Recovered hard Weil Lock and soft Weil Lock, pictures sent to Midland. Samples also taken on location. Secure Weil. Shut down for Thanksgiving Holiday. Ti1/27/2014 Shut down for Thanksgiving. Ti1/27/2014 Shut down for Thanksgiving. Ti1/28/2014 Csg and tbg si - 0. Replace stripper rubber. Drill out HES Weil Lock from 10,279 to 10,750. Drill out hard Weil Lock from 10,750 to 10,970. Pump 400 bbl to circ clean. POH w/EOT @110,938. Secure Weil. SDFN. Ti29/2014 Csg and tbg si - 0. Replace stripper rubber. Drill out HES Weil Lock from 10,970, to 11,156'. Pump 350 bbl to circ csg. POH w/EOT @11,127'. Secure Weil. SDFN. Ti302/2014 SICP & SITP 0 psi. Drill out Weil Lock squeeze from 11,158 ft to 11,210'. Started packing off. POH w/ 2 jis. Circulate 110 bbls @1.5 BPM 3500 psi. Packed of w/ 4000 pai. LD swivel. POH w/ 1 1. Tubing stuck @11,127'. Secure well & SDFN. Crieculate 410 bbls @1.5 BPM 3500 psi. Dek weight. Dol w/W. Rill w/W.M. Rill w/W.M. King shot. Torque tbg to the right 10 rds. Torque bg for 5,000 on tbg. 70,000 on tbg and pressure up on tbg to 7500 psi. Did not free tbg. RD Cudd pump truck. RU Rotary Wire Line. RIH and free point tbg. Tog 100% stuck @11,050', 10,900' and 10,855'. Free @1.0830'. POH w/W. Rill w/W.M. RII w/W.M. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down tods. RD Rotary W.L. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down tods. RD Rotary W.L. RU Cudd pump truck. Pump 400 bbl PW @ 6 bpm to clean csg. RD Cudd. POH laying down tods. RD Rotary W.L. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH		
 tbg, circ clear. Recovered hard Well Lock and soft Well Lock, pictures sent to Midland. Samples also taken on location. Secure Well. Shut down for Thanksgiving Holday. 11/27/2014 Shut down for Thanksgiving. 11/28/2014 Csg and tbg psi-0. Replace stripper rubber. Drill out HES Well Lock from 10,750. Drill out hard Well Lock from 10,750 to 10,970. Pump 400 bbl to circ clean. POH wECOT @11,938. Secure Well. SDFN. 11/28/2014 Csg and tbg psi-0. Replace stripper rubber. Drill out HES Well Lock from 10,970. to 11,156'. Pump 350 bbl to circ csg. POH wEOT @11,127'. Secure Well. SDFN. 11/29/2014 SICP & SITP O psi. Drill out Well Lock squeeze from 11,158 ft to 11,210'. Started packing off. POH w/ 2 jts. Circulate 110 bbls @ 1.5 BPM 3500 psi. Packed off w/ 4000 psi. LD swivel. POH w/ 1 jt. Tubing stuck @11,127'. Secure well & SDFN. Ordered back off wireline truck & large pum truck for AM arrival Monday 12/1/4. 12/1/2014 RU Cudd pump truck. Arl lines froze on service unit. Thaw out air lines. Est circ. Pressure up down tbg. Pull 120,000 on tbg and pressure up on tbg to 500 psi. JD. Swivel. POH w/WL. Exing shot. Torque tbg to the right 10 rd. Torque tbg 4 rds, to the left. Back off tbg @ 10,502'. Ck tbg weight. POH w/ML ksing down tools. RD Rotary WL. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down 7 its 2-7/8' PH-6 tbg. Secure well. SDFN. 12/2/2014 Csg and tbg psi-0. Finish POH w/2-7/8'' PH-6 tbg. RIH w/screw in sub. 3-3/4' bumper sub, jars, 6 - 3-1/2'' dc's, 2-7/8'' PH-6 tbg. RIH and tag tbg @ 10.785'. The dbg psi-0. Finish POH w/2-7/8'' PH-6 tbg. Ord and RD Rotary WL. POH w/2-7/8'''s tbg. RIW will wHA. SDON. 12/2/2014 Csg and tbg psi-0. Finish POH w/2-7/8'' PH-6 tbg. RIH and tsol out 3000 ob jsi when tbg rotary WL. RIW will and to also dot gb 0.500 bsi. No roce all Midland Office. Decision made to back off tbg. Torray WL. RIH w/strip shot to 15. Jar and beat down on bg for 3.5 hrs to try and move stuck tbg. No movemen	1/25/2014	last 24 jts tbg plugged. Lay down last 24 jts. RIH w/4-5/8" bit and tbg to 9062'. Start increasing points on weight indicator. POH to 8900'. Secure Wel
 11/28/2014 Csg and tbg psi - 0. Replace stripper rubber. Drill out HES Well Lock from 10,750 to 10,750. Drill out hard Well Lock from 10,750 to 10,970. Pump 400 bbl to circ clean. POH w/EOT @11,938. Secure Well. SDFN. 11/29/2014 Csg and tbg psi - 0. Replace stripper rubber. Drill out HES Well Lock from 10,970, to 11,158'. Pump 350 bbl to circ csg. POH w/EOT @11,127'. Secure Well. SDFN. 11/30/2014 SICP & SITP 0 psi. Drill out Well Lock squeeze from 11,158 ft to 11,210'. Started packing off. POH w/ 2 its. Circulate 110 bbls @ 1.5 BPM 3500 psi. Packed off w 4000 psi. LD oswivel. POH w/ 1 it. Tubing stuck @ 11,127'. Secure well & SDFN. Ordered back off wireline truck & large pump truck for AM arrival Monday 12/1/14. 12/1/2014 RU Cudd pump truck. Air lines forze on service unit. Thaw out air lines. Est circ. Pressure up down tbg, Pull 120,000 on tbg and pressure up on tbg to 5000 psi. Did not free tbg. RD Cudd pump truck. RN Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH w/01, 1570 psi. Did not free tbg. RD Cudd pump truck. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down 7 is 2-7/8" PH-6 tbg. Secure well. SDFN. 12/2/2014 Csg and tbg psi - 0. Finish POH wi/2-7/8" PH-6 tbg. RIH wiscrew in sub, 3-3/4" bumper sub, jars, 6 - 3-1/2" dc's, 2-7/8" PH-6 tbg. RIH and tag tbg @ 10,499'. Screw in to fsh. Jar and beat down on tbg for 3.5 hrs to try and move stuck tbg. No movement up or down. Secure Well. SDFN. 12/2/2014 Csg and tbg psi - 0. Fini wire and beat down on tbg for 3.5 hrs to try and move stuck tbg. No move ment up or down. Secure Well. SDFN. 12/2/2014 Csg and tbg psi - 0. Fini wire and beat down on tbg for 3.5 hrs to try and move stuck tbg. No movement up or down. Secure Well. SDFN. 12/2/2014 Csg and tbg psi - 0. Fini wire and beat down on tbg for 3.5 hrs to try and move stuck tbg. No move ment up or down. Secure Well. SDFN. 12/2/2014 Csg and tbg psi - 0. Fini wire and beat down on t	11/26/2014	tbg, circ clean. Recovered hard Well Lock and soft Well Lock, pictures sent to Midland. Samples also taken on location. Secure Well. Shut down for
 400 bbl to circ clean. POH w/EOT @10,938. Secure Well. SDFN. 11/29/2014 Csg and tbg psi - 0. Replace stripper rubber. Drill out HES Well Lock from10,970, to 11,158'. Pump 350 bbl to circ csg. POH w/EOT @11,127'. Secure Well. SDFN. 11/30/2014 SICP & SITP 0 psi. Drill out Well Lock squeeze from 11,158 ft to 11,210'. Started packing off. POH w/ 2 jts. Circulate 110 bbls @ 1.5 BPM 3500 psi. Packed off wi 4000 psi. LD swivel. POH w/ 1 jt. Tubing stuck @ 11,127'. Secure well & SDFN. Ordered back off wireline truck & large pump truck. Air lines froze on service unit. Thaw out air lines. Est circ. Pressure up down tbg. Pull 120,000 on tbg and pressure up on tbg to 7500 psi. Did not free tbg. RD Cudd pump truck. RI Rotary Wire Line. RIH and free point tbg. Tbg 100% stuck @ 11,050'. 10,950'. 10,900' and 10,855'. Free @ 10,830'. POH w/ML, RIH w/ML string shot. Torque tbg to the right 10 rds. Torque tbg 6 rds, to the left. Back off tbg @ 10,502'. Ck tbg weight. POH w/WL laying down tools. RD Rotary WL. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down 7 jts 2-7/8" PH-6 tbg. Secure well. SDFN. 12/2/2014 Csg and tbg psi - 0. Finish POH w/2-7/8" PH-6 tbg. RIH w/screw in sub, 3-3/4" bumper sub, jars, 6 - 3-1/2" dc's, 2-7/8" PH-6 tbg. RIH and tag tbg @ 10,745'. DeH and move stuck tbg. No movement up or down. Secure Well. SDFN. 12/3/2014 Csg and tbg psi - 0. Fini w2-7/8" tbg to 10,745'. Displace csg w/275 bbl 10# brine. RIH to 10,785'. Screw on to fish. Jar and beat down on tbg for 3.5 hrs to ty and move stuck tbg. No movement up or down. Secure Well. SDFN. 12/3/2014 Csg and tbg psi - 0. Fini w2-7/8" tbg to 10,745'. Displace csg w/275 bbl 10# brine. RIH to 10,785'. Screw on to fish. Jar tbg. Move tbg up 10' and beat down 30'. RU power swivel. Swiel would stall out at 3000 psi when tbg rotated. Could not pump down tbg. Pressure up to 6500 psi. RD Swiel. Continue to jar on tbg for 2 hrs. Secure weell. SDFN. 12/3/2014 Csg and tbg psi - 0	11/27/2014	Shut down for Thanksgiving.
 Sečure Well, SDFN. 11/30/2014 SICP & SITP 0 psi. Drill out Well Lock squeeze from 11,158 ft to 11,210'. Started packing off. POH w/ 2 jts. Circulate 110 bbls @ 1.5 BPM 3500 psi. Packed off w/ 4000 psi. L/D swivel. POH w/ 1 jt. Tubing stuck @ 11,127'. Secure well & SDFN. Ordered back off wireline truck & large pump truck for AM arrival Monday 12/1/14. 12/1/2014 RU Cudd pump truck. Air lines froze on service unit. Thaw out air lines. Est circ. Pressure up down tbg. Pull 120,000 on tbg and pressure up on tbg to 7500 psi. Did not free tbg. RD Cudd pump truck. RU Rotary Wire Line. RIH and free point tbg. Tbg 100% stuck @ 11,050'. 10,950', 10,900' and 10,855'. Free @ 10,830'. POH w/WL. RIH w/WL string shot. Torque tbg to the right 10 rds. Torque tbg 6 rds, to the left. Back off tbg @ 10,502'. Ck tbg weight. POH w/WL lay down tob. RD Rotary WL. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down 7 jts 2-7/8' PH-6 tbg. Secure well. SDFN. 12/2/2014 Csg and tbg psi - 0. Finish POH w/2-7/8' PH-6 tbg. RIH w/screw in sub, 3-3/4'' bumper sub, jars, 6 - 3-1/2'' dc's, 2-7/8'' PH-6 tbg. RIH and tag tbg @ 10,499'. Screw in to fish. Jar and beat down on tbg for 3.5 hrs to try and move stuck tbg. No overement up or down. Secure Well. SDFN. 12/2/2014 Csg and tbg psi - 0. Jar on tbg for 2 hrs. No Movement. Pressure up on tbg to 6000 psi. No circ. Call Midland Office. Decision made to back off tbg. RU rotary WL. RIH w/string shot and back off tbg @ 10.785'. POH and RD Rotary WL. POH w/2-7/8'' tbg. RIH w/BA. SDDN. 12/2/2014 Csg and tbg psi - 0. Jar on tbg for 2 hrs. Secure well. SDFN. 12/5/2014 Csg and tbg psi - 0. FIH w/2-7/8'' tbg to 10,748'. Displace esg w/275 bbl 10# brine. RIH to 10,765'. Screw on to fish. Jar tbg. Move tbg up 10' and beat down 30''. RU power swivel. Swive would stall out at 3000 psi when tbg rotated. Could not pump down tbg. Pressure up to 6500 psi. RD Swivel. Continue to jar on tbg for 2 hrs	11/28/2014	
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 to 7500 pś. Dia not free tbg. RD Cudd pump truck. RU Rotary Wire Line. RIH and free point tbg. Tbg 100% stuck @ 11,050°, 10,950°, 10,90° and 10,855°. Free @ 10,830°. POH w/VL. RIH w/WL string shot. Torque tbg to the right 10 ds. Torque tbg 6 rds, to the left. Back off tbg (0,502°. Ck tbg weight. POH w/VL. laying down tools. RD Rotary WL. RU Cudd pump truck. Pump 400 bbl FW @ 6 bpm to clean csg. RD Cudd. POH laying down 7 jts 2-7/8° PH-6 tbg. Secure well. SDFN. 12/2/2014 Csg and tbg psi - 0. Finish POH w/2-7/8° PH-6 tbg. RIH w/screw in sub, 3-3/4° bumper sub, jars, 6 - 3-1/2° dc's, 2-7/8° PH-6 tbg. RIH and tag tbg @ 10,499'. Screw in to fish. Jar and beat down on tbg for 3.5 hrs to try and move stuck tbg. No movement up or down. Secure Well. SDFN. 12/3/2014 Csg and tbg psi - 0. Jar on tbg for 2 hrs. No Movement. Pressure up on tbg to 6000 psi. No circ. Call Midland Office. Decision made to back off tbg. RU rotary WL. RIH w/string shot and back off tbg @ 10.785'. POH and RD Rotary WL. POH w/2-7/8° tbg. RIH w/BHA. SDON. 12/4/2014 Csg and tbg psi - 0. Jar on tbg for 2 hrs. Secure well. SDFN. 12/4/2014 Csg and tbg psi - 0. FIH w/2-7/8° tbg to 10,748'. Displace csg w/275 bbl 10# brine. RIH to 10,785'. Screw on to fish. Jar tbg. Move tbg up 10' and beat down 30'. RU power swivel. Swivel would stall out at 3000 psi when tbg rotated. Could not pump down tbg. Pressure up to 6500 psi. RD Swivel. Continue to jar on tbg for 2 hrs. Secure well. SDFN. 12/5/2014 Csg and tbg psi - 0. Jar on fish for 1 hr. Call Midland Office. RU Rotary WL. RIH w/free point to 10,600'. POH w/WL and tools. Found HES well lock on howe springs. RIH w/2nd free point tool. Tbg free @ 11,004 and stuck @ 11,036'. POH w/ML and tools. RIH w/strip shot. Found HES well lock off failed. Back off tbg @ 10,815'. POH Rd Rotary WL. POH w/bg and BHA. Secure well. SDFN. 12/5/2014 Csg and tbg psi - 0. RIH w/screw in sub, 2-7/8" PH-6 tbg. Screw in tbg at 10,815'. RU Vibration equipment. Vibtrate tbg for	11/30/2014	psi. Packed off w/ 4000 psi. L/D swivel. POH w/ 1 j t. Tubing stuck @ 11,127'. Secure well & SDFN. Ordered back off wireline truck & large pump
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 beat down 30'. RU power swivel. Swivel would stall out at 3000 psi when tbg rotated. Could not pump down tbg. Pressure up to 6500 psi. RD Swivel. Continue to jar on tbg for 2 hrs. Secure well. SDFN. 12/5/2014 Csg and tbg psi - 0. Jar on fish for 1 hr. Call Midland Office. RU Rotary WL. RIH w/free point to 10,600'. POH w/WL and tools. Found HES well lock on bowe springs. RIH w/2nd free point tool. Tbg free @ 11,004 and stuck @ 11,036'. POH w/WL and tools. RIH w/strip shot to 11,004'. Back off failed. Back off second time without strip shot. Back off high. Screw back in tbg. RIH w/stip shot. Collar locator failed. POH to repair collar locator. RIH w/strip shot. Back off tbg @10,815'. POH Rd Rotary WL. POH w/tbg and BHA. Secure well. SDFN. 12/6/2014 Csg and tbg psi - 0. RIH wizerew in sub, 2-7/8" PH-6 tbg. Screw in tbg at 10,815'. RU Vibration equipment. Vibtrate tbg for 4 hrs. POH w/2 its tbg, ND vibration equipment. POH w.4 its tbg. Tbg hung up. RU power swivel. POH w/4 its tbg while using power swivel. ND Power swivel. TBG FREE. POH w/EOT at 10,000'. Secure well. SD for Sunday. 12/7/2014 Shut down for Sunday. Tubing was freed over the weekend. 12/8/2014 POH w/tbg and tools. RIH w/4-5/8" blade bit, 2-7/8" Ph-6 tbg to 10,750'. Circ csg clean. Rotate down and bit would plug off and loose circ. Pump sweep and circ csg. Found small slivers of csg in returns. Lay down swivel. POH w/EOT at 9,997'. Test csg to 4966 psi.ISIP - 4950. 5 min - 4541. 10 min - 4303. 15 min - 4014. Secure well. SD fN. 12/9/2014 Flinis POH w/tbg. Replace blade bit w/mill tooth bit. RIH w/bit and tbg to 10,750'. RU swivel. Clean out to 10,813'. Circ 400 bbl. Clean out to 10,818 Blow out stripper rubber. Close BOP. Circ clean. Lay down swivel. POH w/EOT @10,280'. Secure well. SDFN. 12/10/2014 RIH w/18 jts tbg. Change out stripper rubber. RU swivel and 3" return line. Clean out from 10,812' to 11,200'. Tag HES well lock. Drill for 1 hr and 	12/3/2014	
on bowe springs. RIH w/2nd free point tool. Tbg free @ 11,004 and stuck @ 11,036'. POH w/WL and tools. RIH w/strip shot to 11,004'. Back off failed. Back off second time without strip shot. Back off high. Screw back in tbg. RIH w/strip shot. Collar locator failed. POH to repair collar locator. RIH w/strip shot. Back off tbg @10,815'. POH RI Rotary WL. POH w/tbg and BHA. Secure well. SDFN. 12/6/2014 Csg and tbg psi - 0. RIH w/screw in sub, 2-7/8" PH-6 tbg. Screw in tbg at 10,815'. RU Vibration equipment. Vibtrate tbg for 4 hrs. POH w/2 jts tbg, ND vibration equipment. POH w.4 jts tbg. Tbg hung up. RU power swivel. POH w/4 jts tbg while using power swivel. ND Power swivel. TBG FREE. POH w/EOT at 10,000'. Secure well. SD for Sunday. 12/7/2014 Shut down for Sunday. Tubing was freed over the weekend. 12/8/2014 POH w/tbg and tolos. RIH w/4-5/8" blade bit, 2-7/8" Ph-6 tbg to 10,750'. Circ csg clean. Rotate down and bit would plug off and loose circ. Pump sweep and circ csg. Found small slivers of csg in returns. Lay down swivel. POH w/EOT at 9,997'. Test csg to 4966 psi.ISIP - 4950. 5 min - 4541, 10 min - 4303, 15 min - 4014. Secure well. SDFN. 12/8/2014 Finish POH w/tbg. Replace blade bit w/mill tooth bit. RIH w/bit and tbg to 10,750'. RU swivel. Clean out to 10,813'. Circ 400 bbl. Clean out to 10,818 Blow out stripper rubber. Close BOP. Circ clean. Lay down swivel. POH w/EOT @10,280'. Secure well. SDFN. 12/10/2014 RIH w/18 jts tbg. Change out stripper rubber. RU swivel and 3" return line. Clean out from 10,812' to 11,200'. Tag HES well lock. Drill for 1 h rand	12/4/2014	beat down 30'. RU power swivel. Swivel would stall out at 3000 psi when tbg rotated. Could not pump down tbg. Pressure up to 6500 psi. RD Swivel, Continue to jar on tbg for 2 hrs. Secure well. SDFN.
ND vibration equipment. POH w.4 jts tbg. Tbg hung up. RU power swivel. POH w/4 jts tbg while using power swivel. ND Power swivel. TBG FREE. POH w/EOT at 10,000'. Secure well. SD for Sunday. 12/7/2014 Shut down for Sunday. Tubing was freed over the weekend. 12/8/2014 POH w/tbg and tools. RIH w/4-5/8' blade bit, 2-7/8'' Ph-6 tbg to 10,750'. Circ csg clean. Rotate down and bit would plug off and loose circ. Pump sweep and circ csg. Found small slivers of csg in returns. Lay down swivel. POH w/EOT at 9,997'. Test csg to 4966 psi.ISIP - 4950. 5 min - 4541. 10 min - 4303. 15 min - 4014. Secure well. SDFN. 12/9/2014 Finish POH w/tbg. Replace blade bit w/mill tooth bit. RIH w/bit and tbg to 10,750'. RU swivel. Clean out to 10,813'. Circ 400 bbl. Clean out to 10,818 Blow out stripper rubber. Close BOP. Circ clean. Lay down swivel. POH w/EOT @10,280'. Secure well. SDFN. 12/10/2014 RIH w/18 jts tbg. Change out stripper rubber. RU swivel and 3'' return line. Clean out from 10,812' to 11,200'. Tag HES well lock. Drill for 1 hr and		on bowe springs. RIH w/2nd free point tool. Tbg free @ 11,004 and stuck @ 11,036'. POH w/WL and tools. RIH w/strip shot to 11,004'. Back off failed. Back off second time without strip shot. Back off high. Screw back in tbg. RIH w/strip shot. Collar locator failed. POH to repair collar locator. RIH w/strip shot, Back off tbg @10,815'. POH Rd Rotary WL. POH w/tbg and BHA. Secure well. SDFN.
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		Finish POH w/tbg. Replace blade bit w/mill tooth bit. RIH w/bit and tbg to 10,750'. RU swivel. Clean out to 10,813'. Circ 400 bbl. Clean out to 10,818'. Blow out stripper rubber. Close BOP. Circ clean. Lay down swivel. POH w/EOT @10,280'. Secure well. SDFN.
	12/10/2014	

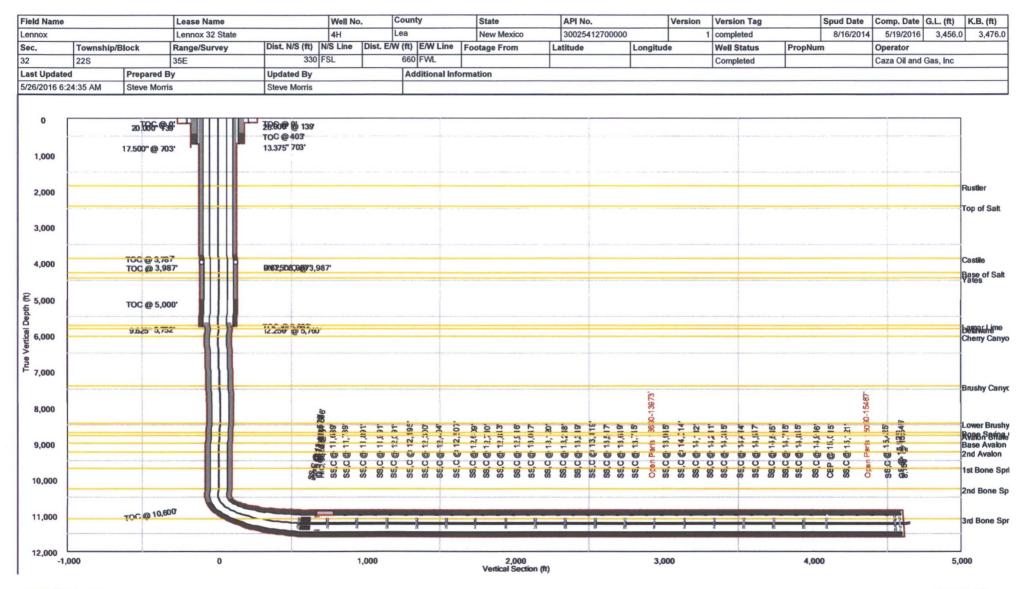
Last up	dated: 5/26/2016 06:24 AM
Date	Comments
12/11/2014	Finish POH w/tbg and bit. Replace mill tooth bit w/PDC bit. RIH and tag @ 11,190'. RU swivel and stripper head with 3" outlet. Clean out from 11,190' to 11,284'. Circ clean using 320 bbl. RD swivel. POH w/16 jts tbg. hung up. Pull 120,000 to free tbg. Move tbg down free. Work tbg through tight. 10,772 to 10,741 hanging up, worked free. POH w/EOT @ 10,280'. Secure well. SDFN.
2/12/2014	Pull tbg up hole 60'. Tbg free. RIH and tag @10,283'. RU swivel and stripper head. Drill down 1 jt. Circ w/160 bbl. Drill down 1 jt. Circ w/160 bbl. Clean out to 11,378'. Circ w/400 bbl using 3 gal sweep. Rd swivel. POH w/17 stds tbg. EOT @ 10,311'. Total fluid circ 1770 bbl. Secure well. SDFN.
12/13/2014	RIH w/tbg and PDC bit. Tag @ 10,478'. RU swivel. Work down bit 1 jt. Pump Circ w/275 bbl. RD swivel. RIH and tag @ 11,378'. RU swivel. Drill out 2 jts. Returns plugged off. RD swivel. Found 3" outlet on stripper head plugged off. Plugged off wlarge pieces of well lock. Pictures sent to Midland. NU stripper head. Circ csg clean. Clean out to 11,503'. Circ hole clean. POH w/slight drag. EOT @ 10,250'. Secure well. Shut down for Sunday.
12/15/2014	Start WSU. Start in hole from 10,250'. Tagged @ 10,258'. Clean out well to 11,503'. Started to drill Well Lock. Stripper head plugged with large pieces of well lock. Remove stripper. Installed catch pan. Circulated hole clean using vacuum trucks to clear pan of fluids. Discard large pieces of well lock. Drilled well lock squeeze to 11,629' tubing measurements. Circulated clean. POH to 10,248'. Very little drag while POH. R/U pump. Attempt to pressure test squeeze to 7500 psi. Could not get above 5900 psi on test @ 5 BPM injection. Pumped 20 bbls. 5 min 3859 psi. 15 min 3859 psi. 15 min 3859 psi. Bleed pressure to 0 psi. Secure well & shut down for night, ISIP of Test was 5800 psi.
12/16/2014	RIH w/ PDC bit from 10,248' to 11,629'. Drill out Well Lock & plug. Circulate clean with 300 bbls fluid. Gas bubble under plug. R/D swivel. TIH pushing debris to 15,509. Circulated clean w/ 500 bbls @ 5 BPM @ 15,509'. Good Oil & Gas Show on Bottom up. POH w/ Bit @ 15,509'. L/D 45 jts work string. Stand back remainder of tubing to 10,148'. Secure Well & SDFN.
12/17/2014	SICP & SITP 0 psi. No oil or gas show. Finish POH w/ PDC bit. Secure Well & SDFN.
12/18/2014	SICP 0 psi. R/U pump trucks. Pumped 360 bbls water w/ 6000 psi pressure @ 13 BPM. Used 3 sweeps to carry debris to toe. ISIP 4295, 5 min 4160 psi, 10 min 4160, 15 min 4138 psi. P/U RTTS squeeze packer. RIH w/ same to 10,507'. Tested Casing to 7601 psi. Lost 337 psi in 15 min. RIH to 11,479'. Set packer & tested Casing to 7691 psi. Lost 338 psi in 15 min. RIH to 11636'. Set packer. Pumped 40 bbls fluid @ 9.7 BPM 6450 psi. ISIP 3981 psi, 5 min 3958, 10 min 3936, 15 min 3936. Release packer & POH to 11,560 ft. Set packer & tested casing to 7646 psi. Lost 743 psi in 15 min. R/D pump truck. POH to 10,350 ft. Secure well & SDFN.
12/19/2014	Received orders from Midland. Called out crew. 0 psi on tubing & casing. POH LD work string. Lay down packer & load out. Will Finish laying down tubing in derrick this am. Secure well & SDFN.
12/20/2014	RIH w/ 60 stands in derrick, POH L/D work string. N/D BOPE. Install night cap, R/D WSU. Clean Location. All Equipment is released. Poseidon tank released. All water "20,000 bbls" put in Frac pond. Frac tanks emptied and released from Location. "10" water & "2" acid.
3/4/2015	Move in Rig up Reeco well Service Unit, Move in 2 - 500 bbl frac tanks for circ wtr.
	Fill both tanks w/FW. Move in 2 half pits for flow back.
	Move in and rack Longhorn Tubulars 397 jts 2-7/8" PH-6 tbg.
	Move in and rig up Well Foam reverse unit.
3/5/2015	Shut down due to weather
3/6/2015	Csg psi 2300. RU blow down line. Bled well down to half tank. NU BTI 10k BOP. RU Battle Seervices. Test top csg flange connection to 9000 psi. Held OK. RD Battle Services. Talley top row of tbg. RIH w/260 jts 2-7/8" tbg. EOT @ 8166'. SWI SDFN.
3/7/2015	RIH w/381 jts 2-7/8" tbg picking tbg up from racks. Well Foam reverse unit would not start. Decision made to pull EOT to 8758'. RU Capitan WL. Run correlation log and tie in to 2 short jts in csg string. POH and RD Capitan WL. POH w/316 jts 2-7/8" tbg. 2000' kill string. SWI SDFS.
4/3/2016	MIRU pulling unit (C & J 1475) & BOP's & pump. Spot 5 frac tanks. MIRU TanMar trailer and communications. Fill 5 frac tanks with fresh water. SDFN.
4/4/2016	Hold safety meeting and review JSA and discuss all the hazards on location. Wait on correct bit and scraper. Rig up BHA and mic and gauge all tools. RIH with BHA and Wait on the rest of the tubing to be delivered to location. Continue to RIH with BHA to 10,120'. Shut down OPS for the night
4/5/2016	Hold safety meeting with all vendors and go over JSA and job tasks for the day. Continue to RIH with bit & scraper to 15,478' Tagged up at 11,629' on CBP, well lock and trace cement. Made the decision to POOH. POOH with BHA and order sealed bearing rock bit. Waiting on Power swivel parts. RIH with BHA (Sealed bearing bit 4.625) Tag CBP @ 11,629' set slips. Test lines on pump to 5,000 psi had a good test after six failed attempts. Shut down for the night.
4/6/2016	Hold safety meeting with all vendors on site. Go over JSA's and discuss the hazzards of the job. Rig up rotating head. P/U swivel and break circulation @ 2.5 bpm and 925 psi. Tagged fill @ 11,624'. Drilled 6' of fill & then tagged plug @ 11,630'. Rotating @ 70 RPM pump 2.5 bpm @ 1275 psi while drilling on CBP. Drilled through CBP in 35 min. Washed bit down easy. Made connection and RIH without pumping or rotating. Bring pump online rotating slowly to pump sweep. Began 10-10-10 sweep 4.5 bpm @ 2,100 psi. Pumped away 147 bbls when pumped kicked out with low oil pressure light. Fixed problem and continue pumped 221 bbls away and sweep was at surface. 1st sweep to surface @ 295 bbls. Fill reverse pit with clean fluid rig down swivel to pick up pipe off rack. RU hoses and pump to circulate well @ 15,473'. Broke circulation @ 3.5 bpm @ 1500 psi 10 bbls gone. Pump 5 gal of MF-55 @ 1 bpm pumped 40 bbls. Pump 2nd sweep @ 1 bpm then up to 4.5 bpm @ 2,500 psi. 60 bbls gone and 2nd sweep to surface @ 340 bbls pumped total of 375 bbls. POOH and picked up 120K lbs weight with minimal drag. POOH with 45 stands in derrick tool string hanging and secure @ 12,684' Shut down operations for the night.
4/7/2016	Hold safety meeting with all vendors on location. Go over JSA's and review all the hazards. Begin to trip tubing out of hole and the brakes on the pulling unit failed. Shut down job to repair brakes on WSU. 3.5 hrs of down time due to repair on pulling unit. POOH with tubing. Breakout and lay down BHA. Strapped and pick up new BHA. Start in the hole with BHA. Tag up @ 11,547' set 15 pts down pulled 15pts over. Work pipe for 20 mins. Let 15 pts down on work string, Made call to engineer to discuss. Pump sweep and spot at the end of tubing (capacity tbg 57 bbls). Made another 13' to 11,560'; then stacked out. Pump 2nd sweep away 60 bbls total. Work pipe. Pull 20 pts up and down with soft drop catches. Pump another 173 bbls sweep. Pumped sweep to surface and secured well. Total fluid pumped with sweeps was 290 bbls. Shut down for the night.
4/8/2016	Hold safety meeting with all vendors on location. Review JSA's and discuss all hazards of the job. Started working pipe pulled 20 pts over and then drop catch tubing. Put 20 pts down then pulled 30 pts over and repeated. Pulled 5 pts over string weight and rotated to the right 6 times and BHA came free. POOH with BHA and CIBP. CIBP looked good. Break down BHA. RIH with new BHA (Bit Sub & 4 5/8 Sealed Bearing Bit Motor). Tag composite plug @ 11,567'. Rig up Power Swivel. Break circulation and start to drill out composite plug. Drill @ 3 bpm-900psi. Broke through composite plug and started to bottom. Pumped 10-10-10 sweep 3 gals of MF-55 @ 4.5 bpm. Sweep gone @ 260 bbls pumped. Shut down due to weather for 3.5 hours with severe lighting in the area. Continue to bottom. @ report time @ 14,599'.
4/9/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job. Continued in hole, pushed composite plug remnants to 15,474' set 35 pts on tool. POOH with BHA. PU and RIH with new BHA (Round nosed mill, Watermelon Mill, CD Pup, Casing Scraper, CD Pup, Watermelon Mill) Pulling unit down due to brake repair for 2.5 hours. Continue to RIH with new BHA to 11,542' with 374 jts. Rig up power swivel. Break Circulation conventionally @ 2.5 bpm @ 700psi. Dress casing from 11,491' to 11,707' and pump 5 gal of MF-55 for a 10-10-10 Sweep @ surface @ 220 bbls gone. Rig down power swivel and lay down 5 jts. POOH with BHA. Currently at 3,500'.
4/10/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job. Continue out of hole with mill assembly. POOH with BHA. Break down BHA & Pick up HST & CIBP and 4' sub. RIH with BHA (CIPB). Ran through 11,400' to 11,700' slow without any problems. Start to displace fluid PU stripping head rubber. Broke last stand and picked up 6' sub to put us on depth. On depth @ 15,478' rigged up hose and TIW valve and dropped ball. Bring pump on line @ 3 bpm. Pumped 72 bbls tool sheared @ 2,250#. Rigged down hose and prepared to POOH. POOH With BHA. Puling unit down again due to brakes. (4 hour repair) Continue to POOH with BHA. POOH with HST, BHA. Rig up Test Packer BHA. RIH with Test Packer BHA. Currently @ 11,400' @ shift change time.

Date	Comments
4/11/2016	Hold safety meeting with all vendors on location. Review JSA's and all hazards. Set Packer at 11,708' 380 jts. 16 points of compression. Pressure test lines. Good test,Load backside with 47 bbls and test @ 5,000 psi. Immediate leak off, attempt to pressure up several times with same result. Losing ~ 70 ppm. Pressure test tubing @ 5,000 psi. losing~ 1,700 ppm. Unset and PU packer then reset @ 11,708' with 18 points of compression.
	Pressure test tubing @ 5,000 psi losing ~1,900 ppm. Move packer up 3' and reset with 23 points of compression and retest tubing with no success. LD 1 joint and reset packer @ 11,680' with 30 points of compression retest tubing with no success. Pressure test backside again with no success. Immediate leak off. PU 1 joint and reset packer @ 11,708' with 50 points of compression. Retest tubing with no success. TOOH with packer. MU new packer and TIH with new packer. Set packer at 11,771' with 25 points of compression. Test @ 5,000 psi with no success. Lose 100 ppm. Set packer at 11,883' with 25 points of compression. Test @ 5,000 psi with no success. Lose 100 ppm. Set packer at 11,883' with 25 points success. Lose 100 ppm. Packer not seating and/or CIBP at toe leaking. Will POOH and evaluate.
4/12/2016	Hold safety meeting with all vendors on location. Review JSA's and all hazards. Set packer at 12,572' with 20 points of compression. Test tubing @ 5,000 psi, lost 500 ppm. Tested back side, pumped 3 bbls and pressured up to 5,000 psi, lost 100 ppm. TOH with Weatherford Squeeze Packer. Waiting on weather, lighting in the area.Set packer at 7,521' with 20 points of compression. Test tubing @ 5,000 psi, lost 500 ppm. Tested back side, pumped 3 bbls and pressured up to 5,000 psi, lost 100 ppm. TOH with Weatherford Squeeze Packer. Waiting on weather, lighting in the area.Set packer at 7,521' with 20 points of compression. Test tubing @ 5,000 psi, lost 05 fo00 ppm. Tested backside @ 5,000 psi, for 5 minutes. Good test. At surface with packer. MIRU wireline caliper log and tractor BHA Caliper log 11,500' located possible breach in casing @ 11,590' - 11,588'. Will send data to Midland to analyze. MU tractor gamma ray BHA and RIH. Log with gamma ray 10,925' - 10,800'. Gamma ray log completed RDMO wireline equipment. SDON. Release crew until 5 pm on 04/13/16.
4/13/2016	Hold safety meet and review JSA's. Go over any job hazards and work related issues. Waiting on orders to continue with operation. Released Weatherford and currently waiting on Halliburton equipment. Release Pulling unit day crew and will have night crew on tower @ 6pm. Hold safety meet and review JSA's. Go over job hazards and work related issues. MU BHA. TIH with Halliburton Fas-Drill 4.37" O.D. Composite Bridge Plug. Sit down @ 15,025'. (5th NCS Sleeve). Call in to get orders, set CBP at 15,025'. Pumped 75 bbls @ 3 bpm @ 1,820psi. Plug set at 2,450psi. POOH with tubing. Cost of water in frac pond added to daily costs total.
4/14/2016	Hold safety meet and review JSA's. Go over any job hazards and work related issues. TOOH with tubing & HST. Rig down BHA. Rig up RTTS Packer. TIH with RTTS Packer to 11,700' and set RTTS Packer @ 11,700' and tested below packer @ 8,000 psi for 10 minutes. Good test. Tested backside @ 5k psi good test. TIH and set packer @11,600' and test below packer to 8,000 psi. Good test. Tested backside to 5,000 psi with immediate leak off. Isolated breach in casing at 11,596 - 11,600' (That is a tubing tally Depth). POOH with RTTS packer. MU & PU Halliburton 4.37" Fas-Drill CBP. TIH with CBP. Currently @ 3,804' with CBP.
4/15/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards. Continue in hole with Halliburton 4.37" Fas-Drill CBP to 11,623'. Verify pipe count for to ensure depth. Set Halliburton 4.37" Fas-Drill CBP @ 11,623'. Pumped 3 bbls a min @ 1,100psi @ 51 bbls pumped the plug and sheered at 2,451psi. POOH with Halliburton HST. Rig up the Enventure Casing Patch and prepare to RIH. RIH with Enventure Casing Patch. Set Casing Patch successfully. Bottom of Patch @ 11,618' Top of Patch @ 11,579'. Dropped ball and pumped 60 bbls to seat. Pulled nose cone thru Patch and test casing to 3,000 psi. Good test, TOOH with nose cone assembly. LD 2-7/8 tubing.
4/16/2016	Out of the hole with Patch BHA. Rig down BHA and tally the 2 3/8 tubing. (136 joints on location) RIH with a 4 Blade Junk Mill BHA on the 2 3/8 tubing. RIH w/136 joints of 2 3/8. cross over to the 2 7/8 PH6. Tag liner shoe @ 11,621', RU power swivel and break circulation. Drilled out liner shoe and tag CBP @ 11,627', PU and pump sweep and circulated hole clean. RD power swivel and TOOH with BHA. POOH with BHA
4/17/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. POOH with 2 3/8 tubing & Mill BHA. Rig down Mill BHA. Rig up Weatherford Test Packer BHA and RIH. Set Test Packer @ 9,032' that's 292 joints in the hole. Rig up iron to test to 8,000psi. Test Packer to 8,000psi held test for 10 minutes with only loss of 3 psi. Bleed pressure of and rig down iron and prepare to POOH with BHA. POOH with Packer BHA. Rig down BHA. Rig up 4 Blade Junk Mill BHA to RIH to drill out plugs.Tag plug @ 11,627' RU power swivel and drill time 82 minutes. Pump sweep and circulate hole clean. TIH to next plug at 5th NCS Sleeve. Tag plug @ 15,025' drill time 18 minutes. Test casing against CIBP. Bad test. Leak off 100 ppm (same results from previous test against CIBP). TIH to Shoe to pump sweep and clean the hole.
4/18/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Continue to RIH and tag the CIBP @ 15,475', Pump a 10-10-10 Sweep off bottom total of 411 bbls. POOH with the 4 Blade Mill BHA. Rig down BOP's and Rig up 7 1/16 10k Master valve re-position lay down machine. MU & PU 3-1/8 TCP guns. TIH with TCP guns.
4/19/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Coninued to RIH with TCP guns. Pressure activate bull plug FH @ 2,230psi. Shot TCP Guns @ 15,465' to 15,467' & 15,415' to 15,417' & 15,365' to 15,367 & 15,315' to 15,317'. Indication that all guns fired. POOH with BHA. Laying down tubing while coming out of hole. POOH with TCP Guns, verify all guns fired. Rig down TCP Guns and SWI. 5 bpm was established @ 4,410psi. Pumped 100 bbls @ 4,350psi shut down. Rig down pump and iron and power swivel. Stack and load 2 7/8 tubing and move 2 3/8 tubing and racks to side of location.
4/20/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RDMO pulling unit and tubing. MIRU remaining frac tanks and 10M Frac Stack. Spot acid tanks and open top tank with gas buster. MIRU flow back. MIRU pump down equipment for W/L. MIRU water transfer and start to fill frac tanks. Continue to fill frac tanks and kick on well over at frac pond to refill.
4/21/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Found acid transport leaking and made the proper calls to repair. MIRU W/L and pressure control gear & pump down equip. Gamma ray log/CCL log 10,950' - 10,850'. OWP 3,950 psi Establish injection rate of 12 bpm 6,950 psi, Pressured out on 4 attempts. Will pump 2,000 gals of acid and breakdown toe & attempt PD again. Top shot 15,025'. Could not reach desired depth. Pressured out on 4 attempts. Will pump 2,000 gals of acid and breakdown toe & attempt PD again. Top shot 15,025'. Could not reach desired depth. Pressured out on 4 attempts. Will pump 2,000 gals of acid and breakdown toe & attempt PD again. Pumped 2000 gals of acid at 12 bpm 7,542 psi. Broke down with 401 bbls to 6,440 psi. MU/PU perf guns for PD. At 12 bpm 5,900 psi BHA sat down @ 11,586' attempted 5 times to pump thru the obstruction with no success. POOH with BHA for inspection. Decision made to get a Magnum dummy plug. Will arrive on location at 07:30
4/22/2016	Rig down Weatherford wireline due to poor service performance. Call out new W/L company (Dominion Wireline). MIRU Sanjel back side equipment. (Blender and Hydration) and all support equipment. Wait on W/L and pressure control and crane. MIRU Dominion Wireline and support equipment. PU 3-1/8" guns and magnum dummy plug. RIH to perf interval: Bottom shot 15,240' Top shot 15,025'. All shots fired. Pumped 2000 gals of acid at 15 bpm 6,499 psi. Broke down with 332 bbls to 4,999 psi. ISIP 4,137 psi. Continue RU frac.
4/23/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Continue to MIRU Sanjel frac spread and all support equipment. MIRU Pilot Fuel cell. Spot cell and transfer fuel. Continue to Rig up frac. Pressure test treating iron @ 8,500 psi. Perform bucket test. Good test. Put restraints on treating iron. Inspect location, chemical staging area, high pressure barriers. Re-Pressure test to 9,500 psi. Hold safety meeting with all vendors on location. Go over JSA's and all hazzard of the job task. Prepare to begin frac stg 1.
4/24/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Re-Pressure test to 9,500psi. Both valves on the flow-cross were leaking. Made the call to Oilstates to change valves. Place 10k low torque valves on for well control and start frac while waiting on Oilsates. Frac stage 1/20. Open well @ 3,930psi. Pumped 100% to design. Total sand 132,160 lbs 40/70; 466,500 lbs 20/40. Frac Gradient 0.883. Pressure test lubricator to 8,000 psi. Bleed down to 4,500 psi open well. RIH with plug & guns. Set down in patch to pull up and we were stuck. Made the call to surge well and came free and POOH. SWI and pull off lub to inspect tool string. The plug and be stripped of all working parts and the only thing left was center tube. Rigged frac back on well to pump a gel sweep to clear and move all plug parts down hole. Pumped a total of 1,240 bbls. 400 bbls of cross link. Rig up W/L and pressure test lubricator to 8,000psi. RIH with Durmy plug. Sat down at 11,611' same spot as previous runs. Surged well came free and POOH with dummy plug run. Call was made to run CT to clean up patch. Rig down W/L and support equip. for CTU.
4/25/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Waiting on Titan CTU to arrive on location. Rig up Titan CTU, test lines to 8,000 psi. RIH with BHA JZ-Rock bit 4.00 ID. At 6,000' the coiled tubing developed a pinhole leak while RIH between the reel and injector head. SD pump, back pressure valve held, POOH. SWI and rigged down Titan CTU. Waiting on MMS CTU to arrive on location. Hold Saftey meeting and MIRU MMS CTU. Test lines to 8,000 psi. RIH with BHA JZ-Rock bit 4.00 ID. Weight check at 10,400' 24k circulating pressure at 6,100 psi WH at 3,700 psi 2.5 bpm. Tagged obstruction at 11,625' PU & RIH and did not tag again. PU above patch and RIH did not tag. At 11,667' tagged obstruction PU to 11,644' and RIH and tagged again at 11,667' milled for 45 minutes with circulating pressure at 6,527 WH at 3,675 psi. Milled thru obstruction and RIH to 11,800' PU to 11,600' and RIH did not tag. Pumped 2-10 bbl sweeps and continued to 15,010'. Reached 15,010' pumped 10-10-10 sweep and POOH. At surface MU 4'' taper mill & watermelon mill BHA. Test Lubricator to 8,000 psi. RIH with BHA to dress top of patch.

Date 4/26/2016	Comments Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task.
12012010	Continued to RIH with Taper mill & Watermelon Mill. Run through Patch from 11,579' to 11,618' reciprocate 4 times thru patch. POOH with BHA. SW and rig down coil unit. Begin rigging up WL and Frac equipment. Shut down for high winds. Rig up WL to run dummy plug and travel through patch without any problem. POOH with dummy plug. RIH & Plug and perf Stage 2/20. CFP at 15,015'. Shoot guns @ 14,985' to 14,895' Max psi 4,910 Total bbls 310. Frac Stage 2/20, Placed 65,000 lbs of 40/70 ProLite, Placed 186,600 lbs of 20/40 ProLite. 6,502 bbls. Frac Gradient 0.872 pumped 84% of design pumped with early flush due to transfer belt sanding off in the 5 ppg stage. Flushed well and SD. RIH & Plug and perf Stage 3/20. CFP at 14,865'. Shoot guns @ 14,840' to 14,690' Max psi 5,217 Total bbls 292. Stage 3 frac. During acid stage the frac stack developed a leak between swab valve and goat head. Acid was displaced and SD. Waiting on arrival of Oil States to replace ring gasket. ETA 07:00, Lay down risers. Sanjel performing pump maintenace.
4/27/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Change out ring gasket on frac stack because of leak and re-test stack. Rig up lines for frac. Frac Stage 3/20, Placed 65,100 lbs of 40/70 ProLite, Placed 234,140 lbs of 20/40 ProLite, 4,817 bbls. Frac Gradient 0.884 pumped 100% of design. Performed a step rate test ISIP 4,400psi; 5min ISIP 4,258psi; 10 min ISIP 4,218psi; 15 min ISIP 4,204psi. T-Belt sanded off during 4.5 ppg only one side spinning and made the decision to run it out on 4.5 ppg. RIH & Plug and perf Stage 4/20. CFP at 14,665'. Shoot guns @ 14,490' to 14,640' Max psi 5,326 Total bbls 288. Turm well over to Frac. Test Lines and pop-offs. Frac Stage 4/20, Placed 65,240 lbs of 40/70 ProLite, Placed 305,360 lbs of 20/40 ProLite. 4,430 bbls. Frac Gradient 0.887 pumped 100% of design. Job shut down due to suction hose leak. Pressure was high until the 1.5 PPG stage. RIH & Plug and perf Stage 5/20. CFP at 14,290' Shoot guns @ 14,440' to 14,640' Max psi 5,938 Total bbls 265. Grease frac stack. Frac Stage 5/20, Placed 65,560 lbs of 40/70 ProLite, Placed 236,340 lbs of 20/40 ProLite. 4,870 bbls total. Frac Gradient 0.897 One side of T-belt malfunctioned, finished stage with 2.5 ppg 20/40 all prop placed. RIH & Plug and perf Stage 6/20. CFP at 14,265' Shoot guns @ 14,240' to 14,090' Max psi 5,123 Total bbls 261. Waiting on replacement T-belt to arrive from Odessa. Frac Stage 6/20, Placed 66,340 lbs of 40/70 ProLite, Placed 239,320 lbs of 20/40 ProLite. 4,407 bbls. Frac Gradient 0.908 100% prop placed. RIH & Plug and perf Stage 7/20. CFP at 14,065' Shoot guns @ 13,890 to 14,040' Max psi 5,290 Total bbls 290. Turn well over to Frac. Test Lines and pop-offs.
4/28/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Frac Stage 7/20, Placed 65,660 lbs of 40/70 ProLite, Placed 298,020 lbs of 20/40 ProLite. 4,289 bbls. Frac Gradient 0.894 Pumped 100% of design. RIH & Plug and perf Stage 8/20. CFP at 13,865' Shoot guns @ 13,690' to 13840' Max psi 5,475 Total bbls 237. Frac Stage 8/20, Placed 65,400 lbs of 40/70 ProLite, Placed 299,500 lbs of 20/40 ProLite. 3793 bbls. Frac Gradient 0.887 Pumped 100% of design. RIH & Plug and perf Stage 9/20. CFP at 13,665' Shoot guns @ 13,490' to 13,640' Max psi 5,294 Total bbls 214. Oil States greased frac stack. Frac Stage 9/20, Placed 62,000 lbs of 40/70 ProLite, Placed 291,220 lbs of 20/40 ProLite. 37.44 bbls. Frac Gradient 0.888 Pumped 100% of design. RIH & Plug and perf Stage 10/20. CFP at 13,465' Shoot guns @ 13,290' to Max psi 13,440. Total bbls 186. Frac Stage 10/20, Placed 67,060 lbs of 40/70 ProLite, Placed 238,800 lbs of 20/40 ProLite. 4,331 bbls. Frac Gradient 0.918 Pumped 100% of design. RIH & Plug and perf Stage 11/20. CFP at 13,265' Shoot guns @ 13,090' to 13,240 Max psi 6,388 Total bbls 166. Frac Stage 11/20, Placed 65,740 lbs of 40/70 ProLite, Placed 240,160 lbs of 20/40 ProLite. 4,600 bbls. Frac Gradient 0.868 Pumped 100% of design. RIH & Plug and perf Stage 12/20. CFP at 13,065' Shoot guns @ 12,890' to 13,040 Max psi 5,341 Total bbls 165. Frac Stage 11/20, Placed 64,000 lbs of 40/70 ProLite. Placed 186,040 lbs of 20/40 ProLite. 4,386 bbls. Frac Gradient 0.876 Pumped 83% of design due to 2,200 psi increase in 5 ppg over flushed well and SD. RIH & Plug and perf Stage 13/20. CFP at 12,865' Shoot guns @ 12,690' to 12,840 Max psi 5,260 Total bbls 156. Oil States greased frac stack. Frac Stage 13/20, Placed 65,560 lbs of 40/70 ProLite, Placed 243,070 lbs of 20/40 ProLite. 3902 bbls. Frac Gradient 0.897 Pumped 103% of design and SD. RIH & Plug and perf Stage 13/20. CFP at 12,865' Shoot guns @ 12,690' to 12,840 Max psi 5,260 Total bbls 156. Oil States greased frac stack.
4/29/2016	Total water used for frac and pump down 69,415bbls. Total water used for remedial 2500 bbls. Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RIH & Plug and perf Stage 14/20. CFP at 12,660 Shoot guns @ 12,490' to 12,640' Max psi 5,338 Total bbls 148. Frac Stage 14/20, Placed 65,480 lbs of 40/70 ProLite, Placed 241,500 lbs of 20/40 ProLite. 3475 bbls. Frac Gradient 0.881 Pumped 103% of design. RIH & Plug and perf Stage 15/20. CFP at 12,468' Shoot guns @ 12,280' to 12,440' Max psi 6559 Total bbls 110. Frac Stage 15/20, Placed 65,486 lbs of 40/70 ProLite, Placed 246,420 lbs of 20/40 ProLite. 3,576 bbls. Frac Gradient 0.889 Pumped 102% of design. RIH & Plug and perf Stage 16/20. CFP at 12,265' Shoot guns @ 12,089' to 12,240' Max psi 5,7 Total bbls 96. Frac Stage 16/20, Placed 63,000 lbs of 40/70 ProLite, Placed 245,750 lbs of 20/40 ProLite. 3,917 bbls. Frac Gradient 0.887 Pumped 100% of design. Pressure spiked on flush and tripped pumps down to 32 bpm. Started to come back up on rate to flush the well and pressure rose sharply causing screen out with 55 bbls left in flush leaving 11,550 lbs of 20/40 ProLite in the wellbore. Surged the well and attempted to pump back into stage and flush well and were unsuccessful. Coil will be coming out to clean out the well. Waiting on CTU to arrive. MIRU CTU pressure test surface equip. to 8,500 psi. Open well pressure @ 3,900 psi RIH with 4" 5 blade junk mill BHA. Circulating psi 4,195, well head pressure 1,995, 1/2 bpm Washed down and tagged plug at CT depth 12,314' 48 minute drill time. Light sand in returns. Washed down to CT depth 12,500' with heavy sand and plug parts in returns pumping sweeps. Returns cleaning up. POOH at 20 fpm washing sand and pumping sweeps.
4/30/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. Coil Pooh with BHA. Rig down coil unit and move off location. Move W/L and frac back in to rig up. Pressure test to 9,500 psi. Established rate @ 62 bbls a min @ 7,000psi. Pumped 478 bbls total. Rig up W/L & pressure test lub to 9,000 psi. RIH & Plug and perf Stage 17/20. CFP at 12,065' Shoot guns @ 11,885' to 12,030' Max psi 5,101 Total bbls 78. Frac Stage 17/20, Placed 65,480 lbs of 40/70 ProLite, Placed 233,960 lbs of 20/40 ProLite. 4,292 bbls. Frac Gradient 0.881 Pumped 100% of design. Oil states changing out flow cross. RIH & Plug and perf Stage 18/20. CFP at 11,865' Shoot guns @ 11,675' to 11,825' Max psi 5,133 Total bbls 63. Frac Stage 18/20, Placed 64,660 lbs of 40/70 ProLite, Placed 232,920 lbs of 20/40 ProLite. 4,172 bbls. Frac Gradient 0.889 Pumped 100% of design. RIH & Plug and perf Stage 19/20. CFP at 11,665' Shoot guns @ 11,475' to 11,625' Max psi 4,982 Total bbls 59. Frac Stage 19/20, Placed 65,250 lbs of 40/70 ProLite. Placed 234,680 lbs of 20/40 ProLite. 4,281 bbls. Frac Gradient 0.891 Pumped 100% of design. RIH & Plug and perf Stage 20/20. CFP at 11,465' Shoot guns @ 11,475' to 11,625' Max psi 4,982 Total bbls 59. Frac Stage 19/20, Placed 65,250 lbs of 40/70 ProLite. Placed 234,680 lbs of 20/40 ProLite. 4,281 bbls. Frac Gradient 0.891 Pumped 100% of design. RIH & Plug and perf Stage 20/20. CFP at 11,465' Shoot guns @ 10,904' to 10,908' Max psi 4,896 Total bbls 26. Frac Stage 20/20, Placed 750 lbs of 40/70 ProLite, Placed 24,000 lbs of 20/40 ProLite. 1,107 bbls. Frac Gradient 0.881 Pumped 100% of design. SI 4,850 psi RDMO frac, wireline, and support equipment.
5/1/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RDMO frac and all related equipment. Release frac tanks and acid tanks. Continue to rig down and move out frac equipment. Prep for Coil Unit. Cos adjustment from yesterday's report.
5/2/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. MIRU Coil Unit and all support equipment. Test Coil and flow-back to 8,000psi. OPENED WELL UP @ 09:50 WITH 4,120 PSI. RIH WITH COIL AND BHA. STARTED OUT AN ADJUSTABLE CHK. PUMPING '/ BBL IN AND '// BBL OUT. UNTIL WE GETTING TO (10,900 FT). THEN SWITCH TO A 14/64" POSITIVE CHK AND GET 2 BPM IN AND 2 BPM OUT. RIH SLOWLY TAG PLUG #1 AT 11,510' (CTM). WIRELINE DEPTH WAS 11,465'. RATE IS 2 BPM IN AND 2.5 BPM OUT ON 14/64" POS CHOKE. CIRC - 6,130 PSI. WELLHEAD - 4,350 PSI. DRILLED THRU PLUG IN 12 MINUTES. PUMPED 10 BBL SWEEP. TAG 2ND PLUG AT 11,706' (CTM). WIRELINE DEPTH WAS 11,665'. RATE IS 2 BPM IN AND 2.5 BPM OUT ON 14/64" POS CHOKE. CIRC- 6,325 PSI. WELLHEAD - 4,520 PSI. DRILLED THRU PLUG IN 49 MINUTES. PUMPED 10 BBL SWEEP. TAG 3RD PLUG AT 11,907' (CTM). WIRELINE DEPTH WAS 11,865 RATE IS 2 BPM IN AND 2.5 BPM OUT ON 14/64" POS CHOKE. CIRC - 6,290 PSI. WELLHEAD - 4,480 PSI. DRILLED THRU PLUG IN 35 MINUTES. PUMPED A 10 BBL SWEEP. TAG 47 H0 PLUG AT 12,104' (CTM). WIRELINE DEPTH WAS 12,065' RATE IS 2 BPM IN AND 2.75 BPM OUT ON 14/64" POS CHOKE. CIRC - 6,240 PSI. WELLHEAD - 4,290 PSI. DRILLED THRU PLUG IN 90 MINUTES. PUMPED A 10 BBL SWEEP. PLUG #5 WAS DRILLED DURING THE FRAC JOB. RIH AND TAGGED OFF ON BOTH SIDES DUE TO HUGE PLUG PARTS. CLEANED OUT BOTH SIDES AND POOH. SWAP BHA'S TO A 5 BLADE REVERSE CLUTCH OFF-SET MILL., PRESSURE TEST COIL TO 8,000 PSI. BLEED DOWN TO 4,100 PSI OWH. OPENEDWELL UP@01:20 AMWITH 4,101 PSI. RIH WITH COIL AND BHA. STARTED OUT ON AN ADJUSTABLE. START PUMPING '/ BBL IN AND ½ SBL OUT TO (10,850'). SWITCH TO A 14/64 POSITIVE CHOKE TO GET 2 BPM IN AND 2 BPM OUT. RIH SLOWLY AND TAG PLUG #6. TAG 6TH PLUG AT 12,542' (CTM). WIRELINE DEPTHWAS 12,468' RATE IS 2 DPM IN AND 2 BPM OUT. RIH SLOWLY AND TAG PLUG #6. TAG 6TH PLUG AT 12,542' (CTM). WIRELINE DEPTHWAS 12,468' RATE IS 2 BPM IN AND 2 BPM OUT. RIH SLOWLY AND TAG PLUG #6. TAG 6TH PLUG AT 12,542' (CTM). WIRELINE DEPTHWAS 12,468' RATE IS 2

Date	Comments
5/3/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. WHILE MAKING OUR SHORT TRIP PULLED INTO SOMETHING AT 12,193. COULD NOT MOVE UP OR DOWN. PUMPED A HEAVY 10 - 10 - 10 SWEEP AND PIPE ON PIPE. WORKED PIPE UP & DOWN PULLING NO MORE THE 15K OVER RUNNING WEIGHT. AND SAME GOING DOWN. SURGED WELL A FEW TIME TO TRY TO FREE UP. SHUT IN MANIFOLD AND BLEED DOWN COIL PSI TO LET PIPE RELAX. WILL HOLD FOR AN HOUR. BEFORE NEXT STEP. RIG UP PUMP TO BACK - SIDE AND PUMP 3 BBLS A MIN. BACK SIDE BEGAN TO PRESSURE UP AT 62 BBLS TO 4,090 PSI. SHUT PUMPS DOWN AND SURGE WELL A FEW TIMES WITH 10K OVER RUNNING WEIGHT AND 10K DOWN. NO RELIEF, PUMP NITROGEN DOWN THE BACK - SIDE 3,600 SCF. SAW A GRADUAL INCREASE IN WELL PRESSURE. MADE CALL TO TOWN AND DISCUSSED AND MADE THE DECISION TO SHUT WELL IN AND LET THE PIPE RELAX OVER NIGHT. Held 6K on coil and 3.5K or backside overnight.
5/4/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. SURGED WELL WHILE SAT DOWN THEN PULLED OVER TO 48,000#. NO MOVEMENT. PUMPED DOWN THE BACK-SIDE TOTAL OF 820 BBLS. BEGAN TO TAKE FLUID @ 3,860 PSI. SURGE WELL WHILE STACKED OUT AND THEN SURGED WELL WHILE PULLING UP TO 30,000#. FLOWED BACK 1,230 BBLS. PRESSRE BEGAN TO FALL FROM 3,800 PSI TO 400 PSI. PRESSURE STAYING AROUND 600 PSI. OIL CUT LIGHT SAND NO GAS. WAITING ON ORDERS. STARED FLOWING WELL @ 250 PSI @ 3/4 A BBLS A MINUTE. AFTER 3 HOURS WELL WAS FLOWING @ 1/2 BBL A MINUTE AND SURGING BETWEEN 50 PSI AND 100 PSI. CHOKE WAS @ 34/64. FLOWED BACK 240 BBLS SINCE WE STARTED WE FLOWED A TOTAL OF 1,470 BBLS. TRACE OIL LIGHT SAND. SHUT WELL IN AND WAIT FOR 2 HOURS. THEN OPEN FULLY TO SEE WHAT WELL DOES WELL SHUT IN. OPEN WELL @ 2,000 PSI FLOWED 125 BBLS WELL WENT TO 0 PSI. WELL SHUT IN. OPEN WELL @ 2,000 PSI FLOWED 129 BBLS WELL WENT TO 0 PSI. SHUT WELL IN WELL SHUT IN. OPEN WELL @ 1,800 PSI FLOWED 100 BBLS WELL WENT TO 0 PSI. WELL SHUT IN. OPEN WELL @ 1,800 PSI FLOWED 100 BBLS WELL WENT TO 0 PSI. WELL SHUT IN. OPEN WELL @ 1,800 PSI FLOWED 100 BBLS WELL WENT TO 0 PSI. WELL SHUT IN. OPEN WELL BACK IS 1824 BBLS. PLL 64K OVER MOVE COIL 60' UPHOLE AND STARTING TO SEE PRESSURE
5/5/0040	EQUALIZE.
5/5/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. SET DOWN ON COIL 0 THEN PULLED TO 70K PUMPED DOWN THE BACK SAID AND WE BEGAN TO MAKE HOLE 5 FT AT A TIME. MADE 70 TOTAL TO 12,074'. SWAPPED OVER TO PUMP DOWN COIL. PUMPED @ 3 BBLS A MIN. GOT MOTOR BACK AND STARTED SEEING CIRCULATION UP BACK-SIDE. PUMPED 10-10-10 SWEEPS HEAVY AND BEGAN TO GET RETURNS. CLEANED OUT PLUG CATCHER AND FOUND HUGE PLUG PARTS WHILE STILL PUMPING SWEEPS AND FLOWING AT 3 BBLS IN AND 3 BBLS OUT. DROPPED 3/4 BALL TO DISCONNECT COIL MOTOR. PUMPED 70 BBLS DOWN COIL BUT COULD NOT GET BALL TO SET. FLOWED BACK COIL TO MOVE BALL AND CONTINUED TO TRY AND SET, WOULD NOT SEAT. COIL IS CYCLED OUT OF PULLS. WILL LOAD HOLE WITH BRINE AND CUT COIL THIS AM TO PREPARE FOR SNUBBING UNIT AND FISH COIL/BHA.
5/6/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. PULL ON COIL TO 75K NO MOVEMENT. PUMP 15.6 POUND MUD DOWN COIL TO KILL COIL PRESSURE. PUMPED 60 BBLS TOTAL. RIG UP TO CUT COIL TO PUT TIW VALVE AND ON TOP OF COIL.DISPLACE MUD IN COIL TO MAKE W/L RUN. WAITING ON TOOLS FOR W/L. FINISH RIGGING UP W/L TOOLS AND STAB LUB ON COIL AND TIW VALVE. AFTER STABBING LUB AND TOOLS SAW WHERE TIW VALVE WAS PUT ON BACKWARDS. LAY LUB BACK DOWN TO SWAP AROUND TIW VALVE. WIND PICKED UP AND LIGHTING AND STORMS BLEW IN.SHUT DOWN DUE TO WEATHER CONDITIONS.
5/7/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. PULL ON COIL TO 75K NO MOVEMENT. RIG UP W/L AND 1 INCH JET CUTTER. RIH TO 11,420' AND SAT DOWN WHILE PUMPING 2 BBLS A MIN. PICKED UP AND MADE 4 ATTEMPTS TO TRY AND PUMP DOWN SAT DOWN AJIN SAME SPOT EVERY TIME. PULLED UP TO 11,415' AND MADE THE CUT. SAW GREAT INDICATION THE PIPE CUT. POOH WITH W/L PICK UP ON COIL TO 70K AND PUSHED DOWN TO STACK-OUT WEIGHT. MADE 10 ATTEMPTS WITH NO LUCK MAX PULL WAS 73K. WAIT ON HOT SHOT OF NEW CUTTER TO LOACTION. RIH WITH W/L AND CUTTER TO 10,500' SHOOT CUTTER AND HAD A BAD CUT. POOH NO INDICATION CUTTER WENT OF F.PULLED ON COIL TWICE TO 80K AND BROKE LOOSE FROM THE FIRST CUT. GOT ALL STRING WEIGHT BACK. 30K WAS STRING WEIGHT. TIE COIL BACK ON TO REAL WITH WELDER. MADE A HALF OF WRAP AND WELD BROKE. WAS ABLE TO SECURE REEL. RE-WELD AND HOOK STRAPS AND WEDDING RINGS TO COIL TO 8E ABLE TO SPOOL POOH. POOH WITH COIL SLOWLY, BUMP UP AND SHUT BMY. RDMO COIL UNIT. RIG DOWN TREE TO BOTTOM MASTER VALVE.
5/8/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. RIG UP BOP'S AND TORQUE AND TEST STACK AND BOP'S. MIRU PULLING UNIT AND SNUBBING UNIT. COUNT 2 3/8 PH6 110 TOTAL JOINTS 530. TALLIED TUBING. MAKING UP BHA. RIH WITH BHA FILL TUBING EVERY 50 JOINTS. WELL-HEAD PSI 400 PSI. SAT DOWN ON JOINT # 340 AT 10,602' TRIED TO GET ON TOP OF IT 3 TIMES COULD NEVER MAKE A LATCH. PUMPED A 15 BBL SWEEP @ 3 BBLS A MIN AND CIRCULATED IT OUT OF THE HOLE. TRIED TO LATCH AGAIN WITH NO LUCK. RIG UP POWER SWIVEL SO WE CAN DRESS UP COIL TO LATCH. DRESS COIL @ 10,602 TO MAKE LATCH. CAUGHT COIL THIS AM. JAR LOOSE AND PULL 110K OVER. NOT SURE HOW MUCH FISH CAUGHT.
5/9/2016	Hold safety meeting with all vendors on location. Go over JSA's and all hazards of the job task. CONTINUE TO RIG UP POWER SWIVEL. TAGGED TOP OF FISH @ 10,602' BEGAN ROTATING TUBING TO DRESS TOP OF COIL. WENT OVER COIL AND LATCHED UP. STRING WEIGHT WAS 57K. PULLED TO 67K AND SET JARS OFF RE-PEATED PROCESS 7 TIMES @ 87K. CIRCULATE SWEEP. PULLED TO 110K TBG PULLED FREE STRING WEIGHT WAS 57,500#. SLUGGED TUBING WITH 25 BBLS OF 15.6 MUD RIG DOWN POWER SWIVEL. PULLED 339 JOINTS OUT OF HOLE. COIL WAS IN OVER SHOT. LAYED DOWN 849 FT OF COIL FROM FISH. REPLACED 2" GRAPPLE AND 3 3/4 BOVM. RIH WITH TBG AND SAME BHA. 339 JOINT IN DERRICK, PU 28 JOINTS OFF OF PIPE RACKS. TAGGED FISH @ 11,431' PICK UP TO 11,426'. RIG UP PUMP IRON AND PUMP 15 BBL SWEEP 90 VIS. CHASED BY 250 BBLS. RIH TO 11,450' TAGGED FISH. RIG UP POWER SWIVEL. ROTATED OVER FISH LATCHED ONTO FISH AND KICKED POWER SWIVEL OFF. PICK UP TO 20K OVER STRING WEIGHT. SET JARS OFF. CONTINUED JARING FOR 45 MIN. PULLED UP TO 35K OVER STRING WEIGHT FISH CAME FREE. RIG DOWN POWER SWIVEL. CURRENTLY POOH WITH FISH.
5/10/2016	HOLD SAFTEY MEETING WITH ALL VENDORS ON LOCATION. PUMPED 30 BBLS OF 15.6 MUD DOWN TUBING CHASED BY 20 BBLS OF FRESH WATER. POOH WITH 367 JOINT OF 2 3/8 TUBING AND BHA. HAD 36.67' OF COIL IN OVERSHOT. REPLACED JARS AND OVERSHOT BOWL. REPLACED 2' NITRALLY GRAPPLE. TOP OF NEW FISH IS @ 11.487' WELL TOO A KICK TO 3.690 POUNDS. PUMPED 275 BBLS OF 10# BRINE TO KILL WELL. RIH WITH TUBING AND BHA TO TOP OF FISH. TAG FISH @ 11.487. RIG UP POWER SWIVEL AND 8' PUP JOINT. KICKED PUMP IN AT 2 BBLS A MIN AND LATCHED COIL. STARTED JARRING AT 20K OVER STRING WEIGHT. INCREASED BY 10K EACH TO TO 110K WITCH IS 50K OVER STRING WEIGHT. PUMPED A SWEEP @ 90 VIS. RIG DOWN POWER SWIVEL. RIG UP W/L AND 1 INCH CUTTER. RIH WITH W/L CUTTER PUMP DOWN TO 11,428' W/L MEASUREMENT COULD NOT GET THROUGH TOP OF COIL SO WE PULLED UP 5' AND GOT STUCK IN THE JARS. WORKED W/L AND TRIED TO PUMP ON IT DOWN TUBING AND UP THE BACKSIDE WITH NO SUCCESS, PULLED W/L OUT OF ROPE SOCKET. POOH WITH W/L AND RIG DOWN.
5/11/2016	HOLD SAFTEY MEETING WITH ALL VENDORS AND GO OVER JSA'S. PULLED W/L OUT OF ROPE SOCKET AND POOH. RIG DOWN W/L. WORKED TUBING TO 140K JARS WERE GOING OFF @ 80k. COULDN'T BREAK COIL. RIG UP POWER SWIVELAND ROTATE FREE FROM OVERSHOT. POOH STOOF BACK 182 STANDS. RIG UP 4' CUT LIP GUIDE. 3 5/8 OD SNIPPER OVERSHOT, AND 1 JOINT OF 2 7/8 TUBING AND CROSS OVER TO 2 3/8 FTC VALVE. RIH WITH TUBING AND BHA TO TOP OF FISH 11,487'. WENT OVER TOP OF FISH @ 11,487' SWALLOWED DOWN TO 11,504' PULLED INTO SNIPPER OVER SHOT. SNIPPER SHEARED @ 30K OVER (85K) PULLED UP TO 100K TO SET JARS OFF. PULLED UP TO 120K AND FELL BACK TO 110K. PULLED BACK TO 120K AND FELL BACK TO 105K PULLED BACK UP TO 120K AND FELL BACK TO 100K CONTINUED TO PULL AND BROKE FREE WEIGHT BACK TO 58K. POOH WITH 40 JOINTS. AND WAITED ON 10# BRINE. RIG UP AND PUMP 10# BRINE. CIRCULATED 245 BBLS @ 2.5 BBLS A MIN. POOH WITH TUBING . LAY DOWN BHA HAD 17.10' OF COIL. RIG UP GRAPPLE AND BHA.

Date	Comments
5/12/2016	HPJSM, Discuss potential hazards (Overhead and Jarring). Fishing tools in route, waiting on fishing tools. M/U Fishing assembly BHA (3-3/4" cut lip guide, 3-3/4" or intrally grapple, Upper ext., top bushing X/O to 2-3/8" IF, 3-3/4" OD Bumper jars, 3-3/4" Oil Jars, X/O to 3-3/8" PH-6 tbg, 10' Pup jnt, RN Nipple, 1 jnt 2-3/8" PH-6 tbg), 10' Pup jnt, RN Nipple, 1 jnt 2-3/8" PH-6 tbg), 10' Pup jnt, RN Nipple, 1 jnt 2-3/8" PH-6 tbg), 10' Pup jnt, RN Nipple, 1 jnt 2-3/8" IF, 3-3/4" OI Bumper jars, 3-3/4" OI Jars, X/O to 3-3/8" PH-6 tbg), 10' Pup jnt, RN Nipple, 1 jnt 2-3/8" IF, 3-3/4" OI Bumper jars, 3-3/4" OI jars, X/O to 3-3/8" PH-6 tbg), work down over fish, SW @ 55K, latch onto fish, could not dress off of latch fish, R/U the power swivel, pump 2 bpm @ 1000 psi., rotate to dress off fish, work down over fish, SW @ 55K, latch onto fish, pulled 65K and fell off, worked to latch onto fish, unable to latch onto fish. R/D power swivel, pull out of the hole will grapple, Upper ext., top bushing X/O to 2-3/8" IF, 3-3/4" OD bumper jars, 3-3/4" OI Jars, X/O to 3-3/8" PH-6 tbg, 10' upper jart, 8-3/4" or D swershot w/2" nitrally grapple, Upper ext, top bushing X/O to 2-3/8" IF, 3-3/4" OD Bumper jars, 3-3/4" OI Jars, X/O to 3-3/8" PH-6 tbg, 10' up jnt, RN Nipple, 1 jnt 2-3/8" PH-6 tbg, 10' pu jnt, NO to 2-3/8" IF, 3-3/4" OD Bumper jars, 3-3/4" OI Jars, X/O to 3-3/8" PH-6 tbg, 10' up jnt, rotate over fish w/ tongs, latch onto fish. Set down to load jars, pulled up to 85K, fell off to 80K, pulled up to 90K (35K over SW), firred jars, slacked off to load jars, pulled up to 100K, worked up to 115K, jars fired, slacked off to load jars, pulled to 130K, increase pull at 5k. L/D pup jnt, install TIW, pull 20K over SW, MIRU Wireline. Wireline tripped in the hole w/ 1" OD cutter @ 10,500', pump down cutter to 11,487' unable to go deeper, shutdown pumping, Pull wireline up to 10,500', start pumping cutter to 11,476', unable to go deeper, shut down pump. No fish. Trip out of the hole w/ wireline. Circulate down tbg @ 3 bpm, 4000 psi (3
5/13/2016	HPJSM, (Fall Protection and Forklift). Continue to jar on fish @ 120K to 140K, No movement of fish, MU Swivel, Release overshot from fish, RD Swivel. Pull out of the hole with tbg. Laydown fishing assembly, MU BPV on tbg end, install R-nipple on 2nd jnt, Trip in the hole w/ 364 jnts 2-3/8" PH -6 tbg. RU circulating hose, pump 290 bbls of freshwater down tbg, displace out 10# Brine water. Trip out of the hole laying down 364 jnts 0-3/8" tbg. (occasional fluid/gas release, but no flow). RDMO laydown equipment, pump, reverse open top tank, load out equipment, pre for release.
5/14/2016	HPJSM, (Health, Remaining Hydrated). RDMO Pulling and snubbing units, Mud mixing equipment, fishing tools and laydown equipment and personnel. Nipple up and test frac stack (250/10,000 psi, all good) RDMO, nipple up crew and tester. MIRU flow back equipment (Sand trap, 3 phase Test Seperator, Flare Stack, Test Choke manifold). Open well to test manifold, 1000 psi. Start flow back testing.
5/15/2016	HPJSM, (Flowback, pressure & gas). Shut in well, monitor pressure for build, pressured up to 800 psi. Open well, flow back.
5/16/2016	HPJSM, (Flowback, pressure & gas). Flow Back. Nipple down Frac Stack valves, MIRU Eagle Completions pulling unit, set pipe racks, load 2-7/8" tbg on racks. MIRU Dominion Wireline. Trip in and out of the hole @ 10,900' with gauge ring. MU and trip with Weatherford Packer with Magnum Disk to 10,849', Set packer, weight test (good), Trip out of the hole. Bleed down well to zero, Nipple down Frac Stack master valve and nipple up 5K Frac Stack BOPE. Secure well. Monitor. No rig activity, Prepare to run Liberty Gas Lift and Production tubing.
5/17/2016	HPJSM, (picking up tbg, pressure). MIRU Liberty Gas Lift, MU on/off tool, install gas lift system in 2-7/8" production tubing at 2160.62', 3535.57', 4357.27', 4884.68', 5444.39', 6003.78', 6562.56', 7089.10', 7648.95', 8207.34', 8766.07', 9324.93', 9851.30', 10,410.24', 10,772.06'. Production tubing run schedule: 2-7/8" tbg Hanger, 1 jnt 2-7/8" tbg, 1-0' pup jnt 2-7/8" tbg, 0.1 @ 4884.68', 17 jnts 2-7/8" tbg, GL @ 2535.57', 25 jnts 2-7/8" tbg, GL @ 4357.27', 16 jnts 2-7/8" tbg, GL @ 4884.68', 17 jnts 2-7/8" tbg, GL @ 2535.57', 25 jnts 2-7/8" tbg, GL @ 4357.27', 16 jnts 2-7/8" tbg, GL @ 4884.68', 17 jnts 2-7/8" tbg, GL @ 5444.39', 17 jnts 2-7/8" tbg, GL @ 6355.57', 25 jnts 2-7/8" tbg, GL @ 4557.27', 16 jnts 2-7/8" tbg, GL @ 10,772.06'. Coll & 6484.68', 17 jnts 2-7/8" tbg, GL @ 5444.39', 17 jnts 2-7/8" tbg, GL @ 603.78', 17 jnts 2-7/8" tbg, GL @ 6562.56', 16 jnts 2-7/8" tbg, GL @ 7089.10', 17 jnts 2-7/8" tbg, GL @ 5444.39', 17 jnts 2-7/8" tbg, GL @ 10,772.06'. jnts 2-7/8" tbg, GL @ 9324.93', 16 jnts 2-7/8" tbg, GL @ 9851.30', 17 jnts 2-7/8" tbg, GL @ 10,772.06'. jnts 2-7/8" tbg,
5/18/2016	HPJSM, (lightning and weather). Kill truck in route to location. MIRU Lucky Well Service Kill Truck, Rig up to Well, open valves, slowly build pressure, burst disk @ 2700 psi, pump 2 bbls freshwater, shut down, shut in pressure @ 500 psi, secure well, RDMO kill truck. Release non- essential equipment, MIRU frac tanks for flow back operations, rig up flow back equipment. Open well for flow back, 800 psi.



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Field Name Lease Nam			me Well No.		II No.	API No.		Version	Version Tag			
Lennox Lennox 32		State	4H		30025412700000		1	com	ompleted			
Section	Tow	nship/Block	ĸ	Range/Survey		County	/ State		GL (ft) KB		KB (ft)	
32	22S			35E		Lea		New Mexico			3,456.0	3,476.0
Target N (-S) (ft)		Target E (-W) (ft)		Latitude		Longitude		Operator			Well Status	
0		0						Caza Oil a	nd Gas, Inc		Completed	
Additional Inform	natio	n										

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	0.0
100.0	0.6	85.2	100.0	0.0	0.0	0.6	0.6
200.0	0.5	92.2	200.0	0.1	0.1	1.6	0.1
300.0	0.5	92.2	300.0	0.0	0.0	2.5	0.0
400.0	0.6	98.3	400.0	-0.1	-0.1	3.5	0.1
500.0	0.7	99.9	500.0	-0.2	-0.2	4.6	0.0
600.0	0.8	103.3	600.0	-0.5	-0.5	5.9	0.1
700.0	0.5	105.9	700.0	-0.8	-0.8	7.0	0.3
800.0	0.3	110.0	800.0	-1.0	-1.0	7.6	0.2
900.0	0.2 0.1	133.7 48.3	900.0	-1.2 -1.2	-1.2 -1.2	8.0	0.1
1,000.0 1,100.0	0.1	48.3	1,000.0			8.1 8.2	0.1
1,200.0	0.2	19.2	1,100.0 1,200.0	-1.0 -0.9	-1.0 -0.9	8.4	0.1
1,200.0	0.1	163.8	1,300.0	-0.9	-0.9	8.6	0.1
1,400.0	0.1	239.3	1,400.0	-1.1	-1.1	8.6	0.1
1,500.0	0.2	275.5	1,500.0	-1.2	-1.2	8.3	0.1
1,600.0	0.2	329.4	1,600.0	-1.0	-1.0	8.1	0.2
1,700.0	0.3	21.3	1,700.0	-0.6	-0.6	8.0	0.2
1,800.0	0.2	152.7	1,800.0	-0.5	-0.5	8.2	0.4
1,900.0	0.2	16.6	1,900.0	-0.5	-0.5	8.4	0.4
2,000.0	0.2	47.4	2,000.0	-0.2	-0.2	8.5	0.1
2,100.0	0.1	200.9	2,100.0	-0.2	-0.2	8.6	0.2
2,200.0	0.0	232.7	2,200.0	-0.2	-0.2	8.6	0.0
2,300.0	0.2	333.2	2,300.0	-0.1	-0.1	8.5	0.
2,400.0	0.1	220.3	2,400.0	-0.1	-0.1	8.4	0.
2,500.0	0.2	196.4	2,500.0	-0.3	-0.3	8.3	0.
2,600.0	0.1	275.3	2,600.0	-0.5	-0.5	8.1	0.3
2,700.0	0.2	296.0	2,700.0	-0.4	-0.4	7.9	0.
2,800.0	0.2	350.8	2,800.0	-0.2	-0.2	7.7	0.
2,900.0	0.1	39.8	2,900.0	0.1	0.1	7.7	0.
3,000.0	0.1	231.8	3,000.0	0.1	0.1	7.7	0.1
3,100.0	0.2	315.9	3,100.0	0.2	0.2	7.5	0.3
3,200.0	0.1	319.7	3,200.0	0.3	0.3	7.3	0.
3,300.0	0.2	355.9	3,300.0	0.5	0.5	7.3	0.
3,400.0	0.1	21.8	3,400.0	0.7	0.7	7.3	0.
3,500.0	0.2	289.4	3,500.0	0.9	0.9	7.2	0.1
3,600.0	0.1	182.5	3,600.0	0.9	0.9	7.1	0.1
3,700.0	0.2	40.1	3,700.0	1.0	1.0	7.2	0.3
3,800.0	0.2	335.2	3,800.0	1.3	1.3	7.2	0.1
3,900.0 4,000.0	0.2 0.2	332.5 348.6	3,899.9 3,999.9	1.6	1.6 1.9	7.1	0.0 0.0
4,100.0	0.2	60.5	4,099.9	1.9 2.1	2.1	7.0 7.1	0.1
4,200.0	0.2	233.7	4,199.9	2.1	2.1	7.1	0.1
4,300.0	0.2	275.8	4,299.9	2.1	2.1	6.9	0.
4,400.0	0.2	285.3	4,399.9	2.1	2.1	6.6	0.0
4,500.0	0.3	240.4	4,499.9	2.0	2.0	6.2	0.
4,600.0	0.2	249.9	4,599.9	1.9	1.9	5.9	0.
4,700.0	0.2	333.6	4,699.9	2.0	2.0	5.7	0.1
4,800.0	0.2	346.6	4,799.9	2.3	2.3	5.6	0.
4,900.0	0.2	82.0	4,899.9	2.5	2.5	5.7	0.1
5,000.0	0.1	227.6	4,999.9	2.5	2.5	5.8	0.1
5,100.0	0.2	251.8	5,099.9	2.3	2.3	5.5	0.
5,200.0	0.2	150.9	5,199.9	2.1	2.1	5.4	0.
5,300.0	0.2	136.4	5,299.9	1.8	1.8	5.6	0.
5,400.0	0.2	171.7	5,399.9	1.6	1.6	5.7	0.
5,500.0	0.2	224.0	5,499.9	1.3	1.3		0.
Www.WellShado		224.0	0,199.9	1.5	1.5		Page 17 of 19

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Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft)
5,600.0	0.2	293.9	5,599.9	1.3	1.3	5.4	0.18
5,700.0	0.2	298.8	5,699.9	1.4	1.4	5.2	0.04
5,800.0	0.2	330.2	5,799.9	1.6	1.6	4.9	0.10
5,900.0	0.1	221.7	5,899.9	1.7	1.7	4.8	0.25
6,000.0	0.4	121.3	5,999.9	1.4	1.4	5.0	0.47
6,100.0	0.3	101.4	6,099.9	1.2	1.2	5.6	0.16
6,200.0	0.2	356.6	6,199.9	1.2	1.2	5.9	0.40
6,300.0	0.2	244.3	6,299.9	1.3	1.3	5.7	0.29
6,400.0	0.7	46.8	6,399.9	1.6	1.6	6.0	0.85
6,500.0	0.3	29.6	6,499.9	2.2	2.2	6.6	0.38
6,600.0	0.8	358.6	6,599.9	3.2	3.2	6.7	0.55
6,700.0	0.7	26.1	6,699.9	4.4	4.4	6.9	0.37
6,800.0	0.8	33.9	6,799.9	5.6	5.6	7.6	0.13
6,900.0	0.6	43.1	6,899.9	6.5	6.5	8.4	0.25
7,000.0	0.6	46.9	6,999.9	7.3	7.3	9.1	0.04
7,100.0	0.7	50.9	7,099.9	8.0	8.0	9.9	0.15
7,200.0	0.8	23.4	7,199.9	9.0	9.0	10.7	0.36
7,300.0	0.5	16.0	7,299.9	10.1	10.1	11.1	0.26
7,400.0	0.4	66.3	7,399.9	10.7	10.7	11.6	0.42
7,500.0	0.7	55.3	7,499.9	11.2	11.2	12.4	0.25
7,600.0	0.7	52.3	7,599.9	11.9	11.9	13.4	0.06
7,700.0	0.9	59.2	7,699.9	12.7	12.7	14.5	0.18
7,800.0	0.6	59.4	7,799.8	13.3	13.3	15.6	0.30
7,900.0	0.7	79.7	7,899.8	13.7	13.7	16.7	0.28
8,000.0	0.7	80.5	7,999.8	13.9	13.9	17.9	0.08
8,100.0	0.5	94.6	8,099.8	13.9	13.9	18.9	0.18
8,200.0	0.7	102.3	8,199.8	13.8	13.8	20.0	0.19
8,300.0	0.9	102.5	8,299.8	13.4	13.4	20.0	0.19
8,400.0	0.9	109.8	8,399.8	12.9	12.9	22.8	0.06
8,500.0	1.5	111.6	8,499.8	12.1	12.1	24.8	0.56
8,600.0	1.1	113.6	8,599.7	11.3	11.3	26.8	0.40
8,700.0	2.0	118.2	8,699.7	10.1	10.1	29.3	0.95
8,800.0	1.5	118.3	8,799.7	8.6	8.6	32.0	0.50
8,900.0	1.9	120.7	8,899.6	7.1	7.1	34.6	0.36
9,000.0	1.8	132.2	8,999.6	5.3	5.3	37.1	0.39
9,100.0	1.4	127.1	9,099.5	3.5	3.5	39.2	0.42
9,200.0	0.6	95.6	9,199.5	2.8	2.8	40.6	0.93
9,300.0	0.3	166.9	9,299.5	2.5	2.5	41.2	0.53
9,400.0	0.2	259.0	9,399.5	2.2	2.2	41.0	0.35
9,500.0	0.2	8.5	9,499.5	2.3	2.3	40.8	0.32
9,600.0	0.2	85.4	9,599.5	2.5	2.5	41.0	0.21
9,700.0	0.2	183.6	9,699.5	2.3	2.3	41.1	0.31
9,800.0	0.2	215.7	9,799.5	2.0	2.0	41.0	0.13
9,900.0	0.2	312.9	9,899.5	2.0	2.0	40.8	0.26
10,000.0	0.2	36.1	9,999.5	2.3	2.0	40.8	
							0.31
10,100.0	0.3	85.9	10,099.5	2.5	2.5	41.3	0.25
10,200.0	0.3	156.7	10,199.5	2.2	2.2	41.7	0.38
10,300.0	0.2	178.9	10,299.5	1.8	1.8	41.8	0.14
10,400.0	0.5	256.2	10,399.5	1.5	1.5	41.4	0.46
10,490.0	0.1	347.8	10,489.5	1.5	1.5	41.0	0.52
10,603.0	8.6	358.5	10,602.1	10.0	10.0	40.8	7.52
10,634.0	9.5	359.6	10,632.7	14.9	14.9	40.7	2.96
10,666.0	10.9	360.0	10,664.2	20.6	20.6	40.7	4.38
10,698.0	13.9	1.6	10,695.4	27.4	27.4	40.8	9.44
10,729.0	16.8	0.6	10,725.3	35.7	35.7	41.0	9.39
10,761.0	19.5	359.7	10,755.7	45.6	45.6	41.0	8.48
10,793.0	22.0	355.3	10,785.7	56.9	56.9	40.5	9.20
10,824.0	23.8	355.3	10,814.2	69.0	69.0	39.5	5.81
10,824.0	26.2	356.9	10,843.2	82.4	82.4	38.6	7.79
				02.4			
10,888.0	28.7	359.5	10,871.6	97.2	97.2	38.1	8.66
10,919.0	30.6	2.5	10,898.5	112.5	112.5	38.4	7.78
10,951.0	33.1	3.1	10,925.7	129.4	129.4	39.2	7.87
10,983.0	35.4	3.0	10,952.2	147.4	147.4	40.2	7.19
11,014.0	37.6	2.5	10,977.1	165.8	165.8	41.1	7.16
					185.9	41.8	
11,046.0	40.6	2.0	11,001.9	185.9	105.9	41.0	9.43

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leasured Depth (ft)	Inclination (deg)	Azimuth (deg)	TVD (ft)	Vertical Section (ft)	Coordinate N (-S) (ft)	Coordinate E (-W) (ft)	DLS (deg/100 ft
11,109.0	45.8	0.9	11,047.7	229.2	229.2	42.7	6.
11,141.0	48.3	0.1	11,069.5	252.6	252.6	42.9	8.
11,173.0	50.8	359.4	11,090.2	277.0	277.0	42.8	7.
11,204.0	53.8	359.5	11,109.2	301.5	301.5	42.6	9.
11,236.0	56.7	359.7	11,127.4	327.8	327.8	42.4	9.
11,263.0	59.6	359.7	11,141.7	350.7	350.7	42.3	10.
11,295.0	62.2	359.4	11,157.2	378.7	378.7	42.1	8.
11,327.0	64.6	358.9	11,171.6	407.3	407.3	41.6	7.
11,358.0	67.5	358.6	11,184.1	435.6	435.6	41.0	9.
11,390.0	70.2	358.7	11,195.7	465.5	465.5	40.3	8
11,422.0	73.7	358.6	11,205.6	495.9	495.9	39.6	10
11,454.0	76.5	358.2	11,213.8	526.8	526.8	38.7	8
11,485.0	79.9	357.8	11,220.2	557.1	557.1	37.7	11
11,580.0	89.2	356.7	11,229.2	651.5	651.5	33.1	9
11,675.0	90.9	357.3	11,229.1	746.3	746.3	28.2	1
11,770.0	92.1	357.4	11,226.6	841.2	841.2	23.8	1
11,865.0	91.3	359.9	11,223.8	936.1	936.1	21.5	2
11,959.0	89.3	360.0	11,223.3	1,030.1	1,030.1	21.5	2
12,055.0	90.1	0.1	11,223.8	1,030.1	1,126.1	21.5	4
12,055.0	89.3	359.6	11,223.8	1,120.1	1,120.1	21.3	(
12,150.0	90.6	359.6	11,224.3	1,221.1	1,221.1	21.3	1
12,340.0	89.9	359.0	11,224.4	1,510.1	1,310.1	19.5	
							(
12,435.0	91.3	358.7	11,223.0	1,506.1	1,506.1	17.6	
12,530.0	89.7	359.0	11,222.1	1,601.0	1,601.0	15.7	1
12,625.0	88.1	359.3	11,224.0	1,696.0	1,696.0	14.2	
12,720.0	89.4	359.7	11,226.0	1,791.0	1,791.0	13.4	
12,815.0	90.9	359.9	11,225.8	1,886.0	1,886.0	13.1	1
12,911.0	89.4	359.1	11,225.5	1,982.0	1,982.0	12.2	1
13,006.0	90.7	359.2	11,225.5	2,077.0	2,077.0	10.8	i i
13,101.0	89.4	358.4	11,225.4	2,171.9	2,171.9	8.8	
13,196.0	88.0	357.2	11,227.5	2,266.8	2,266.8	5.2	1
13,291.0	89.2	357.4	11,229.8	2,361.7	2,361.7	0.7	1
13,386.0	90.5	357.9	11,230.1	2,456.6	2,456.6	-3.2	1
13,481.0	89.0	357.5	11,230.5	2,551.5	2,551.5	-7.0	1
13,576.0	90.2	357.9	11,231.2	2,646.5	2,646.5	-10.8	1
13,672.0	91.6	358.0	11,229.7	2,742.4	2,742.4	-14.2	1
13,767.0	90.1	358.8	11,228.3	2,837.3	2,837.3	-16.9	
13,862.0	91.3	359.6	11,227.1	2,932.3	2,932.3	-18.2	1
13,958.0	89.5	359.2	11,226.4	3,028.3	3,028.3	-19.2	1
14,053.0	90.5	359.0	11,226.4	3,123.3	3,123.3	-20.7	1
14,148.0	88.6	358.9	11,227.2	3,218.3	3,218.3	-22.4	2
14,243.0	89.5	359.1	11,228.7	3,313.2	3,313.2	-24.1	(
14,338.0	91.1	359.6	11,228.2	3,408.2	3,408.2	-25.2	1
14,433.0	89.4	359.5	11,227.8	3,503.2	3,503.2	-25.9	1
14,529.0	90.5	359.8	11,227.9	3,599.2	3,599.2	-26.5	1
14,624.0	88.6	359.4	11,228.7	3,694.2	3,694.2	-27.2	2
14,719.0	89.5	359.5	11,230.2	3,789.2	3,789.2	-28.1	(
14,813.0	90.9	359.8	11,229.9	3,883.2	3,883.2	-28.7	1
14,908.0	88.8	358.7	11,230.2	3,978.2	3,978.2	-29.9	2
15,003.0	90.0	358.7	11,231.2	4,073.1	4,073.1	-32.1	1
15,098.0	88.9	358.6	11,232.1	4,168.1	4,168.1	-34.3	1
15,193.0	90.0	358.7	11,233.0	4,263.1	4,263.1	-36.5	1
15,289.0	91.4	358.9	11,231.8	4,359.0	4,359.0	-38.5	1
15,384.0	92.8	359.7	11,228.3	4,454.0	4,454.0	-39.7	1
15,479.0	94.1	359.7	11,222.6	4,548.8	4,548.8	-40.2	1
15,545.0	94.1	359.7	11,217.9	4,614.6	4,614.6	-40.5	(