<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
<u>District II</u>
811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410 District IV
1220 S. St. Francis Dr. Santa Fe. NM 87505

State of New Mexico Energy, Minerals & Natural Resources HOE

Submit one copy to appropriate District Office

Oil Conservation Division 1220 South St. Francis Dr.

Form C-104

Revised August 1, 2011

subsequently be reviewed and scanned =

1220 S. St. Flai	icis Dr., Sa				Santa Fe, N		REC						
	I.		EST FC	OR ALI	LOWABLE	AND AUTHO			<u>TRAN</u>	SPORT			
Operator n							² OGRID Nu	mber	229137	7			
	. Main S						³ Reason for	Filing C					
	NM 88								NW				
⁴ API Numb 30 – 025-4		5 Poo	l Name	WC-02	25 G-09 S2634	102N; Wolfcamp		° P	ool Code	98116			
	803		perty Nan		aseball Cap F	ederal Com		9 W	ell Num	ber 26H			
II. 10 Su						·							
Ul or lot no. N	25	Township 24S	34E	Lot Idn	Feet from the 325	North/South Line South	Feet from the 1980		West line Vest				
		ole Locatio				_	_	_					
Ul or lot no. C	Section 24	Township 24S	Range 34E	Lot Idn	Feet from the 196	North/South Line North	Feet from the 1685	1	East/West line County West Lea				
12 Lse Code P		cing Method Code	14 Gas Co Da	ite	¹⁵ C-129 Perr	nit Number 16 (C-129 Effective	Date	¹⁷ C-	-129 Expiration Date			
L		<u>F</u>	11/3	0/18									
III. Oil		s Transpo	rters		19 Transpor	rton Nama				²⁰ O/G/W			
OGRID					and Ad					O/G/W			
						C				0			
					AC	C			~~				
24650				Та	rga Midstrea 1000 Louisian	m Services, LP a – Ste 4700				G			
	A St. Land				Houston, T	TX 77002							
10 pm									-				
										Page The Segue 15 Control To 1			
	., .								/ <u>\$^</u> x **				
IV. Wel	l Comp	letion Dat	a										
²¹ Spud Da		22 Ready		T ,	²³ TD	²⁴ PBTD 22820'		²⁶ DHC, MC					
12/9/17		11/30/			23024'	13111-22	815	³⁰ Sacks Cement					
	ole Size		²⁸ Casing		ig Size	²⁹ Depth S	et		• •				
17	1/2"		1	13 3/8"		1135'			1050				
12	1/4"			9 5/8"		12012'			2655				
8	1/2"			5 1/2"		23009'			4665				
			:	2 7/8"		12225'							
V. Well													
³¹ Date New 11/30/18		³² Gas Delive 11/30/			Test Date 1/30/18	³⁴ Test Lengt 24 Hrs	35 T	bg. Pres 3800#	sure	³⁶ Csg. Pressure 2699			
³⁷ Choke S 18/64"	ize	³⁸ Oi 423		39	Water 2792	⁴⁰ Gas 542			_	41 Test Method Flowing			
⁴² I hereby cer							OIL CONSER	VATIO	N DIVISI	ON			
been complied complete to th	e best of	my knowleds	ge and belie	ef.	e is true and								
Signature:	MA 4	In An	Phi			Approved by:	1.	0	_				
Signature: Printed name:	iiano	a JIV	Juj			Title:	ren 2	har r	1 <u>s</u>				
Amanda Av						Sta	H Ma	~					
Title:	701- **					Approval Date:	12 10						
Regulatory E-mail Address							- ad-17						
aavery@con													
Date:		Ph	one:			Do	cuments pen	ding BL	M appr	ovals will			

575-748-6962

01/17/19

Form 3160-5 (June 2015)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31 20:

. €D **

SUNDRY Do not use thi abandoned we		NMNM123530 6. If Indian, Allottee or Tribe Name						
SUBMIT IN	TRIPLICATE - Other inst	ructions on	page 2		7. If Unit or CA/Agree	ement, Name and/or No.		
1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Oth	ner				8. Well Name and No. BASEBALL CAP FEDERAL COM 26H			
2. Name of Operator COG OPERATING LLC	Contact: E-Mail: aavery@co	AMANDA AV	ERY					
3a. Address 2208 W MAIN STREET ARTESIA, NM 88210		3b. Phone No Ph: 575-74	(include area code) 8-6940)	10. Field and Pool or Exploratory Area WILDCAT; WOLFCAMP			
4. Location of Well (Footage, Sec., T Sec 25 T24S R34E Mer NMP	-			11. County or Parish,				
12. CHECK THE AF	PPROPRIATE BOX(ES)	TO INDICA	ΓE NATURE O	F NOTICE,	REPORT, OR OTH	IER DATA		
TYPE OF SUBMISSION			TYPE O	F ACTION				
Notice of Intent ■ Notice of Intent	☐ Acidize	□ Deep	en	□ Product	ion (Start/Resume)	■ Water Shut-Off		
_	☐ Alter Casing	☐ Hyd	raulic Fracturing	☐ Reclam	ation	■ Well Integrity		
☐ Subsequent Report	□ Casing Repair	□ New	Construction	☐ Recomp	lete			
☐ Final Abandonment Notice	☐ Change Plans	_	and Abandon	-	arily Abandon	riyuraunc Fracture		
	☐ Convert to Injection	Plug	Back	☐ Water D	Disposal			
If the proposal is to deepen directional Attach the Bond under which the wor following completion of the involved testing has been completed. Final Abdetermined that the site is ready for fit 2/19/18 -02/20/18 Test annulu Perf 22,880-22,890' (60). Inje 10/14/18 to 10/31/18 Perf 13,1 sand & 18,157,062 gal fluid. 11/12/18 to 11/17/18 Drilled of 11/19/18 Set 2 7/8" 6.5# L-80 11/30/18 Began flowing back	k will be performed or provide operations. If the operation respandonment Notices must be file nal inspection. s to 1500# Set CBP @ 22 ction test. 111-22,815' (2160). Acdz out CFP's. Clean down to tbg @ 12,225' packer @	the Bond No. on ults in a multipled only after all 12,915' and tes w/170,772 ga PBTD @ 22,	file with BLM/BIA completion or recrequirements, included the completion of the completion of the complete comp	A. Required sul completion in a r ding reclamation #. Good test v/19,549,088	osequent reports must be new interval, a Form 316 n, have been completed a	filed within 30 days 0-4 must be filed once		
14. I hereby certify that the foregoing is	Electronic Submission #4	I50717 verifie OPERATING I	I by the BLM We LC, sent to the I	ll Informatior Hobbs	System			
Name (Printed/Typed) AMANDA	AVERY		Title AUTHO	RIZED REP	RESENTATIVE			
Signature (Electronic S	Submission)		Date 01/15/2	019		,		
	THIS SPACE FO	R FEDERA	L OR STATE	OFFICE U	SE			
						will		
Approved By			Title			orovals nned		
Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to condu	itable title to those rights in the	not warrant or subject lease	Office	approvals will approvals will approvals will approvals will approval and scanned and scanned				
Title 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent s				l willf [.]	iments per be rev	ane United		



Baseball Cap Federal Com #26H

	basebali Cap reut	erai Cuili #Zon	1	
<u>Perfs</u>	7 1/2% Acid (Gal)	Sand (#)	Fluid (Gal)	
1	10500	371798	567798	
2	3024	360540	337260	
3	3024	362500	301392	
4	3024	364995	387282	
5	3024	362705	313152	
6	3024	363070	335034	
7	3024	355166	405846	HOBRE OF
8	3024	367180	405132	OCD
9	3024	361036	332136	HOBBS OCD JAN 1 8 2019
10	3024	288398	424536	- 2019
11	3024	368695	385770	RECEIVED
12	3024	364576	411558	TEIVED
13	3024	356946	336294	_
14	3024	358020	348348	
15	3024	359650	325164	
16	3024	366110	336882	
17	3024	370033	328104	
18	3024	362128	320418	
19	3024	357338	331674	
20	3024	354230	410592	
21	3024	360793	385350	
22	3024	367790	313782	
23	3024	364260	325122	
24	3024	361400	324828	
25	3024	364360	320544	
26	3024	358660	385770	
27	3024	359018	335118	r
28	3024	360520	337050	
29	3024 2982	361920	300972	
30 31		364000	395766 325836	
32	3024 3024	292479 398780	335286	
33	3024	383540	316890	
34	3024	368860	313656	
35	3024	365380	314076	
36	3024	362400	322434	
37	3024	367280	288036	
38	3024	356500	293874	
39	3024	376480	355866	
40	3024	360140	307146	
41	3024	361920	305508	
42	3024	364940	288036	
43	3024	368960	297024	
44.	3024	353154	308448	
45	3024	359040	312060	
46	3024	362440	292824	
47	3024	369860	294420	
48	3024	370440	319788	
49	3108	367000	319494	
50	2856	370960	312732	
51	3024	370380	301770	
52	3024	367540	282954	
53	3150	367820	273504	
54	3024	364960	306726	_
Totals	170,772	19,549,088	18,157,062	

	Swysa	Distance Between	Shots	n. Littorpoidi.	Distance Between	Shots	Sego a	Distance Between	Shots	Sings i	Distance Between	Shots	Stage 8	Distance Between	Shots
	00.045	Perfs	5	. 22 650	Perfs	5	22470	Perfs		22.200	Perfs	5	22 444	Perfs	5
	22,815	19		22,659	23			31	5 .	22,290	33		22,111	29	
rom	22,796	19	5	22,637	23	5	22456	22	5	22,275	22	5	22,095	22	5
ottom to	22,777	19	5	22,614	22	- 5	22434	23	5	22,253	22	5	22,073	23	5
op ottom	22,758	19	. 5	22,592	23	5	22411	22	5	22,231	23	: 5	22,050	19	- 5
٠,	22,739	19	5 .	22,569	22	5	22389		5	22,208	23	5	22,031	26	5
	22,720	19	5	22,547	23	5	22366	23	5	22,185	22	5	22,005	23	5
	22,701	19	5	22,524	23	5	22343	20	5	22,163	23	5	21,982	22	5
	22,682		5	22,501		5	22323		5	22,140		5	21,960		5
	Plug to Plug	72	40	Plug to Plug	79	40	Plug to Plu	79	40	lug to Plu	79	40	lug to Plu	79	40
	Frac Plug		Total Shots	Frac Plug	22,671	Total Shots	Frac Plug	22,490	Total Shots		22,310	Total Shots	Frac Plug	22,129	Total Sh
								<u> </u>				· · · · · · · · · · · · · · · · · · ·			
	ीर्या <u>ल</u> ा हो	Distance Between Perfs	Shots	Stagen 9	Distance Between Perfs	Shots	ा है स्तुष्ट्राता	Distance Between Perfs	Shots	1381909	Distance Between Perfs	Shots	diamo fo	Distance Between Perfs	Shots
	21,930	30	5	21,750	29	5	21,572	26	5	21,395	23	5	21,208	28	5
	21,915	23	∶ 5	21,734	23	. 5	21,553	23	. 5	21,373	23	. 5	21,192	22	5 :
rom	21,892	23	5	21,711	22	5	21,530	22	5	21,350	22	5	21,170	23	5
ottom to	21,869	22	5	21,689	25	5	21,508	22	5	21,328	23	5	21,147	23	5
ор	21,847	23	5	21,664	20	5	21,486	23	5	21,305	21	5	21,124	22	5.
							i				-				
	21,824	22	. 5	21,644	23	5	21,463	23	5	21,284	24	5	21,102	23	5
	21,802	23	. 5	21,621	23	. 5	21,440	22	5	21,260	24	. 5	21,079	22	5.
	21,779		5	· 21,598 ·		5	21,418		5	21,236		5	21,057		5
	Plug to Plug	79	40	lug to Plu	79	40	Plug to Plu	79	40	Plug to Plug	79	40	Plug to Plug	79	40
	Frac Plug	21,948	Total Shots	Frac Plug	21,768	Total Shots	Frac Plug	21,587	Total Shots	Frac Plug	21,407	Total Shots	Frac Plug	21,226	Total Sh
	birge et	Distance Between Perfs	Shots	i 1938-ye 10	Distance Between Perfs	Shots	1 750 to 13	Distance Between Perfs	Shots	i - T Digitagan laj 1 - 1	Distance Between Perfs	Shots	.33.isp+ 13i	Distance Between Perfs	Shots
	21,026	31	5	20,854	22	5	20,665	28	5	20,492	23	5	20,303	31	5
	21,012	23	5	20,831	23	5	20,650	22	5	20,470	23	5	20,289	22	5
rom	20,989	23	5	20,808	22	5	20,628	23	5	20,447	22	5	20,267	23	5
ottom to	20,966	22	5	20,786	23	5	20,605	22	5	20,425	23	5	20,244	22	5
ор	20,944	23	5	20,763	18	5	20,583	23	5	20,402	22	. 5	20,222	22	5
-															
	20,921	22	5	20,745	27	5	20,560	22	5	20,380	23	5	20,200	24	5
	20,899	23	5	20,718	25	5	20,538	23	5	20,357	23	5	20,176	18	5
	20,876		5	20.693		5	20,515		5	20,334		5	20,158		5
	Plug to Plug	79	40	lug to Plu	82	40	lug to Plu	77	40	Plug to Plug	79	40	lug to Plu	72	40
	Frac Plug	21,045	Total Shots	Frac Plug	20,868	Total Shots	Frac Plug	20,682	Total Shot	Frac Plug	20,504	Total Shots	Frac Plug	20,316	Total Sho
				·			<u> </u>				·				
	Agearye	Distance Between	Shots	Burgary.	Distance Between	Shots	aug ca	Distance Between	Shots	Ti. (mgs-10)	Distance Between	Shots	off the 30	Distance Between	Shots
		Between Perfs			Between Perfs			Between Perfs			Between Perfs		-	Between Perfs	
	20,123	Between Perfs 35	5	19,951	Between Perfs 22	. 5	19,770	Between Perfs 23	5	19,576	Between Perfs 36	5	19,401	Between Perfs 30	5
From	20,123 20,107	Between Perfs 35 21	5 5	19,951 19,928	Between Perfs 22 19	· 5	19,770 19,747	Between Perfs 23 22	5 5	19,576 19,565	Between Perfs 36 21	5 5	19,401 19,386	Between Perfs 30 22	5 5
From	20,123 20,107 20,086	Between Perfs 35 21 22	5 5 5	19,951 19,928 19,909	Between Perfs 22 19 26	· 5 5	19,770 19,747 19,725	Between Perfs 23 22 23	5 5 5	19,576 19,565 19,544	Between Perfs 36 21 22	5 5 5	19,401 19,386 19,364	Between Perfs 30 22 23	5 5 5
Bottom to	20,123 20,107 20,086 20,064	Between Perfs 35 21 22 23	5 5 5	19,951 19,928 19,909 19,883	Between Perfs 22 19 26 23	5 5 5	19,770 19,747 19,725 19,702	Between Perfs 23 22 23 22	5 5 5 5	19,576 19,565 19,544 19,522	Between Perfs 36 21 22 23	5 5 5	19,401 19,386 19,364 19,341	Between Perfs 30 22 23 22	5 5 5
Bottom to	20,123 20,107 20,086 20,064 20,041	Between Perfs 35 21 22 23 23	5 5 5 5	19,951 19,928 19,909 19,883 19,860	Between Perfs 22 19 26 23 22	5 5 5 5	19,770 19,747 19,725 19,702 19,680	Between Perfs 23 22 23 22 23	5 5 5 5 5	19,576 19,565 19,544 19,522 19,499	Between Perfs 36 21 22 23 25	5 5 5 5 5	19,401 19,386 19,364 19,341 19,319	Between Perfs 30 22 23 22 23	5 5 5 5
Bottom to	20,123 20,107 20,086 20,064	Between Perfs 35 21 22 23	5 5 5	19,951 19,928 19,909 19,883	Between Perfs 22 19 26 23	5 5 5	19,770 19,747 19,725 19,702	Between Perfs 23 22 23 22	5 5 5 5	19,576 19,565 19,544 19,522	Between Perfs 36 21 22 23	5 5 5	19,401 19,386 19,364 19,341	Between Perfs 30 22 23 22	5 5 5
Bottom to	20,123 20,107 20,086 20,064 20,041	Between Perfs 35 21 22 23 23	5 5 5 5	19,951 19,928 19,909 19,883 19,860	Between Perfs 22 19 26 23 22	5 5 5 5	19,770 19,747 19,725 19,702 19,680	Between Perfs 23 22 23 22 23	5 5 5 5 5	19,576 19,565 19,544 19,522 19,499	Between Perfs 36 21 22 23 25	5 5 5 5 5	19,401 19,386 19,364 19,341 19,319	Between Perfs 30 22 23 22 23	5 5 5 5
Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996	Between Perfs 35 21 22 23 23 22	5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815	Perfs 22 19 26 23 22 23	5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635	Perfs 23 22 23 22 23 22 23 22 23 22 23 22	5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454	Between Perfs 36 21 22 23 25 20	5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296	Between Perfs 30 22 23 22 23 23 23	5 5 5 5 5
Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996	Between Perfs 35 21 22 23 23 22 23	5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793	Between Perfs 22 19 26 23 22 23 22	5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612	Between Perfs 23 22 23 22 23 22 23 22 23	5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431	Between Perfs 36 21 22 23 25 20 23	5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251	8etween Perfs 30 22 23 22 23 22 23 22 23	5 5 5 5 5 5 5
Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plu	Between Perfs 35 21 22 23 23 22 23 79	5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug	Between Perfs 22 19 26 23 22 23 22 79	5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plus	Between Perfs 23 22 23 22 23 22 23 22 23 24 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plue	Between Perfs 36 21 22 23 25 20 23 72	5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plus	Between Perfs 30 22 23 22 23 22 23 22 79	5 5 5 5 5 5 5 5
From Bottom to Fop	20,123 20,107 20,086 20,064 20,041 20,018 19,996	Between Perfs 35 21 22 23 23 22 23 79	5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793	Between Perfs 22 19 26 23 22 23 22 79	5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612	Between Perfs 23 22 23 22 23 22 23 22 23 24 24 24 24 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431	Between Perfs 36 21 22 23 25 20 23 72	5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251	Between Perfs 30 22 23 22 23 22 23 22 79	5 5 5 5 5 5 5
Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plu	Between Perfs 35 21 22 23 23 22 23 D143 Distance Between	5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug	Between Perfs 22 19 26 23 22 23 22 79 19,962 Distance Between	5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plus	Between Perfs 23 22 23 22 23 22 23 B4 4 19,786 Distance Between	5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plue	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between	5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plus	Between Perfs 30 22 23 23 22 23 22 D19,420 Distance Between	5 5 5 5 5 5 5 5
ottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug	Between Perfs 35 21 22 23 23 22 23 20,143 Distance Between Perfs	5 5 5 5 5 5 5 5 5 7 5 5 7 5 7 7 7 7 8 7 8	19,951 19,928 19,909 19,880 19,880 19,838 19,815 19,793 Plug to Plug	Between Perfs 22 19 26 23 22 23 22 79 19,962 Distance Between Perfs	5 5 5 5 5 5 5 5 5 5 7 7 7 40 Total Shots	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plug	Between Perfs 23 22 23 22 23 22 23 Distance Between Perfs	5 5 5 5 5 5 5 5 5 40 Total Shots	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plug	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs	5 5 5 5 5 5 5 5 5 40 Total Shots	19,401 19,386 19,364 19,349 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug	Between Perfs 30 22 23 22 23 22 23 22 Distance Between Perfs	5 5 5 5 5 5 5 5 5 7 7 7 7 7 8 8 8 8 8 9 8 9 9 9 9 9 9 9 9
ottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug	Between Perfs 35 21 22 23 23 22 23 79 20,143 Distance Between Perfs 23	5 5 5 5 5 5 5 5 40 Total Shots	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug	Between Perfs 22 19 26 23 22 23 22 79 19,962 Distance Between Perfs 34	5 5 5 5 5 5 5 5 5 5 40 Total Shots	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,615 19,615 19,612 18,860	Between Perfs 23 22 23 22 23 22 23 22 Distance Between Perfs 30	5 5 5 5 5 5 5 5 5 40 Total Shots	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plug	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug	Between Perfs 30 22 23 22 23 22 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 7 7 7 7 8 8 8 8 8 8 8 8
optom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug	Between Perfs 35 21 22 23 23 24 Distance Between Perfs 23 24 24	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug	Between Perfs 22 19 26 23 22 23 22 23 22 Distance Between Perfs 34 22	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plug Frac Plug	Between Perfs 23 22 22 23 22 23 22 23 D154nce Between Perfs 30 23	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,431 Plug to Plug Frac Plug	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28 23	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug	Between Perfs 30 22 23 22 23 22 24 25 25 25 25 25 25	5 5 5 5 5 5 5 5 7 7 7 7 7 8 8 8 8 8 8 8
optom to	20,123 20,107 20,086 20,064 20,064 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,206 19,182	Between Perfs 35 21 22 23 23 22 23 29 20,143 Distance Between Perfs 24 21 21	5 5 5 5 5 5 5 5 5 7 5 40 Total Shots	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,025 19,003	Between Perfs 22 19 26 23 22 23 22 Distance Between Perfs 34 22 23 23	. 5 5 5 5 5 5 5 5 5 5 7 5 7 7 40 Total Shots	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plur Frac Plug 18,860 18,845 18,822	Between Perfs 23 22 23 22 23 22 23 24 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 7 7 7 7 7 7 8 8 9 8 9 9 9 9 9 9 9 9 9 9	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plug Frac Plug 18,664 18,664 18,664	Between Perfs 36 21 22 23 25 20 23 25 20 Distance Between Perfs 28 23 22 22	5 5 5 5 5 5 5 5 5 7 7 40 Total Shots	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461	Between Perfs 30 22 23 22 23 22 24 25	5 5 5 5 5 5 5 Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to	20,123 20,107 20,064 20,064 20,041 20,018 19,993 Plug to Plug Frac Plug 19,228 19,228 19,182 19,161	Between Perfs 35 21 22 23 23 22 23 20,143 Distance Between Perfs 23 24 21 23	5 5 5 5 5 5 5 40 Total Shots	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,036 19,003 11,980	Between Perfs 22 22 19 26 23 22 23 22 24 25 25 26 26 26 27 27 27 27 27	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,632 19,612 Plug to Plug Frac Plug 18,860 18,845 18,845 18,822 18,799	Between Perfs 23 22 23 22 23 22 23 24 25 25 26 26 26 26 26 26	5 5 5 5 5 5 5 5 5 40 Total Shots	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plug Frac Plug 18,681 18,664 18,664 18,619	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28 23 22 23	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,438	Between Perfs 30 22 23 23 22 25 29 19,420 Distance Between Perfs 32 21 23 23 22 21 23 23 22 21 23 22 21	5 5 5 5 5 5 Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to	20,123 20,107 20,086 20,064 20,064 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,206 19,182	Between Perfs 35 21 22 23 23 22 23 29 20,143 Distance Between Perfs 24 21 21	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Pluy Frac Plug 19,036 19,025 19,003 18,980 18,980	Between Perfs 22 19 26 23 22 23 22 79 19,962 Distance Between Perfs 34 22 23 23 23 22 23 22 23 22 23 22 23 22 23 22	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,635 19,612 Plug to Pluy Frac Plug 18,860 18,845 18,822 18,799	Between Perfs 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,451 Plug to Plug Frac Plug 18,661 18,664 18,664 18,669 18,679	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28 23 22 23 21	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Pluy Frac Plug 18,500 18,482 18,481 18,438	Between Perfs 30 22 23 22 23 22 24 25 25 26 26 26 26 26 26	5 5 5 5 5 5 5 5 7 5 7 5 7 5 8 7 8 8 8 8
From Bottom to	20,123 20,107 20,064 20,064 20,041 20,018 19,993 Plug to Plug Frac Plug 19,228 19,228 19,182 19,161	Between Perfs 35 21 22 23 23 22 23 20,143 Distance Between Perfs 23 24 21 23	5 5 5 5 5 5 5 40 Total Shots	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,036 19,003 11,980	Between Perfs 22 22 19 26 23 22 23 22 24 25 25 26 26 26 27 27 27 27 27	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,632 19,612 Plug to Plug Frac Plug 18,860 18,845 18,845 18,822 18,799	Between Perfs 23 22 23 22 23 22 23 24 25 25 26 26 26 26 26 26	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plug Frac Plug 18,681 18,664 18,664 18,619	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28 23 22 23	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,438	Between Perfs 30 22 23 23 22 25 29 19,420 Distance Between Perfs 32 21 23 23 22 21 23 23 22 21 23 22 21	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
rom	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,228 19,182 19,182 19,181 19,138	Between Perfs 35 21 22 23 23 22 23 20 21 22 23 23 24 21 22 23 24 21 23 24 21 23 23 23	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Pluy Frac Plug 19,036 19,025 19,003 18,980 18,980	Between Perfs 22 19 26 23 22 23 22 79 19,962 Distance Between Perfs 34 22 23 23 23 22 23 22 23 22 23 22 23 22 23 22	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,635 19,612 Plug to Pluy Frac Plug 18,860 18,845 18,822 18,799	Between Perfs 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,451 Plug to Plug Frac Plug 18,661 18,664 18,664 18,669 18,679	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28 23 22 23 21	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Pluy Frac Plug 18,500 18,482 18,481 18,438	Between Perfs 30 22 23 22 23 22 24 25 25 26 26 26 26 26 26	5 5 5 5 5 5 5 5 5 7 5 7 5 8 7 7 7 8 8 8 8
rom	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,206 19,182 19,138 19,115 19,093	Between Perfs 35 21 22 23 23 22 23 79 20,143 Distance Between Perfs 23 24 21 23 23 24 21 23 23 23	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,815 19,015 19,036 19,025 19,003 18,980 18,997 18,935	Between Perfs 22 19 26 23 22 23 22 79 19,962 Distance Between Perfs 34 22 23 22 23 22 23 22 23	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,779 18,777 18,754 18,732	Between Perfs 23 22 23 22 23 22 23 B4 19,786 Distance Between Perfs 30 23 23 23 23 22 23 22 23	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,431 Plug to Plug Frac Plug 18,664 18,664 18,661 18,575 18,555	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28 23 22 23 21 24	5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,273 19,18 18,500 18,482 18,461 18,438 18,416 18,393	Between Perfs 30 22 23 22 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
rom	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,206 19,182 19,161 19,135 19,193 19,093	Between Perfs 35 21 22 23 23 23 29 29 20,143 Distance Between Perfs 23 24 21 23 23 23 23 23 23 23 23 23 23 23 23	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,025 19,003 18,980 18,955 18,955 18,912 18,890	Between Perfs 22 19 26 23 22	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,775 18,754 18,732 18,709	Between Perfs 23 22 23 22 23 22 23 B44 19,786 Distance Between Perfs 30 23 22 23 22 23 22 23 22 23	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,431 Plug to Plug Frac Plug 18,664 18,664 18,619 18,555 18,555 18,532	Between Perfs 36 21 22 23 25 20 23 25 19,594 Distance Between Perfs 28 23 22 23 21 24 19	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,364 19,341 19,341 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,438 18,416 18,393 18,371 18,348	Between Perfs 30 22 23 22 23 22 24 25 25 25 26 26 26 26 26	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
rom	20,123 20,107 20,064 20,064 20,041 20,018 19,973 Plug to Plug Frac Plug 19,228 19,182 19,181 19,138 19,115 19,093 19,097 Plug to Plug	Between Perfs 35 21 22 23 23 23 79 20,143 Distance Between Perfs 23 24 21 23 24 27 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,003 18,980 18,997 18,995 18,995 18,995 18,995 18,995	Between Perfs 22 19 26 23 22 23 22 23 22 23 22 23 22 23 22 73 22 73 22 73 22 73 22 73 22 73 22 73 22 73 22 73 22 73 22 73 73	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,777 18,752 18,709 Plug to Plug	Between Perfs 23 22 23 22 23 24 25 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 40 Total Shots	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plug Frac Plug 18,664 18,664 18,669 18,575 18,592 18,552 Plug to Plu	Between Perfs 36 21 22 23 25 20 23 25 20 23 25 20 23 21 24 19 79	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,438 18,416 18,393 18,311 18,348 Plug to Plu	Between Perfs 30 22 23 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,206 19,182 19,161 19,135 19,193 19,070	Between Perfs 35 21 22 23 23 23 79 20,143 Distance Between Perfs 23 24 21 23 24 27 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,025 19,003 18,980 18,955 18,955 18,912 18,890	Between Perfs 22 19 26 23 22	5 5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,775 18,754 18,732 18,709	Between Perfs 23 22 23 22 23 24 19,786 Distance Between Perfs 30 23 23 22 23 22 23 22 23 22 23 79	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 40 Total Shots	19,576 19,565 19,544 19,522 19,499 19,474 19,431 Plug to Plug Frac Plug 18,664 18,664 18,619 18,555 18,555 18,532	Between Perfs 36 21 22 23 25 20 23 25 20 23 25 20 23 21 24 19 79	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,364 19,341 19,341 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,438 18,416 18,393 18,371 18,348	Between Perfs 30 22 23 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to	20,123 20,107 20,064 20,064 20,041 20,018 19,973 Plug to Plug Frac Plug 19,228 19,182 19,181 19,138 19,115 19,093 19,097 Plug to Plug	Between Perfs 35 21 22 23 23 22 23 25 25 25	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,003 18,980 18,997 18,995 18,995 18,995 18,995 18,995	Between Perfs 22 19 26 23 22 23 22 25 23 22 23 22 23 22 23 22 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,777 18,752 18,709 Plug to Plug	Between Perfs 23 22 23 22 23 24 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 40 Total Shots	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 Plug to Plug Frac Plug 18,664 18,664 18,669 18,575 18,592 18,552 Plug to Plu	Between Perfs 36 21 22 23 25 20 23 25 20 23 24 24 24 25 26 27 27 27 28 27 27 27 28 27 27	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,438 18,416 18,393 18,311 18,348 Plug to Plu	Between Perfs 30 22 23 22 23 22 24 25 25 25 26 26 26 26 26	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,206 19,182 19,181 19,115 19,138 19,115 19,093 19,007 Plug to Plug	Between Perfs 35 21 22 23 23 22 23 25 25 25	5 5 5 5 5 5 5 5 7 otal Shots Shots 5 5 5 5 5 5 5 40 7 otal Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Pluy Frac Plug 19,036 19,025 19,003 18,980 18,957 18,992 18,990 Plug to Pluy Frac Plug	Between Perfs 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 25 25	5 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,635 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,777 18,754 18,732 18,709 Plug to Plug Frac Plug	Between Perfs 23 22 23 22 23 24 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,454 18,681 18,681 18,684 18,664 18,675 18,575 18,555 18,555 18,555 18,555 18,552 Plug to Plug	Between Perfs 36 21 22 23 25 20 23 27 29 29 29 20 20 20 20 20	5 5 5 5 5 5 5 40 Total Shots 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,364 19,364 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,481 18,481 18,483 18,416 18,393 18,371 18,383	Between Perfs 30 22 23 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,975 19,228 19,226 19,182 19,182 19,115 19,093 19,070 Plug to Plug	Between Perfs 35 21 22 23 23 22 23 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 40 Total Shots 5 5 5 40 Total Shots 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,833 19,860 19,838 19,815 19,739 19ug to Plug 19,036 19,025 19,003 18,980 18,997 18,995 18,991 18,890 11,890 11,890 11,890	Between Perfs 22 19 26 23 22 23 22 25 23 22 23 22 23 22 23 22 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Pluy Frac Plug 18,860 18,845 18,822 18,709 18,777 18,754 18,709 Plug to Pluy Frac Plug	Between Perfs 23 22 23 22 23 24 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 18,681 18,664 18,664 18,641 18,596 18,575 18,551 18,532 Plug to Plug	Between Perfs 36 21 22 23 25 20 23 25 20 23 24 24 24 25 26 27 27 27 28 27 27 27 28 27 27	5 5 5 5 5 5 5 40 Total Shots 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Pluy Frac Plug 18,451 18,482 18,461 18,493 18,371 18,383 18,371 18,748 18,478 18,478 18,478 18,478 18,478	Between Perfs 30 22 23 22 23 22 24 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,266 19,182 19,161 19,183 19,115 19,093 19,070	Between Perfs 35 21 22 23 23 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 7 otal Shots Shots 5 5 5 5 5 5 5 40 7 otal Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Pluy Frac Plug 19,036 19,025 19,003 18,980 18,957 18,992 18,990 Plug to Pluy Frac Plug	Between Perfs 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 25 25	5 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,635 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,777 18,754 18,732 18,709 Plug to Plug Frac Plug	Between Perfs 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 23	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,454 18,681 18,681 18,684 18,664 18,675 18,575 18,555 18,555 18,555 18,555 18,552 Plug to Plug	Between Perfs 36 21 22 23 25 20 23 27 29 29 29 20 20 20 20 20	5 5 5 5 5 5 5 40 Total Shots 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,364 19,364 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,481 18,481 18,483 18,416 18,393 18,371 18,383	Between Perfs 30 22 23 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Sottom to	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug Frac Plug 19,228 19,206 19,182 19,115 19,093 19,070 Plug to Plu Frac Plug	Between Perfs 35 21 22 23 23 24 21 23 24 21 23 24 21 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,025 19,003 18,980 18,997 18,995 18,912 18,890 Plug to Plug Frac Plug	Between Perfs 22 23 22 22	5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Plu Frac Plug 18,845 18,825 18,799 18,777 18,754 18,732 18,709 Plug to Plu Frac Plug 17,958 17,944	Between Perfs 23 22 23 22 23 84 19,786 Distance Between Perfs 30 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,451 19,431 Plug to Plug Frac Plug 18,664 18,661 18,669 18,575 18,551 18,532 Plug to Plug Frac Plug 17,778	Between Perfs 36 21 22 23 25 20 23 72 19,594 Distance Between Perfs 28 23 22 24 19 79 18,698 Distance Between Perfs 28 23 22 24 24 29 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 40 Total Shots 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,219 19,273 19,190 18,410 18,430 18,430 18,431 18,438 18,371 18,348 19,190 17,600 17,580	Between Perfs 30 22 23 22 23 22 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 40 Total Sh 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Sottom to op	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,996 19,190 Plug 19,228 19,206 19,182 19,181 19,193 19,170 19,190 19,1	Between Perfs 35 21 22 23 23 23 29 20,143 Distance Between Perfs 23 24 21 23 24 21 23 29 19,240 Distance Between Perfs 23 24 21 23 23 24 21 23 23 24 21 23 23 24 21 23 24 21 23 23 24 21 23 25 26 27 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,833 19,860 19,838 19,815 19,739 19ug to Plug 19,036 19,025 19,003 18,980 18,995 18,995 18,912 18,890 19,025 18,912 18,935 18,912 18,890 19,036 19,036 18,912 18,935 18,912 18,890 18,912 18,890 19,036 19,036 18,912 18,912 18,890 19,036 18,912 18,890 19,036 18,912 18,890 19,036 18,912 18,890 19,036 19,036 18,912 18,912 18,890 19,036 19,036 19,036 18,912 18,912 18,890 19,036 19,	Between Perfs 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 23 22 23 25 25	5 5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,615 19,612 18,860 18,845 18,822 18,709 18,777 18,754 18,732 18,709 1ug to Plug 17,958 17,944 17,919	Between Perfs 23 22 23 22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,431 18,681 18,664 18,664 18,641 18,596 18,575 18,551 18,552 Plug to Plug 17,778 17,761 17,739	Between Perfs 36 21 22 23 25 20 23 25 20 23 25 20 23 25 20 23 21 24 29 25 25 20 25 25 20 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,364 19,364 19,319 19,296 19,273 19,251 Plug to Plug 18,500 18,482 18,461 18,393 18,371 18,348 Plug to Plug Frac Plug 18,750 18,750 18,750 18,750 18,750 18,750 18,750 17,550	Between Perfs 30 22 23 23 22 22 23 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to op	20,123 20,107 20,064 20,064 20,041 20,018 19,993 19,995 19,228 19,182 19,181 19,138 19,115 19,093 19,070 Plug to Plug Frac Plug	Between Perfs 35 21 22 23 23 22 23 25 25 25	5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,038 19,003 18,980 18,997 18,995	Between Perfs 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 23 22 23 23 22 23 23 24 25 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,632 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,777 18,752 18,709 Plug to Plug Frac Plug 17,958 17,944 17,919	Between Perfs 23 22 23 22 23 24 25 25 25 25 25 25 25	5 5 5 5 5 5 6 7 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,454 18,664 18,664 18,664 18,669 18,575 18,552 Plug to Plug Frac Plug 17,778 17,778 17,778	Between Perfs 36 21 22 23 25 20 23 25 20 23 25 20 23 21 24 24 19 25 28 22 28 28 22 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29	5 5 5 5 5 5 5 5 40 Total Shots \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,416 18,438 18,416 18,393 18,318 18,416 18,393 18,318 18,416 18,753	Between Perfs 30 22 23 22 23 22 24 25 25 25 26 25 26 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Bottom to op	20,123 20,107 20,064 20,064 20,041 20,018 19,993 Plug to Plug 19,228 19,206 19,182 19,161 19,138 19,115 19,093 19,070 Plug to Plug Frac Plug 19,138 19,115 19,093 19,070 Plug to Plug 18,318 18,303 18,280 18,288 18,232	Between Perfs 35 21 22 23 23 27 20,143 27 27 27 27 27 27 27 2	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,715 19,703 19,036 19,025 19,003 18,980 18,957 18,935 18,915 18,915 18,915 18,145 18,122 18,100 18,077 18,055	Between Perfs 22 23 22 20 20	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,632 19,612 lug to Plug Frac Plug 18,860 18,845 18,852 18,799 18,777 18,754 18,732 18,709 lug to Plug 17,958 17,944 17,919 17,896 17,874	Between Perfs 23 22 23	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,454 18,661 18,664 18,664 18,664 18,675 18,575 18,557 18,575 18,575 18,577 18,776 17,769 17,778	Between Perfs 36 21 22 23 25 20 23 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 25 20 25 25 20 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,384 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,401 18,482 18,416 18,393 18,371 18,348 Plug to Plug Frac Plug 17,600 17,550 17,555 17,513	Between Perfs 30 22 23 22 23 22 24 25 25 25 26 25 26 25 26 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Bottom to	20,123 20,107 20,064 20,064 20,041 20,018 19,993 19,995 19,228 19,182 19,181 19,138 19,115 19,093 19,070 Plug to Plug Frac Plug	Between Perfs 35 21 22 23 23 22 23 25 25 25	5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,038 19,003 18,980 18,997 18,995	Between Perfs 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 25 25	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,632 19,612 Plug to Plug Frac Plug 18,860 18,845 18,822 18,799 18,777 18,752 18,709 Plug to Plug Frac Plug 17,958 17,944 17,919	Between Perfs 23 22 23 22 23 24 25 25 25 25 25 25 25	5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,454 18,664 18,664 18,664 18,669 18,575 18,552 Plug to Plug Frac Plug 17,778 17,778 17,778	Between Perfs 36 21 22 23 25 20 23 25 20 23 25 20 23 21 24 24 19 25 28 22 28 28 22 28 28 29 29 29 29 29 29 29 29 29 29 29 29 29	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,493 18,371 18,393 18,371 18,394 18,753 17,500 17,558	Between Perfs 30 22 23 22	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Sottom to Top	20,123 20,107 20,064 20,064 20,041 20,018 19,993 Plug to Plug 19,228 19,206 19,182 19,161 19,138 19,115 19,093 19,070 Plug to Plug Frac Plug 19,138 19,115 19,093 19,070 Plug to Plug 18,318 18,303 18,280 18,288 18,232	Between Perfs 35 21 22 23 23 27 20,143 27 27 27 27 27 27 27 2	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,715 19,703 19,036 19,025 19,003 18,980 18,957 18,935 18,915 18,915 18,915 18,145 18,122 18,100 18,077 18,055	Between Perfs 22 23 22 20 20	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,632 19,612 lug to Plug Frac Plug 18,860 18,845 18,852 18,799 18,777 18,754 18,732 18,709 lug to Plug 17,958 17,944 17,919 17,896 17,874	Between Perfs 23 22 23	5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,454 18,661 18,664 18,664 18,664 18,675 18,575 18,557 18,575 18,575 18,577 18,776 17,769 17,778	Between Perfs 36 21 22 23 25 20 23 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 25 20 25 25 20 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,384 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,401 18,482 18,416 18,393 18,371 18,348 Plug to Plug Frac Plug 17,600 17,550 17,555 17,513	Between Perfs 30 22 23 22 23 22 24 25 25 25 26 25 26 25 26 25 25	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Sottom to Top	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug 19,228 19,266 19,182 19,161 19,138 19,115 19,093 19,070 19,070 19,182 19,181 19,181 19,181 19,181 19,181 19,181 19,181 19,182 19,181 19,181 19,181 19,181 19,181 19,181 19,181 19,181 19,181 18,181 18,303 18,280 18,282 18,213 18,190	Between Perfs 35 21 22 23 23 29 79 20,143 Distance Between Perfs 23 24 21 23 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,025 19,003 18,980 18,957 18,935 18,912 18,890 Plug to Plug Frac Plug 18,890 18,957 18,935 18,912 18,800 18,957 18,935 18,912 18,800 18,957 18,935 18,912 18,800 18,957 18,935 18,912 18,800 18,957 18,935 18,912 18,145 18,122 18,100 18,077 18,055 18,035	Between Perfs 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 24 25 25 25 25 25 25	5 5 5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,612 Plug to Pluy Frac Plug 18,860 18,845 18,822 18,799 18,777 18,754 18,732 18,709 18,777 18,754 17,958 17,944 17,919 17,896 17,8764 17,876 17,8764 17,876	Between Perfs 23 22 23 22 23 24 25 28 84 19,786 Distance Between Perfs 30 23 22 23	5 5 5 5 5 5 5 40 Total Shots 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,451 18,661 18,664 18,664 18,675 18,551 18,532 17,778 17,778 17,778 17,778 17,761 17,739 17,776 17,693 17,671 17,645	Between Perfs 36 21 22 23 25 20 23 25 20 23 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 25 20 25 25 25 25 25 25 25 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,500 18,482 18,461 18,493 18,371 18,393 18,371 18,394 18,753 17,500 17,558	Between Perfs 30 22 23 22	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
From Sottom to Top	20,123 20,107 20,086 20,064 20,041 20,018 19,996 19,973 Plug to Plug 19,228 19,262 19,161 19,138 19,115 19,093 19,107 Plug to Plug Frac Plug 18,318 18,318 18,330 18,280 18,282 18,232 18,213	Between Perfs 35 21 22 23 23 29 79 20,143 Distance Between Perfs 23 24 21 23 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,951 19,928 19,909 19,883 19,860 19,838 19,815 19,793 Plug to Plug Frac Plug 19,036 19,025 19,003 18,980 18,957 18,992 18,992 18,992 18,992 18,890 Plug to Plug Frac Plug 18,800 18,035 18,145 18,145 18,122 18,1007 18,077	Between Perfs 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 24 25 25 25 25 25 25	5 5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,770 19,747 19,725 19,702 19,680 19,657 19,635 19,635 19,612 lug to Pluy Frac Plug 18,860 18,845 18,732 18,732 18,732 18,799 18,777 18,754 17,958 17,944 17,919 17,856 17,874 17,851	Between Perfs 23 22 23 22 23 24 25 28 84 19,786 Distance Between Perfs 30 23 22 23	5 5 5 5 5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,576 19,565 19,544 19,522 19,499 19,474 19,454 19,454 19,454 19,451 18,681 18,664 18,664 18,675 18,555 18,555 18,575 18,776 17,778 17,776 17,736 17,776 17,739 17,776	Between Perfs 36 21 22 23 25 20 23 25 20 23 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 20 25 25 20 25 25 25 25 25 25 25 25 25 25 25 25 25	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	19,401 19,386 19,364 19,341 19,319 19,296 19,273 19,251 Plug to Plug Frac Plug 18,451 18,482 18,461 18,493 18,371 18,484 18,416 18,993 18,371 18,753 17,500 17,558 17,553 17,533 17,490 17,470	Between Perfs 30 22 23 23 22 23 23	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

	13 wage 0 i 1	Distance Between Perfs	Shots	Stage ba	Distance Between Perfs	Shots	diogetia	Distance Between Perfs	Shots	[72] ga 38	Distance Between Perfs	Shots	Stangun	Distance Between Perfs	Shots
	17,420	27	5	17,232	32	5	17,054	30	5	16,875	28	5	16,690	33	5
F	17,402	25	. 5	17,219	22	-5	17,039	23	5	16,858	22	5	16,678	23	- 5
From Bottom to	17,377	26	5	17,197	23	5	17,016	20	5	16,836	23	5 "	16,655	23	5
Тор	17,331	19 22	5	17,174	23	5	16,996	25	5	16,813	23	5	16,632	22	5
-	17,332 17,310	23	5	17,151 17,129	22	5	16,971 16,945	26 19	5	16,790 16,768	22 23	5 5	16,610 16,587	23 22	5 5
	17,287	23	5	17,106	22	5	16,926	23	.5	16,745	22	5	16,565	23	5
	17,264		5	17,084		- 5	16,903		5	16,723		5	16,542		5
	Plug to Plug	81	40	Plug to Plug	79	40	lug to Plu	70	40	Plug to Plug	79	40	Plug to Plug	79	40
	Frac Plug	17,432	Total Shots	Frac Plug	17,253	Total Shots	Frac Plug	17,066	Total Shots	Frac Plug	16,892	Total Shots	Frac Plug	16,711	Total Shot
					r		,								
	(3859+38)	Distance Between Perfs	Shots	segea/	Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots
	16,520	22	5	16,339	22	:5	16,156	25	5	15,970	30	5	15,797	23	5
	16,497	23	5	16,316	22	5	16,136	23	5	15,955	22	5	15,775	23	5
From	16,474	22	5	16,294	23	5	16,113	22	5	15,933	26	5	15,752	22	5 ~
Bottom to	16,452	23	5	16,271	22.	.5	16,091	23	5	15,907	19	5	15,730	23	5
	16,429	22	5	16,249	23	5	16,068	22	5 -	15,888	23	5	15,707	23	5
	16,407	23	5	16,226	26	5	16,046	23.	5	15,865	23	5.	15,684	22	.5
	16,384 16,361	23	5	16,200 16,181	19	5	16,023 16,000	23	5	15,842 15,820	22	5. °.	15,662 15,639	23	5 5
	Plug to Plus	82	40	Plug to Plu	79	40	Plug to Plu	79	40	Plug to Plug	82	40	Plug to Plus	79	40
	Frac Plug		Total Shots			Total Shots			Total Shots		15,989	Total Shots			Total Shot
,								- Water day	'	· · · · · · · · · · · · · · · · · · ·			<u> </u>	······································	
		Distance			Distance	81.4	i	Distance	01		Distance	01		Distance	O1-1-
		Between Perfs	Shots		Between Perfs	Shots	handye sa. L	Between Perfs	Shots		Between Perfs	Shots		Between Perfs	Shots
	15,605	34	5	15,426	33	5	15.255	23	Ś.	15.075	22	5	14,886	. 31	5
	15,594	23	5	15,413	22	5	15,233	23	5	15,052	20	- 5	14,872	23	. 5
From	15,571	22	5	15,391	18	5	15,210	22	5	15,032	25	5	14,849	22	5
Bottom to Top	10,045	23	5	15,373	27	5	15,188	23	. 5	15,007	22	5	14,827	23	5
·op	15,526	22	5.	15,346	23	5	15,165	22	5	14,985	23	5	14,804	23	5
	15,504	23	5	15,323	22										
						5	15,143	23	5	14,962	23	5	14,781	22	5
	15,481	22	5	15,301	23	- 5	15,120	- 23	5	14,939	22	-5	14,759	23	5 .
	15,459		5	15,301 15,278	23	· 5	15,120 15,097	- 23	5 - 5	14,939 14,917	22	.5 °	14,759 14,736	23	5
		79		15,301 15,278 Plug to Plu	23 65	- 5	15,120 15,097 Plug to Plu		5 - 5	14,939 14,917 Plug to Plu		-5	14,759 14,736 Plug to Plus	23 79	5 5 40
	15,459 Plug to Plug	79 15,628	5 40	15,301 15,278 Plug to Plu	65 15,438	5 5 40	15,120 15,097 Plug to Plu	79 15,267	5 - 5 40	14,939 14,917 Plug to Plu	79 15,086	5 5 40	14,759 14,736 Plug to Plus	79 14,906	5 5 40
	15,459 Plug to Plug	79	5 40	15,301 15,278 Plug to Plu	23 65	5 5 40	15,120 15,097 Plug to Plu	- 23 79	5 - 5 40	14,939 14,917 Plug to Plu	22 79	5 5 40	14,759 14,736 Plug to Plus	23 79	. 5 5
	15,459 Plug to Plug Frac Plug	79 15,628 Distance Between	5 40 Total Shots	15,301 15,278 Plug to Plug Frac Plug	23 65 15,438 Distance Between	5 '5 40 Total Shote	15,120 15,097 Plug to Plug Frac Plug	79 15,267 Distance Between	5 5 40 Total Shots	14,939 14,917 Plug to Plug Frac Plug	79 15,086 Distance Between	5 40 Fotal Shots	14,759 14,736 Plug to Plug Frac Plug	79 14,906 Distance Between	5 40 Total Shot
	15,459 Plug to Plug Frac Plug 14,708 14,691	79 15,628 Distance Between Perfs 28 22	5 40 Total Shots Shots 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511	23 65 15,438 Distance Between Perfs 30 23	5 5 40 Total Shots Shots	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330	79 15,267 Distance Between Perfs 25 23	5 5 40 Total Shots Shots 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149	79 15,086 Distance Between Perfs 30 22	5 40 Fotal Shots Shots	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969	79 14,906 Distance Between Perfs 33 23	5 40 Total Shots Shots 5
	15,459 Plug to Plug Frac Plug 14,708 14,691 14,669	79 15,628 Distance Between Perfs 28 22 22	5 40 Total Shots Shots 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488	23 65 15,438 Distance Between Perfs 30 23 23	5 5 40 Total Shots Shots 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307	79 15,267 Distance Between Perfs 25 23 22	5 40 Total Shots Shots 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127	79 15,086 Distance Between Perfs 30 22 25	5 40 Fotal Shots Shots	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946	79 14,906 Distance Between Perfs 33 23 22	5 5 40 Total Shots Shots 5 5 5 5
	15,459 Plug to Plug Frac Plug 14,708 14,691 14,669 14,647	79 15,628 Distance Between Perfs 28 22 22 24	5 40 Total Shots Shots 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465	23 65 15,438 Distance Between Perfs 30 23 23 22	5 40 Total Shots Shots 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285	23 79 15,267 Distance Between Perfs 25 23 22 23	5 40 Fotal Shots Shots 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102	79 15,086 Distance Between Perfs 30 22 25 20	5 40 Total Shots Shots	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924	79 14,906 Distance Between Perfs 33 23 22 20	5 5 40 Total Shots Shots 5 5 5 5 5 5
From Bottom to Top	15,459 Plug to Plug Frac Plug 14,708 14,691 14,669 14,647 14,623	79 15,628 Distance Between Perfs 28 22 22 24 22	5 40 Total Shots Shots 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465	23 65 15,438 Distance Between Perfs 30 23 23 22 23	5 40 Total Shots Shots 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262	79 15,267 Distance Between Perfs 25 23 22 23 22	5 5 40 Total Shots Shots 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082	79 15,086 Distance Between Perfs 30 22 25 20 24	5 40 Fotal Shots Shots 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904	79 14,906 Distance Between Perfs 33 23 22 20 25	5 40 Fotal Shots Shots 5 5 5
Bottom to	15,459 Plug to Plug Frac Plug 14,708 14,691 14,669 14,647 14,623 14,601	79 15,628 Distance Between Perfs 28 22 22 24 22 24 22 23	5 40 Total Shots Shots 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420	23 65 15,438 Distance Between Perfs 30 23 23 22 23 22	5 40 Total Shots Shots 5 5 5 5	15,120 15;097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240	79 15,267 Distance Between Perfs 25 23 22 23 22 23	5 40 Total Shots Shots 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082 14,058	79 15,086 Distance Between Perfs 30 22 25 20 24 21	5 40 Total Shots Shots 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879	23 79 14,906 Distance Between Perfs 33 23 22 20 25 22	5 40 Total Shots Shots 5 5 5 5
Bottom to	15,459 Plug to Plug Frac Plug 14,708 14,691 14,669 14,647 14,623 14,601 14,578	79 15,628 Distance Between Perfs 28 22 22 24 22	5 40 Total Shots Shots 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398	23 65 15,438 Distance Between Perfs 30 23 23 22 23	5 6 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217	79 15,267 Distance Between Perfs 25 23 22 23 22	5 40 Total Shots Shots 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082 14,058 14,037	79 15,086 Distance Between Perfs 30 22 25 20 24	5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,904 13,879 13,879	79 14,906 Distance Between Perfs 33 23 22 20 25	5
Bottom to Top	15,459 Plug to Plug Frac Plug 14,708 14,689 14,669 14,623 14,601 14,578 14,556	79 15,628 Distance Between Perfs 28 22 22 24 22 24 22 23	5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,445 14,443 14,420 14,398 14,375	23 65 15,438 Distance Between Perfs 30 23 22 22 23 22 23 22	5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217	79 15,267 Distance Between Perfs 25 23 22 23 22 23	5 40 Total Shots Shots 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082 14,037 14,014	79 15,086 Distance Between Perfs 30 22 25 20 24 21	5 40 Total Shots Shots 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,924 13,904 13,877 13,877 13,833	23 79 14,906 Distance Between Perfs 33 23 22 20 25 22	5 40 Total Shots Shots 5 5 5 5
Bottom to Top	15,459 Plug to Plug Frac Plug 14,708 14,691 14,669 14,647 14,623 14,601 14,578	79 15,628 Distance Between Perfs 28 22 22 24 22 23 22 23 22	5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398 14,375 Plug to Plug	23 65 15,438 Distance Between Perfs 30 23 23 22 23 22 23 79	5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug	79 15,267 Distance Between Perfs 25 23 22 23 22 23 22 23 22	5 40 Total Shots Shots 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,185 14,149 14,127 14,102 14,082 14,058 14,037 14,014 14,014	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23	5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plu Frac Plug 13,981 13,969 13,924 13,904 13,879 13,879 13,879 13,879	79 14,906 Distance Between Perfs 33 22 20 25 22 24 79	5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Bottom to Top	15,459 Plug to Plut Frac Plug 14,708 14,669 14,667 14,623 14,607 14,578 14,578 14,578	79 15,628 Distance Between Perfs 28 22 24 22 23 22 78 14,725	5 40 Total Shots Shots 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398 14,375 Plug to Plug	23 65 15,438 Distance Between Perfs 30 23 22 23 22 23 22 23 79	5 40 Total Shots Shots 5 5 5 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug	23 79 15,267 Distance Between Perfs 25 23 22 23 22 79 14,364	5 40 Total Shots Shots 5 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,185 14,149 14,127 14,102 14,082 14,058 14,037 14,014 14,014	79 15,086 Distance Between Perfs 30 22 55 20 24 21 23 74 14,176	5 5 40 Fotal Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plu Frac Plug 13,981 13,969 13,924 13,904 13,879 13,879 13,879 13,879	79 14,906 Distance Between Perfs 33 22 20 25 22 24 79 14,003	5 40 Total Shots Shots 5 5 5 5 5 5
Bottom to Top	15,459 Plug to Plut Frac Plug 14,708 14,669 14,667 14,623 14,607 14,578 14,578 14,578	79 15,628 Distance Between Perfs 28 22 24 22 24 22 33 22 78 14,725 Distance Between	5 40 Total Shots Shots 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398 14,375 Plug to Plug	23 65 15,438 Distance Between Perfs 30 23 23 22 23 22 23 79	5 40 Total Shots Shots 5 5 5 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug	79 15,267 Distance Between Perfs 25 23 22 23 22 23 22 79	5 40 Total Shots Shots 5 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,185 14,149 14,127 14,102 14,082 14,058 14,037 14,014 14,014	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23	5 5 40 Fotal Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plu Frac Plug 13,981 13,969 13,924 13,904 13,879 13,879 13,879 13,879	79 14,906 Distance Between Perfs 33 22 20 25 22 24 79	5 40 Total Shots Shots 5 5 5 5 5 5 5 5 40
Bottom to Top	15,459 Plug to Plug Frac Plug 14,708 14,691 14,669 14,623 14,601 14,578 14,556 Plug to Plug	79 15,628 Distance Between Perfs 28 22 24 22 23 22 78 14,725 Distance Between Perfs 28	5 40 Total Shots \$ 5 5 5 5 40 Total Shots \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398 14,378 14,378 14,378 14,378 14,378	23 65 15,438 Distance Between Perfs 30 23 22 23 22 23 79 14,544 Distance Between Perfs 23	5 6 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug Frac Plug	79 15,267 Distance Between Perfs 25 23 22 23 22 79 14,364 Distance Between Perfs 25 25 25 25 26 27 27 27 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082 14,037 14,014 Plug to Plug Frac Plug	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,176 Distance Between Perfs 21	5 5 40 Fotal Shots 5 5 5 5 5 5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between	5 5 40 Shots 5
Bottom to Top	15,459 Plug to Pluf Frac Plug 14,708 14,691 14,669 14,647 14,621 14,556 Plug to Pluf Frac Plug 13,805 13,788	79 15,628 Distance Between Perfs 28 22 22 24 22 23 32 22 T8 14,725 Distance Between Perfs 28 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 22 23 22 22 23 22 23 22 22	5 40 Total Shots 5 5 5 5 5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398 14,375 Plug to Plug Frac Plug	23 65 15,438 Distance Between Perfs 30 23 22 23 22 23 Distance Between Perfs 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 23	5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,217 14,195 Plug to Plug Frac Plug	79 15,267 Distance Between Pers 25 23 22 23 22 23 22 Distance Between Pers 55 23 22 23 23	5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,088 14,037 14,014 Plug to Plug Frac Plug	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,176 Distance Between Perfs 21 22	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between Perfs	5 5 40 Shots 5
Bottom to Top	15,459 Plug to Plut Frac Plug 14,708 14,689 14,669 14,623 14,601 14,578 14,556 Plug to Plut Frac Plug	79 15,628 Distance Between Perfs 28 22 24 22 24 22 33 22 Distance Between Perfs 28 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 23	5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398 14,375 Plug to Plug Frac Plug	23 65 15,438 Distance Between Perfs 30 23 22 23 22 23 79 14,544 Distance Between Perfs 23 23 23 24 25 25 26 27 27 27 27 28 28 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20	5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,262 14,262 14,240 14,217 14,195 Plug to Plug Frac Plug	79 15,267 Distance Between Perfs 23 22	5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082 14,037 14,014 Plug to Plug Frac Plug	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,176 Distance Between Perfs 21 22 23	5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between Perfs	5, 40 Total Shots Shots 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5
Bottom to Top From Bottom to	15,459 Plug to Plut Frac Plug 14,708 14,689 14,669 14,623 14,601 14,578 14,556 Plug to Plut Frac Plug 13,768 13,766 13,743	79 15,628 Distance Between Perfs 28 22 24 22 23 22 78 14,725 Distance Between Perfs 28 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 24 22 23 22 23 22 28 22 28 22 28 22 23 22	5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,445 14,443 14,420 14,398 14,375 Plug to Plug Frac Plug 13,630 13,608 13,585 13,562	23 65 15,438 Distance Between Perfs 30 23 22 23 22 23 79 14,544 Distance Between Perfs 23 23 22	5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug Frac Plug 13,447 13,427 13,427 13,382	79 15,267 Distance Between Perfs 23 22 23 22 79 14,364 Distance Between Perfs 25 22 23	5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082 14,037 14,014 Plug to Plug Frac Plug 13,267 13,224 13,224	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,176 Distance Between Perfs 21 22 23 22	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between Perfs	5, 40 Total Shots Shots 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5
Bottom to Top From Bottom to	15,459 Plug to Plut Frac Plug 14,691 14,669 14,647 14,623 14,501 14,556 Plug to Plut Frac Plug 13,805 13,788 13,766 13,743 13,721	79 15,628 Distance Between Perfs 28 22 24 22 23 22 78 14,725 Distance Between Perfs 28 22 23 22 23 22 23 22 24 22 23 22 22 24 22 23 22 22 23 22 22 23 22 22 23 22 23 22 23 22 23 22 23	5 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug 14,526 14,511 14,488 14,445 14,443 14,429 14,375 Plug to Plug Frac Plug 13,630 13,688 13,585 13,562 13,540	23 65 15,438 Distance Between Perfs 30 23 22 23 22 23 79 14,544 Distance Between Perfs 23 23 22 23 22 23 22 23 22 23 22 23 23	5 6 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug Frac Plug 13,447 13,427 13,420 13,359	79 15,267 Distance Between Perfs 25 23 22 23 22 79 14,364 Distance Between Perfs 25 23 22 23 22 23 20 20 20 20 20 20 20 20 20 20 20 20 20	5 40 Total Shots \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,102 14,082 14,038 14,037 14,014 Plug to Plug Frac Plug 13,267 13,246 13,224 13,201 13,179	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,178 Distance Between Perfs 21 22 23 22 23	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between Perfs	5, 40 Total Shots Shots 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5
Bottom to Top From Bottom to	15,459 Plug to Plut Frac Plug 14,691 14,669 14,647 14,623 14,601 14,578 14,578 Plug to Plut Frac Plug 13,805 13,788 13,763 13,743 13,721 13,699	79 15,628 Distance Between Perfs 28 22 24 22 23 22 78 14,725 Distance Between Perfs 28 22 23 22 24 22 23 22 24 22 23 22 24	5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 lug to Plug Frac Plug 14,526 14,511 14,488 14,445 14,443 14,420 14,398 14,375 Plug to Plug Frac Plug 13,630 13,630 13,508 13,552 13,540 13,540 13,517	23 65 15,438 Distance Between Perfs 30 23 23 22 23 79 14,544 Distance Between Perfs 23 23 22 23 22 23 22 23 22 23 22 23 23	5 6 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug Frac Plug 13,447 13,427 13,427 13,349 13,359 13,339	79 15,267 Distance Between Perfs 25 23 22 23 22 79 14,364 Distance Between Perfs 25 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 25 25 25 26 27 27 28 20 20 25	5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,082 14,058 14,037 14,014 Plug to Plug Frac Plug 13,267 13,224 13,221 13,279 13,156	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,176 Distance Between Perfs 21 22 23 22 23 22	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between Perfs	5 5 40 Shots 5
Bottom to Top From Bottom to	15,459 Plug to Pluf Frac Plug 14,708 14,691 14,669 14,647 14,623 14,656 Plug to Pluf Frac Plug 13,805 13,788 13,766 13,743 13,721 13,699 13,675	79 15,628 Distance Between Perfs 28 22 24 22 23 22 78 14,725 Distance Between Perfs 28 22 23 22 23 22 23 22 24 22 23 22 22 24 22 23 22 22 23 22 22 23 22 22 23 22 23 22 23 22 23 22 23	5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 Plug to Plug Frac Plug to Plug 14,526 14,511 14,488 14,465 14,443 14,420 14,398 14,375 Plug to Plug Frac Plug 13,630 13,608 13,562 13,552 13,547 13,495	23 65 15,438 Distance Between Perfs 30 23 22 23 22 23 79 14,544 Distance Between Perfs 23 23 22 23 22 23 22 23 22 23 22 23 23	5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,217 14,195 Plug to Plug Frac Plug 13,447 13,427 13,427 13,404 13,359 13,339 13,314	79 15,267 Distance Between Perfs 25 23 22 23 22 79 14,364 Distance Between Perfs 25 23 22 23 22 23 20 20 20 20 20 20 20 20 20 20 20 20 20	5 40 Total Shots \$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,002 14,082 14,037 14,014 Plug to Plug Frac Plug 13,267 13,246 13,224 13,201 13,179 13,176 13,176 13,134	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,178 Distance Between Perfs 21 22 23 22 23	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between Perfs	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Bottom to Top	15,459 Plug to Plut Frac Plug 14,691 14,669 14,647 14,623 14,601 14,578 14,578 Plug to Plut Frac Plug 13,805 13,788 13,763 13,743 13,721 13,699	79 15,628 Distance Between Perfs 28 22 24 22 23 22 78 14,725 Distance Between Perfs 28 22 23 22 24 22 23 22 24 22 23 22 24	5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,301 15,278 lug to Plug Frac Plug 14,526 14,511 14,488 14,445 14,443 14,420 14,398 14,375 Plug to Plug Frac Plug 13,630 13,630 13,508 13,552 13,540 13,540 13,517	23 65 15,438 Distance Between Perfs 30 23 23 22 23 79 14,544 Distance Between Perfs 23 23 22 23 22 23 22 23 22 23 22 23 23	5 6 40 Total Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	15,120 15,097 Plug to Plug Frac Plug 14,350 14,330 14,307 14,285 14,262 14,240 14,217 14,195 Plug to Plug Frac Plug 13,447 13,427 13,427 13,349 13,359 13,339	79 15,267 Distance Between Perfs 25 23 22 23 22 79 14,364 Distance Between Perfs 25 23 22 23 22 23 22 23 22 23 22 23 22 23 22 23 22 25 25 25 26 27 27 28 20 20 25	5 5 40 Total Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,939 14,917 Plug to Plug Frac Plug 14,165 14,149 14,127 14,082 14,058 14,037 14,014 Plug to Plug Frac Plug 13,267 13,224 13,221 13,279 13,156	79 15,086 Distance Between Perfs 30 22 25 20 24 21 23 74 14,176 Distance Between Perfs 21 22 23 22 23 22	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	14,759 14,736 Plug to Plug Frac Plug 13,981 13,969 13,946 13,924 13,904 13,879 13,879 13,857 13,833 Plug to Plug Frac Plug	79 14,906 Distance Between Perfs 33 22 20 25 22 4 79 14,003 Distance Between Perfs	5 5 40 Fotal Shots Shots 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

Form 3160-4 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

HOBBS OCD

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOGS 7019

	WELL (COMPL	ETION C	R R	ECO	MPL	ETIO	N REP	ORT	ANDH	qc 8 2	019		ease Serial I IMNM1235		
1a. Type o		Oil Well					Ot						6. If	Indian, Allo	ottee or	Tribe Name
b. Type o	of Completion	_	lew Well		ork Ov	/er	☐ Dee	pen [Plug	BARE	6 M	K.F.D	7 11	nit or CA A	greeme	ent Name and No.
		Othe	er										/. 0	int of CA A	greenie	the reason and rec.
2. Name o COG C	f Operator OPERATING	LLC	E	-Mail:	aavei		act: AM oncho.c	ANDA A'	VERY	•				ease Name a BASEBALL		II No. FEDERAL COM 26H
3. Address	2208 W M ARTESIA									o. (include 8-6940	area cod	e)	9. A	PI Well No.		30-025-44153
4. Location	n of Well (Re		ion clearly ar 34E Mer NI		corda	nce wi	th Feder	ral require	ments)*				Field and Po		
At surfa	ace SESW	Lot N 32	25FSL 1980 Sec	FWL 3	4S R3	34E M	ler NMF	•					11. 5	Sec., T., R.,	M., or	Block and Survey 24S R34E Mer NMP
At top j	orod interval i	reported b	elow SES	W Lot	N 32	5FSL	1980F\	NL 32.18	32047	N Lat, 10	3.42584	1 W Lon		County or Pa		13. State
Sec 24 T24S R34E Mer NMP At total depth NENW Lot C 196FNL 1685FWL 32.209732 N Lat, 103.426752 W Lon											L	EA T		NM		
14. Date S 12/09/2	pudded 2017		15. Da 02	ate T.D /06/20		hed			1 D &	Complete A 3 0/2018	d Ready to	Prod.	17. 1	Elevations (1 340	DF, KE 08 GL	3, RT, GL)*
18. Total I	Depth:	MD TVD	23024 12615		19.	Plug l	Back T.I		MD FVD	22	820 615	20. De	pth Bri	dge Plug Se		MD 22915 TVD 12615
21. Type F	Electric & Oth	er Mecha	nical Logs R	un (Su	bmit c	opy of	each)				Was	well core	d?	⊠ No		(Submit analysis) (Submit analysis)
			 							·		ctional Su	rvey?	□ No i		(Submit analysis)
23. Casing a	nd Liner Rec	ord (Repo	ort all strings				1	6. 6		1 .,	661 0	Lei	X7 1	Γ		
Hole Size	Size/G	rade	Wt. (#/ft.)		op ID)		ttom (ID)	Stage Cer Dept			f Sks. & f Cement	Slurry (BE		Cement 7	Гор*	Amount Pulled
17.500	+	375 L80	68.0	ļ	0		1135				105				0	
12.250	_	25 P110	47.0		0	t e	12012		5405		265				0	
8.500	5.5	00 P110	23.0	┢	0	-	23009					55			1060	
	+					-						+				
	 			 								1				
24. Tubing	Record															
Size	Depth Set (N	$\overline{}$	acker Depth		1	ze	Depth	Set (MD)) P	acker Der	th (MD)	Size	De	pth Set (MI) [Packer Depth (MD)
2.875		2225		12215	<u> </u>	1	126	D								
	ing Intervals	- , .	Т		D-		20. 1	Perforation				C:	т,	Va Malaa		Douf Status
A)	ormation WOLFO	`AMB	Top	3111	Во	2281	_	Perro		Interval 3111 TO	22815	Size	No. Holes Perf. Status 2160			Peri. Status
B)	WOLIC	ZAIVII	'	3171	-	2201	┪-		<u>'</u>	311110	22013	.	十	2100		
C)							1			-						
D)										·						
27. Acid, F	racture, Treat	ment, Cer	nent Squeeze	e, Etc.												
	Depth Interve								Aı	mount and	Type of	Material				
	1311	1 10 22	B15 SEE AT	TACHE	יט											

	tion - Interval		Test	Oil	1	Gas	I w	ater	Oil Gr	avity	Gas		Droduce	ion Method		
Date First Produced	Test Date	Hours Tested	Test Production	BBL		MCF	BE	BL .	Corr.		Gas Grav	ity	rioduct			
11/30/2018	11/30/2018	24		423	3.0	542		2792.0		.11	·	Stt.	L		GAS LI	IFT
Choke Size	Tbg. Press. Flwg. 3800		24 Hr. Rate	Oil BBL		Gas MCF	ВЕ		Gas:O Ratio	ni	Well	Status				
18/64	SI	2699.0		42	3	54	2	2792	<u> </u>	•		POW				
	ction - Interva		Tr. d	loa.		C	1,		log c		Ic.		D 4	ion Math- 1		
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL		Gas MCF	BI	ater BL	Oil Gr Corr. A		Gas Grav	ity	rroduct	ion Method		
Choke	Tbg. Press.	Csg.	24 Hr.	Oil		Gas		ater	Gas:O	il	Well	Status	_			واديب
Size	Flwg. SI	Press.	Rate	BBL		MCF	BE	BL	Ratio						Jin0	BLM approvals

(See Instructions and spaces for additional data on reverse side)
ELECTRONIC SUBMISSION #450911 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

llin ned subsequently be reviewed and sca Documents pending (

	uction - Interv	al C									
Date First		Hours	Test	Oil	Gas	Water	Oil Gravity	Gas		Production Method	
Produced	Date	Tested	Production	BBL	MCF	BBL	Corr. API	Gra		Production Medical	
Choke Size	Tog, Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Wel	l Status		
28c. Prod	uction - Interv	al D			•						
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gra		Production Method	
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Wel	l Status	<u> </u>	
29. Dispo	sition of Gas(Sold, used	for fuel, vent	ed, etc.)	<u> </u>	!					
30. Summ	ary of Porous	Zones (Ir	nclude Aquife	rs):					31. For	mation (Log) Markers	
tests, i						intervals and and intervals and	all drill-stem shut-in pressure	es .			
	Formation		Тор	Bottom		Description	ns, Contents, etc	: .		Name	Top Meas. Depth
32. Additi	OF SALT NYON CANYON	(include p	1417 5260 5541 5561 6619 8133 9460 10609	edure):					BO LAI BE CH BR BO	P OF SALT ITTOM OF SALT MAR LL CANYON ERRY CANYON USHY CANYON INE SPRING LIMESTONE INE SPRING FIRST	1417 5260 5541 5561 6619 8133 9460 10609
33. Circle	enclosed attac	chments:									
	ectrical/Mecha ndry Notice fo	-	•			 Geologic Core Ana 	-		. DST Rep	port 4. Direction	nal Survey
34. I herel	by certify that	the forego	oing and attac	hed informa	tion is cor	nplete and con	rect as determin	ed from a	ll available	records (see attached instruction	ons):
			Electi	ronic Submi Fo	ission #45 or COG C	0911 Verified PERATING	by the BLM W LLC, sent to the	ell Infor he Hobbs	mation Sy	stem.	
Name	(please print)	<u>AMAND</u>	A AVERY				Title A	UTHORI	ZED REP	PRESENTATIVE	
Signat	ure	(Electror	nic Submissi	on)	,		Date <u>0</u>	1/16/201	9		
			-				-				
Title 18 U of the Uni	.S.C. Section ted States any	1001 and false, fict	Title 43 U.S.	C. Section 1 ulent statem	212, make	it a crime for presentations as	any person knov s to any matter v	wingly and	d willfully urisdiction	to make to any department or a	gency