

District I
1625 N. French Dr., Hobbs, NM 88240
District II
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

NM OIL CONSERVATION
ARTESIA DISTRICT

Form C-104
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

RECEIVED

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address COG Operating LLC 2208 W. Main Street Artesia, NM 88210		² OGRID Number 229137
		³ Reason for Filing Code/ Effective Date NW
⁴ API Number 30 - 015-44296	⁵ Pool Name Hay Hollow; Bone Spring, North	⁶ Pool Code 30216
⁷ Property Code 318323	⁸ Property Name MYOX 20 Federal Com	⁹ Well Number 5H

II. ¹⁰ Surface Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
B	20	25S	28E		330	North	2090	East	Eddy

¹¹ Bottom Hole Location

Ul or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
O	29	25S	28E		200	South	2127	East	Eddy
¹² Lse Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 12/14/17	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
278421	Holly Refining & Marketing Company, LLC PO Box 159 Artesia, NM 88210	O
298751	Energy Transfer 2001 Bryan Street - Ste 3700 Dallas, TX 75201	G

IV. Well Completion Data

²¹ Spud Date 9/12/17	²² Ready Date 12/7/17	²³ TD 17853' / 7976	²⁴ PBSD 17740'	²⁵ Perforations 8165-17715'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17 1/2"	13 3/8"	623'	600		
12 1/4"	9 5/8"	2490'	1050		
8 3/4"	5 1/2"	17846'	3550		
	2 7/8"	7481'			

V. Well Test Data

³¹ Date New Oil 12/11/17	³² Gas Delivery Date 12/14/17	³³ Test Date 12/11/17	³⁴ Test Length 24 Hrs	³⁵ Tbg. Pressure 425#	³⁶ Csg. Pressure 525#
³⁷ Choke Size 42/64"	³⁸ Oil 10	³⁹ Water 3720	⁴⁰ Gas 195		⁴¹ Test Method Flowing

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature:



Printed name:

Stormi Davis

Title:

Regulatory Analyst

E-mail Address:

sdavis@concho.com

Date:

12/19/17

Phone:

575-748-6946

OIL CONSERVATION DIVISION

Approved by:



Title:

Geologist

Approval Date:

1-19-2018

Pending BLM approvals will
subsequently be reviewed
and scanned

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNM OIL CONSERVATION
ARTESIA DISTRICT

JAN 12 2018

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

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

RECEIVED

5. Lease Serial No.
NMNM100550

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other			6. If Indian, Allottee or Tribe Name		
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr. Other _____			7. Unit or CA Agreement Name and No.		
2. Name of Operator COG OPERATING LLC			8. Lease Name and Well No. MYOX 20 FEDERAL COM 5H		
3. Address 2208 WEST MAIN ARTESIA, NM 88210			9. API Well No. 30-015-44296		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* Sec 20 T25S R28E Mer NMP At surface NWNE 330FNL 2090FEL At top prod interval reported below Sec 29 T25S R28E Mer NMP At total depth SWSE 200FSL 2127FEL			10. Field and Pool, or Exploratory HAY HOLLOW; BONE SPRING N		
14. Date Spudded 09/12/2017			15. Date T.D. Reached 09/25/2017		
16. Date Completed ☐ D & A ☒ Ready to Prod. 12/07/2017			17. Elevations (DF, KB, RT, GL)* 3026 GL		
18. Total Depth: MD 17853 TVD 7976			19. Plug Back T.D.: MD 17740 TVD 7978		
20. Depth Bridge Plug Set: MD 17740 TVD 7978			21. Type Electric & Other Mechanical Logs Run (Submit copy of each) NONE		
22. Was well cored? ☒ No ☐ Yes (Submit analysis) Was DST run? ☒ No ☐ Yes (Submit analysis) Directional Survey? ☐ No ☒ Yes (Submit analysis)					

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 J55	54.5	0	623		600		0	
12.250	9.625 J55	40.0	0	2490		1050		0	
8.750	5.500 P110	17.0	0	17846		3550		730	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	7481	7472						

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	8165	17715	8165 TO 17660	0.430	2816	OPEN
B)			17705 TO 17715		60	OPEN
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
8165 TO 17660	SEE ATTACHED

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
12/11/2017	12/11/2017	24	→	10.0	195.0	3720.0			FLows FROM WELL
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
42/64	425	525.0	→	10	195	3720		POW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Well Status
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #400079 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Pending BLM approvals will
subsequently be reviewed
and scanned

SC 1-22-18

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(Sold, used for fuel, vented, etc.)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
LAMAR	2469	2506		RUSTLER	492
BELL CANYON	2507	3337		TOS	680
CHERRY CANYON	3338	4534		BOS	2282
BRUSHY CANYON	4535	6090		LAMAR	2469
BONE SPRING LM	6091	7064		BELL CANYON	2507
1ST BONE SPRING	7065	7788		CHERRY CANYON	3338
2ND BONE SPRING	7789	8013		BRUSHY CANYON	4535
				BONE SPRING LM	6091

32. Additional remarks (include plugging procedure):
Surveys and Perfs/Stimulation are attached.

Additional Tops:

1st Bone Spring: 7065'
2nd Bone Spring: 7789'

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.) 2. Geologic Report 3. DST Report 4. Directional Survey
5. Sundry Notice for plugging and cement verification 6. Core Analysis 7 Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #400079 Verified by the BLM Well Information System.
For COG OPERATING LLC, sent to the Carlsbad

Name (please print) STORMI DAVISTitle PREPARERSignature (Electronic Submission)Date 01/09/2018

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

MYOX 20 FEDERAL COM #5H (30-015-44296)

<u>Perfs</u>	<u>7 1/2% Acid (Gal)</u>	<u>Sand (#)</u>	<u>Fluid (Gal)</u>
1	4032	312560	393708
2	3024	312760	370146
3	3024	311740	367836
4	3024	313610	364644
5	3024	312200	373758
6	3024	312920	376740
7	3024	311040	368718
8	3024	312460	360318
9	3024	312320	378924
10	3024	307530	359268
11	3024	312050	360276
12	3024	316020	361284
13	3024	312410	363006
14	3024	312180	363048
15	3024	311950	357924
16	3024	307190	352170
17	3024	311760	356958
18	3024	312270	358050
19	3024	316050	361620
20	3024	312000	355614
21	3024	309910	352884
22	3024	312560	357000
23	3024	312540	358092
24	3024	312350	358974
25	3024	311970	351246
26	3024	312090	347928
27	3024	313200	354312
28	3024	313100	353514
29	3024	312380	352380
30	3024	312020	347886
31	3024	312380	348012
32	3024	313960	347886
33	3024	312980	350742
34	3024	312680	349314
35	3024	311810	347634
36	4536	312950	367752
37	3024	313220	348264
38	3024	312990	400260
39	3024	311820	341250
40	3024	311970	343560
41	3024	312120	344064
42	3024	312920	346626
43	3024	313570	345366
44	3024	312490	346668
45	3024	310320	340956
46	3024	312730	343518
47	3024	312230	343098
48	3024	312300	342552
49	3024	312000	340536
50	3024	312150	341922
51	3024	312580	342384
52	3024	318610	344862
53	3024	319210	344400
54	3024	312990	341250
55	3024	312010	341334
56	3024	313470	375438
57	3024	312210	338142
58	3024	312580	333060
59	3024	312300	339822
60	3024	312020	341124
61	3024	312800	340620
62	3024	319200	340998
Totals	190,008	19,384,710	21,941,640

MYOX 20 FEDERAL COM 5H

	From Bottom to Top	Stage 1	Distance Between Perfs	Shots	Stage 2	Distance Between Perfs	Shots	Stage 3	Distance Between Perfs	Shots	Stage 4	Distance Between Perfs	Shots	Stage 5	Distance Between Perfs	Shots
		17,660	14	6	17,511	20	6	17,353	24	6	17,205	18	6	17,050	20	6
		17,646	19	6	17,492	19	6	17,339	26	6	17,185	19	6	17,032	20	6
		17,627	20	6	17,473	19	6	17,313	13	6	17,166	19	6	17,012	19	6
		17,607	19	6	17,454	19	6	17,300	19	6	17,147	19	6	16,993	19	6
		17,588	19	5	17,435	20	5	17,281	19	5	17,128	20	5	16,974	19	5
		17,569	19	5	17,415	19	5	17,262	19	5	17,108	19	5	16,955	19	5
		17,550	19	5	17,396	19	5	17,243	20	5	17,089	19	5	16,936	26	5
		17,531	5	5	17,377	5	5	17,223	5	5	17,070	5	5	16,910	5	5
		Plug to Plug	159	44	Plug to Plug	154	44	Plug to Plug	153	44	Plug to Plug	154	44	Plug to Plug	153	44
		Frac Plug	17,680	Total Shots	Frac Plug	17,521	Total Shots	Frac Plug	17,367	Total Shots	Frac Plug	17,214	Total Shots	Frac Plug	17,060	Total Shots
	From Bottom to Top	Stage 6	Distance Between Perfs	Shots	Stage 7	Distance Between Perfs	Shots	Stage 8	Distance Between Perfs	Shots	Stage 9	Distance Between Perfs	Shots	Stage 10	Distance Between Perfs	Shots
		16,887	23	6	16,740	25	6	16,580	29	6	16,418	38	6	1,620	14682	6
		16,870	11	6	16,724	19	6	16,564	15	6	16,406	11	6	16,264	16	6
		16,850	18	6	16,705	19	6	16,549	17	6	16,395	16	6	16,248	23	6
		16,841	21	6	16,686	19	6	16,532	19	6	16,379	22	6	16,225	19	6
		16,820	15	5	16,667	19	5	16,513	19	5	16,357	17	5	16,206	19	5
		16,805	23	5	16,648	20	5	16,494	19	5	16,340	14	5	16,187	19	5
		16,782	17	5	16,628	19	5	16,475	19	5	16,326	24	5	16,168	19	5
		16,765	5	5	16,609	5	5	16,456	5	5	16,302	5	5	16,149	5	5
		Plug to Plug	154	44	Plug to Plug	164	44	Plug to Plug	157	44	Plug to Plug	140	44	Plug to Plug	87	44
		Frac Plug	16,907	Total Shots	Frac Plug	16,753	Total Shots	Frac Plug	16,599	Total Shots	Frac Plug	16,432	Total Shots	Frac Plug	16,292	Total Shots
	From Bottom to Top	Stage 11	Distance Between Perfs	Shots	Stage 12	Distance Between Perfs	Shots	Stage 13	Distance Between Perfs	Shots	Stage 14	Distance Between Perfs	Shots	Stage 15	Distance Between Perfs	Shots
		16,125	-14505	6	15,976	19	6	15,816	27	6	15,663	25	6	15,510	24	6
		16,110	19	6	15,959	22	6	15,803	19	6	15,649	19	6	15,493	16	6
		16,091	19	6	15,937	16	6	15,784	19	6	15,630	19	6	15,477	17	6
		16,072	19	6	15,921	22	6	15,765	20	6	15,611	19	6	15,460	22	6
		16,053	21	5	15,899	15	5	15,745	19	5	15,592	19	5	15,438	19	5
		16,032	18	5	15,884	23	5	15,726	21	5	15,573	20	5	15,419	19	5
		16,014	19	5	15,861	18	5	15,705	17	5	15,553	19	5	15,400	19	5
		15,995	5	5	15,843	5	5	15,688	5	5	15,534	5	5	15,381	5	5
		Plug to Plug	154	44	Plug to Plug	157	44	Plug to Plug	150	44	Plug to Plug	153	44	Plug to Plug	161	44
		Frac Plug	16,139	Total Shots	Frac Plug	15,985	Total Shots	Frac Plug	15,828	Total Shots	Frac Plug	15,678	Total Shots	Frac Plug	15,525	Total Shots
	From Bottom to Top	Stage 16	Distance Between Perfs	Shots	Stage 17	Distance Between Perfs	Shots	Stage 18	Distance Between Perfs	Shots	Stage 19	Distance Between Perfs	Shots	Stage 20	Distance Between Perfs	Shots
		15,351	30	6	15,190	37	6	15,043	31	6	14,892	31	6	14,741	25	6
		15,335	12	6	15,180	15	6	15,035	16	6	14,882	20	6	14,728	19	6
		15,323	19	6	15,165	15	6	15,019	22	6	14,862	19	6	14,709	19	6
		15,304	19	6	15,150	19	6	14,997	19	6	14,843	19	6	14,690	20	6
		15,285	19	5	15,131	19	5	14,978	20	5	14,824	19	5	14,670	19	5
		15,266	20	5	15,112	16	5	14,958	19	5	14,805	20	5	14,651	19	5
		15,246	19	5	15,096	22	5	14,939	16	5	14,785	19	5	14,632	19	5
		15,227	5	5	15,074	5	5	14,923	5	5	14,766	5	5	14,613	5	5
		Plug to Plug	161	44	Plug to Plug	139	44	Plug to Plug	156	44	Plug to Plug	152	44	Plug to Plug	156	44
		Frac Plug	15,384	Total Shots	Frac Plug	15,203	Total Shots	Frac Plug	15,044	Total Shots	Frac Plug	14,908	Total Shots	Frac Plug	14,756	Total Shots
	From Bottom to Top	Stage 21	Distance Between Perfs	Shots	Stage 22	Distance Between Perfs	Shots	Stage 23	Distance Between Perfs	Shots	Stage 24	Distance Between Perfs	Shots	Stage 25	Distance Between Perfs	Shots
		14,588	25	6	14,440	22	6	14,287	19	6	14,129	23	6	13,976	27	6
		14,574	19	6	14,421	19	6	14,267	19	6	14,114	19	6	13,961	20	6
		14,555	21	6	14,402	20	6	14,248	19	6	14,095	20	6	13,941	19	6
		14,534	17	6	14,382	19	6	14,229	19	6	14,075	19	6	13,922	19	6
		14,517	22	5	14,363	19	5	14,210	19	5	14,056	19	5	13,903	20	5
		14,495	17	5	14,344	19	5	14,191	20	5	14,037	19	5	13,883	19	5
		14,478	16	5	14,325	19	5	14,171	19	5	14,018	15	5	13,864	19	5
		14,462	5	5	14,306	5	5	14,152	5	5	14,003	5	5	13,845	5	5
		Plug to Plug	3150	44	Plug to Plug	-2813	44	Plug to Plug	111	44	Plug to Plug	163	44	Plug to Plug	162	44
		Frac Plug	14,600	Total Shots	Frac Plug	11,450	Total Shots	Frac Plug	14,283	Total Shots	Frac Plug	14,152	Total Shots	Frac Plug	13,989	Total Shots
	From Bottom to Top	Stage 26	Distance Between Perfs	Shots	Stage 27	Distance Between Perfs	Shots	Stage 28	Distance Between Perfs	Shots	Stage 29	Distance Between Perfs	Shots	Stage 30	Distance Between Perfs	Shots
		13,816	29	6	13,666	25	6	13,519	19	6	13,356	28	6	13,195	36	6
		13,807	20	6	13,650	16	6	13,498	18	6	13,346	19	6	13,182	12	6
		13,787	19	6	13,634	19	6	13,480	22	6	13,327	19	6	13,170	16	6
		13,768	21	6	13,615	20	6	13,458	16	6	13,308	20	6	13,154	24	6
		13,747	17	5	13,595	19	5	13,442	17	5	13,288	19	5	13,130	14	5
		13,730	15	5	13,576	19	5	13,425	22	5	13,269	19	5	13,116	19	5
		13,715	24	5	13,557	19	5	13,403	19	5	13,250	19	5	13,097	20	5
		13,691	5	5	13,538	5	5	13,384	5	5	13,231	5	5	13,077	5	5
		Plug to Plug	147	44	Plug to Plug	152	44	Plug to Plug	160	44	Plug to Plug	160	44	Plug to Plug	141	44
		Frac Plug	13,827	Total Shots	Frac Plug	13,680	Total Shots	Frac Plug	13,528	Total Shots	Frac Plug	13,368	Total Shots	Frac Plug	13,208	Total Shots
	From Bottom to Top	Stage 31	Distance Between Perfs	Shots	Stage 32	Distance Between Perfs	Shots	Stage 33	Distance Between Perfs	Shots	Stage 34	Distance Between Perfs	Shots	Stage 35	Distance Between Perfs	Shots
		13,054	23	6	12,904	23	6	12,736	34	4	12,597	19	4	12,438	25	4
		13,039	19	6	12,885	19	6	12,724	16	6	12,578	19	6	12,424	19	6
		13,020	20	6	12,866	19	6	12,708	15	6	12,559	19	6	12,405	19	6
		13,000	19	6	12,847	19	6	12,693	15	6	12,540	20	6	12,386	22	6
		12,981	22	5	12,828	20	6	12,678	23	5	12,520	19	5	12,364	16	5
		12,959	16	5	12,808	19	5	12,655	19	5	12,501	19	5	12,348	13	5
		12,943	16	5	12,789	19	5	12,636	20	5	12,482	19	5	12,335	26	5
		12,927	5	5	12,770	5	5	12,616	5	5	12,463	5	5	12,309	5	5
		Plug to Plug	153	44	Plug to Plug	168	44	Plug to Plug	139	42	Plug to Plug	157	42	Plug to Plug	207	42
		Frac Plug	13,067	Total Shots	Frac Plug	12,914	Total Shots	Frac Plug	12,746	Total Shots	Frac Plug	12,607	Total Shots	Frac Plug	12,450	Total Shots
	From Bottom to Top	Stage 36	Distance Between Perfs	Shots	Stage 37	Distance Between Perfs	Shots	Stage 38	Distance Between Perfs	Shots	Stage 39	Distance Between Perfs	Shots	Stage 40	Distance Between Perfs	Shots
		12,232	77	6	12,135	21	6	11,978	30	6	11,812	37	6	11,664	31	6
		12,220	14	6	12,117	19	6	11,965	20	6	11,798	11	6	11,652	15	6
		12,206	12	6	12,098	12	6	11,945	20	6	11,787	15	6	11,637	19	6
		12,194	8	6	12,086	26	6	11,925	19	6	11,772	16	6	11,618	19	6
		12,186	12	5	12,060	19	5	11,906	19	5	11,756	23	5	11,599	19	5
		12,174	10	5	12,041	20	5	11,887	19	5	11,733	18	5	11,580	19	5
		12,164	8	5	12,021	13	5	11,868	19	5	11,715	20	5	11,561	20	5
		12,156	5	5	12,008	5	5	11,849	5	5	11,695	5	5	11,541	5	5

MYOX 20 FEDERAL COM 5H

	Stage 41			Stage 42			Stage 43			Stage 44			Stage 45		
	Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	
From Bottom to Top	11,516	25	6	11,360	28	6	11,212	22	6	11,055	26	6	10,908	23	6
	11,501	17	6	11,350	20	6	11,196	16	6	11,042	19	6	10,889	19	6
	11,484	23	6	11,330	19	6	11,180	22	6	11,023	19	6	10,870	20	6
	11,461	16	6	11,311	19	6	11,158	20	6	11,004	19	6	10,850	19	6
	11,445	16	5	11,292	19	5	11,138	19	5	10,985	22	5	10,831	19	5
	11,429	22	5	11,273	23	5	11,119	19	5	10,963	17	5	10,812	19	5
	11,407	19	5	11,250	16	5	11,100	19	5	10,946	15	5	10,793	19	5
	11,388		5	11,234		5	11,081		5	10,931		5	10,774		5
	Plug to Plug	158	44	Plug to Plug	147	44	Plug to Plug	154	44	Plug to Plug	153	44	Plug to Plug	162	44
	Frac Plug	11,530	Total Shots	Frac Plug	11,372	Total Shots	Frac Plug	11,225	Total Shots	Frac Plug	11,071	Total Shots	Frac Plug	10,918	Total Shots
	Stage 46			Stage 47			Stage 48			Stage 49			Stage 50		
	Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	
From Bottom to Top	10,743	31	6	10,595	25	6	10,440	27	6	10,285	28	6	10,135	24	6
	10,729	13	6	10,582	17	6	10,428	19	6	10,275	20	6	10,121	18	6
	10,716	19	6	10,565	22	6	10,409	19	6	10,255	19	6	10,103	20	6
	10,697	20	6	10,543	19	6	10,390	19	6	10,236	19	6	10,083	20	6
	10,677	19	5	10,524	19	5	10,371	18	5	10,217	19	5	10,063	19	5
	10,658	21	5	10,505	19	5	10,353	21	5	10,198	22	5	10,044	19	5
	10,637	17	5	10,486	19	5	10,332	19	5	10,176	17	5	10,025	19	5
	10,620		5	10,467		5	10,313		5	10,159		5	10,006		5
	Plug to Plug	146	44	Plug to Plug	153	44	Plug to Plug	159	44	Plug to Plug	148	44	Plug to Plug	154	44
	Frac Plug	10,758	Total Shots	Frac Plug	10,610	Total Shots	Frac Plug	10,457	Total Shots	Frac Plug	10,298	Total Shots	Frac Plug	10,150	Total Shots
	Stage 51			Stage 52			Stage 53			Stage 54			Stage 55		
	Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	
From Bottom to Top	9,983	23	6	9,824	28		9,675	24	6	9,520	25	6	9,364	28	6
	9,967	19	6	9,809	14		9,660	15	6	9,507	19	6	9,353	19	6
	9,948	22	6	9,795	20		9,645	23	6	9,488	20	6	9,334	19	6
	9,928	16	6	9,775	19		9,622	19	6	9,468	19	6	9,315	19	6
	9,910	16	5	9,756	19		9,603	20	5	9,449	24	5	9,296	20	5
	9,894	23	5	9,737	20		9,583	19	5	9,425	14	5	9,278	22	5
	9,871	19	5	9,717	18		9,564	19	5	9,411	19	5	9,254	16	5
	9,852		5	9,699			9,545		5	9,392		5	9,238		5
	Plug to Plug	159	44	Plug to Plug	148	0	Plug to Plug	154	44	Plug to Plug	158	44	Plug to Plug	149	44
	Frac Plug	9,996	Total Shots	Frac Plug	9,837	Total Shots	Frac Plug	9,689	Total Shots	Frac Plug	9,535	Total Shots	Frac Plug	9,377	Total Shots
	Stage 56			Stage 57			Stage 58			Stage 59			Stage 60		
	Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	
From Bottom to Top	9,211	27	6	9,061	23		8,907	24	6	8,755	22	6	8,597	25	6
	9,200	19	6	9,043	16		8,892	19	6	8,736	16	6	8,583	17	6
	9,181	20	6	9,027	16		8,873	19	6	8,720	20	6	8,566	15	6
	9,161	19	6	9,011	23		8,854	23	6	8,700	19	6	8,551	23	6
	9,142	19	5	8,988	24		8,831	15	5	8,681	19	5	8,528	19	5
	9,123	19	5	8,964	14		8,816	17	5	8,662	19	5	8,509	20	5
	9,104	20	5	8,950	19		8,799	22	5	8,643	21	5	8,489	19	5
	9,084		5	8,931			8,777		5	8,622		5	8,470		5
	Plug to Plug	154	44	Plug to Plug	159	0	Plug to Plug	147	44	Plug to Plug	158	44	Plug to Plug	160	44
	Frac Plug	9,228	Total Shots	Frac Plug	9,074	Total Shots	Frac Plug	8,915	Total Shots	Frac Plug	8,768	Total Shots	Frac Plug	8,610	Total Shots
	Stage 61			Stage 62			Stage 63			Stage 64			Stage 65		
	Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots		Distance Between Perfs	Shots	
From Bottom to Top	8,438	32		8,295	22	6	8,165			8,022			7,879		
	8,426	13		8,278	19	6									
	8,413	30		8,259	19	6									
	8,383	12		8,240	19	6									
	8,371	16		8,221	23	5									
	8,355	18		8,198	16	5									
	8,337	20		8,182	17	5									
	8,317			8,165		5									
	Plug to Plug	143	0	Plug to Plug	67	44	Plug to Plug	0	0	Plug to Plug	0	0	Plug to Plug	0	0
	Frac Plug	8,450	Total Shots	Frac Plug	8,307	Total Shots	Frac Plug		Total Shots	Frac Plug		Total Shots	Frac Plug		Total Shots