

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

Form C-104  
Revised August 1, 2011

HOBBS OCD

Submit one copy to appropriate District Office

OCT 1 0 2017

☐ AMENDED REPORT

RECEIVED

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

<sup>1</sup> Operator Name and Address COG Production LLC 2208 W. Main Street Artesia, NM 88210		<sup>2</sup> OGRID Number 217955
		<sup>3</sup> Reason for Filing Code/ Effective Date NW
<sup>4</sup> API Number 30 - 025-43174	<sup>5</sup> Pool Name WC-025 G-06 S253206M; Bone Spring	<sup>6</sup> Pool Code 97899
<sup>7</sup> Property Code 40143	<sup>8</sup> Property Name Windward Federal	<sup>9</sup> Well Number 5H

II. <sup>10</sup> Surface Location

Ul or lot no. 1	Section 30	Township 24S	Range 32E	Lot Idn	Feet from the 210	North/South Line North	Feet from the 530	East/West line West	County Lea
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<sup>11</sup> Bottom Hole Location

Ul or lot no. 4	Section 31	Township 24S	Range 32E	Lot Idn	Feet from the 63	North/South Line South	Feet from the 335	East/West line West	County Lea
<sup>12</sup> Lse Code F	<sup>13</sup> Producing Method Code F	<sup>14</sup> Gas Connection Date 8/22/17	<sup>15</sup> C-129 Permit Number	<sup>16</sup> C-129 Effective Date	<sup>17</sup> C-129 Expiration Date				

III. Oil and Gas Transporters

<sup>18</sup> Transporter OGRID	<sup>19</sup> Transporter Name and Address	<sup>20</sup> O/G/W
	Alpha Crude Connector Pipeline	O
	Lucid Energy	G

IV. Well Completion Data

<sup>21</sup> Spud Date 11/15/16	<sup>22</sup> Ready Date 8/20/17	<sup>23</sup> TD 19260'	<sup>24</sup> PBTD 19125'	<sup>25</sup> Perforations 9427-19105'	<sup>26</sup> DHC, MC
<sup>27</sup> Hole Size	<sup>28</sup> Casing & Tubing Size	<sup>29</sup> Depth Set	<sup>30</sup> Sacks Cement		
17 1/2"	13 3/8"	806'	1000		
12 1/4"	9 5/8"	4555'	1475		
8 3/4"	5 1/2"	19225'	3650		
	2 7/8"	8773'			

V. Well Test Data

<sup>31</sup> Date New Oil 8/21/17	<sup>32</sup> Gas Delivery Date 8/22/17	<sup>33</sup> Test Date 8/22/17	<sup>34</sup> Test Length 24 Hrs	<sup>35</sup> Tbg. Pressure 500#	<sup>36</sup> Csg. Pressure
<sup>37</sup> Choke Size	<sup>38</sup> Oil 108	<sup>39</sup> Water 2522	<sup>40</sup> Gas 743		<sup>41</sup> Test Method Flowing

<sup>42</sup> 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:  
10/5/17

Phone:  
575-748-6946

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

10/14/17

C-104 TEMPORARY APPROVAL pending receipt of approved  
BLM forms attached

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.  
NMNM120908

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator  
COG PRODUCTION LLCContact: STORMI DAVIS  
E-Mail: sdavis@concho.com8. Well Name and No.  
WINDWARD FEDERAL 5H9. API Well No.  
30-025-431743a. Address  
2208 WEST MAIN  
ARTESIA, NM 882103b. Phone No. (include area code)  
Ph: 575-748-694610. Field and Pool or Exploratory Area  
WILDCAT; BONE SPRING

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 30 T24S R32E Mer NMP NWNW 210FNL 530FWL

11. County or Parish, State

LEA COUNTY, NM

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

1/9/17 to 4/4/17 Test csg to 8500# for 30 mins. Good test. Perf 19155-19165' (60). Injection test.

5/2/17 to 7/1/17 Ran CBL. TOC @ 4510'. Set CBP @ 19125'. Test to 8407#. Perf 9427-19105' (2816). Acdz w/94,665 gal 7 1/2% and 97,313 gal 15%; Frac w/19,206,407# sand & 23,813,408 gal fluid.

8/3/17 to 8/6/17 Drilled out CFP's. Clean down to CBP @ 19125'.

8/7/17 Set 2 7/8" 6.5# L-80 tbg @ 8773' & pkr @ 8756'. Installed gas-lift system.

8/20/17 Began flowing back & testing.

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #391087 verified by the BLM Well Information System  
For COG PRODUCTION LLC, sent to the Hobbs**

Name (Printed/Typed) STORMI DAVIS

Title PREPARER

Signature (Electronic Submission)

Date 10/06/2017

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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.

(Instructions on page 2)

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

**Additional data for EC transaction #391087 that would not fit on the form**

**32. Additional remarks, continued**

8/21/17 Date of first production.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.  
NMNM1209081a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other  
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.  
Other \_\_\_\_\_

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator  
COG PRODUCTION LLCContact: STORMI DAVIS  
E-Mail: sdavis@concho.com8. Lease Name and Well No.  
WINDWARD FEDERAL 5H3. Address 2208 WEST MAIN  
ARTESIA, NM 882103a. Phone No. (include area code)  
Ph: 575-748-69469. API Well No.  
30-025-43174

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*

At surface Sec 30 T24S R32E Mer NMP  
NWNW Lot 1 210FNL 530FWL

At top prod interval reported below

Sec 31 T24S R32E Mer NMP  
At total depth SWSW Lot 4 63FSL 335FWL10. Field and Pool, or Exploratory  
WILDCAT; BONE SPRING11. Sec., T., R., M., or Block and Survey  
or Area Sec 30 T24S R32E Mer NMP12. County or Parish  
LEA13. State  
NM14. Date Spudded  
11/15/201615. Date T.D. Reached  
12/04/201616. Date Completed  
☐ D & A ☒ Ready to Prod.  
08/20/201717. Elevations (DF, KB, RT, GL)\*  
3539 GL18. Total Depth: MD 19260  
TVD 914019. Plug Back T.D.: MD 19125  
TVD 915220. Depth Bridge Plug Set: MD 19125  
TVD 915221. Type Electric & Other Mechanical Logs Run (Submit copy of each)  
NONE22. 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	806		1000		0	
12.250	9.625 J55	40.0	0	4555		1475		0	
8.750	5.500 P110	17.0	0	19225		3650		4510	

## 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	8773	8756						

## 25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) BONE SPRING	9427	19105	9427 TO 19105	0.430	2816	OPEN
B)			19155 TO 19165		60	UNDER CBP
C)						
D)						

## 26. Perforation Record

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

Depth Interval	Amount and Type of Material
9427 TO 19105	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
08/21/2017	08/22/2017	24	→	108.0	743.0	2522.0			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	
	500		→	108	743	2522		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	Production Method
			→						
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 #391097 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

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

## 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	4601	4625		RUSTLER	844
BELL CANYON	4626	5540		TOS	1063
CHERRY CANYON	5541	6870		BOS	4375
BRUSHY CANYON	6871	8470		LAMAR	4601
BONE SPRING LM	8471	9248		BELL CANYON	4626
				CHERRY CANYON	5541
				BRUSHY CANYON	6871
				BONE SPRING LM	8471

32. Additional remarks (include plugging procedure):  
Surveys, perms & stimulation are attached.

## 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 #391097 Verified by the BLM Well Information System.  
For COG PRODUCTION LLC, sent to the Hobbs

Name (please print) STORMI DAVIS Title PREPARER

Signature \_\_\_\_\_ (Electronic Submission) Date 10/06/2017

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 \*\***

## WINDWARD FEDERAL #5H

<u>Perfs</u>	<u>7 1/2% Acid (Gal)</u>	<u>15% Acid (Gal)</u>	<u>Sand (#)</u>	<u>Fluid (Gal)</u>
1	0	1500	300180	349890
2	1512	1500	301660	449094
3	1500	1500	301080	368274
4	1512	1512	302410	377076
5	1512	1512	301120	379428
6	1512	1512	301050	460530
7	1500	1512	300310	372486
8	1500	1500	301820	397590
9	1512	1500	299210	367278
10	1512	1512	302910	369306
11	1500	1512	302920	372612
12	1512	1512	301650	369390
13	1512	1512	299890	434112
14	1500	1512	300060	364170
15	1512	1500	299160	364002
16	1500	1512	303420	366732
17	1512	1512	300270	361494
18	1512	1512	300150	360738
19	1512	1500	299920	433302
20	1500	1512	301990	361818
21	1512	1512	276190	349272
22	1500	1512	299600	359592
23	1512	1512	302330	360822
24	1512	1512	300670	372834
25	1512	1512	301290	365988
26	1512	1512	302050	363006
27	1500	1890	290010	381600
28	1512	1512	300200	415884
29	1512	1512	300130	373674
30	1512	1512	298500	362250
31	1512	1512	300110	355572
32	1512	1512	301690	358176
33	1512	1512	298080	353682
34	1092	1512	300190	365106
35	1512	1512	300840	431382
36	1512	1680	302040	355404
37	1512	1512	296800	357504
38	1512	1512	302800	362166
39	1512	1512	297100	359562
40	1512	1512	302650	354690
41	1500	1554	299650	352914
42	1512	1554	303030	356454
43	1512	1512	300390	481362
44	1512	1512	301690	353010
45	1500	1512	301190	365304
46	1512	1512	300510	350658
47	1512	1512	306270	357588
48	1512	1512	296740	428610
49	1512	1512	300620	350280
50	1512	1512	299280	354438
51	1500	1512	301470	355014
52	1512	1512	302050	350154
53	1512	1512	300050	347718
54	1512	1512	301600	354060
55	1512	1512	301710	345240
56	1512	1512	300270	414120
57	1500	1512	300030	358752
58	1512	1512	296650	345282
59	1500	1512	300640	347790
60	1512	1512	301030	353010
61	1512	1512	301080	361410
62	1512	1512	300120	394506
63	1512	1512	301010	348474
64	1512	1512	294940	349776
<b>Totals</b>	<b>94,665</b>	<b>97,313</b>	<b>19,206,470</b>	<b>23,813,408</b>

**HOBBS OCD**  
**OCT 1 02017**  
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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
	13.790	13.789	28	6	13.475	13.475	40	6	13.475	13.475	40	6	13.332	13.332	28	6	13.172	13.158	40	6
	13.760	13.629	18	6	13.610	13.610	19	6	13.448	13.448	9	6	13.302	13.316	14	6	13.140	13.140	13	6
	13.743	13.591	17	6	13.591	13.591	19	6	13.439	13.439	9	6	13.288	13.288	19	6	13.127	13.127	17	6
	13.726	13.572	21	5	13.572	13.572	19	5	13.420	13.420	18	5	13.269	13.269	19	5	13.110	13.110	16	5
	13.705	13.553	19	5	13.553	13.553	19	5	13.402	13.402	19	5	13.248	13.248	22	5	13.094	13.076	13	5
	13.687	13.534	19	5	13.534	13.534	19	5	13.383	13.383	23	5	13.238	13.238	16	5	13.062	13.062	5	5
	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44
	Frac Plug	Frac Plug	13.788	13.788	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44
	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
14.545		14.396	31	6	14.396	14.396	29	6	14.232	14.232	41	6	14.065	14.064	29	6	13.840	13.828	35	6
14.530		14.387	11	6	14.387	14.387	19	6	14.220	14.220	10	6	14.064	14.065	19	6	13.828	13.828	15	6
14.519		14.368	19	6	14.368	14.368	19	6	14.210	14.210	13	6	14.065	14.065	19	6	13.813	13.813	19	6
14.500		14.348	18	6	14.348	14.348	19	6	14.197	14.197	19	6	14.046	14.046	19	6	13.894	13.894	19	6
14.482		14.330	19	5	14.330	14.330	19	5	14.178	14.178	21	5	14.027	14.027	19	5	13.875	13.875	19	5
14.463		14.311	19	5	14.311	14.311	19	5	14.157	14.157	17	5	14.008	14.008	14	5	13.856	13.856	19	5
14.444		14.292	19	5	14.292	14.292	19	5	14.140	14.140	16	5	13.994	13.994	19	5	13.837	13.837	19	5
Plug to Plug		Plug to Plug	152	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44
Frac Plug		Frac Plug	14.582	14.582	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44
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
	15.312	15.162	28	6	15.162	15.162	21	6	15.000	15.000	31	6	14.855	14.855	24	6	14.708	14.692	29	6
	15.286	15.145	19	6	15.145	15.145	19	6	14.988	14.988	14	6	14.842	14.842	19	6	14.692	14.692	21	6
	15.277	15.128	19	6	15.128	15.128	19	6	14.974	14.974	18	6	14.823	14.823	19	6	14.671	14.671	19	6
	15.258	15.107	19	6	15.107	15.107	19	6	14.956	14.956	20	6	14.804	14.804	19	6	14.652	14.652	19	6
	15.239	15.088	19	5	15.088	15.088	19	5	14.936	14.936	19	5	14.785	14.785	19	5	14.633	14.633	19	5
	15.220	15.069	19	5	15.069	15.069	19	5	14.917	14.917	19	5	14.766	14.766	19	5	14.614	14.614	19	5
	15.201	15.050	18	5	15.050	15.050	19	5	14.898	14.898	19	5	14.747	14.747	9	5	14.595	14.595	19	5
	15.183	15.031	5	5	15.031	15.031	5	5	14.879	14.879	5	5	14.738	14.738	5	5	14.576	14.576	5	5
	Plug to Plug	Plug to Plug	150	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44
Frac Plug	Frac Plug	15.320	15.320	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	
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
	16.069	15.910	23	6	15.910	15.895	11	6	15.752	15.740	20	6	15.598	15.589	9	6	15.461	15.448	19	6
	16.054	15.895	19	6	15.895	15.884	19	6	15.740	15.720	15	6	15.589	15.580	9	6	15.448	15.429	19	6
	16.036	15.884	19	6	15.884	15.865	19	6	15.720	15.705	15	6	15.580	15.561	18	6	15.429	15.410	19	6
	16.016	15.865	19	6	15.865	15.846	19	6	15.705	15.680	15	6	15.561	15.543	19	6	15.410	15.391	19	6
	16.009	15.846	19	5	15.846	15.827	19	5	15.675	15.654	19	5	15.543	15.524	19	5	15.391	15.372	19	5
	15.998	15.827	19	5	15.827	15.808	19	5	15.656	15.633	19	5	15.524	15.506	19	5	15.363	15.340	13	5
	15.979	15.808	19	5	15.808	15.789	5	5	15.633	15.606	23	5	15.506	15.494	5	5	15.340	15.340	5	5
	15.960	15.789	5	5	15.789	15.769	5	5	15.606	15.589	5	5	15.494	15.478	5	5	15.340	15.340	5	5
	Plug to Plug	Plug to Plug	163	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44
Frac Plug	Frac Plug	16.083	16.083	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	
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
	16.820	16.656	32	6	16.656	16.624	12	6	16.528	16.509	19	6	16.358	16.334	22	6	16.222	16.207	20	6
	16.810	16.636	17	6	16.636	16.610	19	6	16.509	16.490	19	6	16.345	16.334	22	6	16.207	16.187	19	6
	16.793	16.624	19	6	16.624	16.614	14	6	16.490	16.471	19	6	16.334	16.312	12	6	16.187	16.168	19	6
	16.774	16.614	19	6	16.614	16.600	19	6	16.471	16.452	19	6	16.312	16.300	19	6	16.168	16.149	19	6
	16.755	16.600	19	5	16.600	16.581	15	5	16.452	16.433	19	5	16.300	16.281	18	5	16.149	16.130	21	5
	16.736	16.581	23	5	16.581	16.566	15	5	16.433	16.414	19	5	16.281	16.263	13	5	16.130	16.109	17	5
	16.713	16.566	15	5	16.566	16.551	5	5	16.414	16.395	19	5	16.263	16.250	5	5	16.109	16.092	5	5
	16.698	16.551	5	5	16.551	16.534	5	5	16.395	16.378	5	5	16.250	16.235	5	5	16.092	16.075	5	5
	Plug to Plug	Plug to Plug	166	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44
Frac Plug	Frac Plug	16.830	16.830	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	
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
	17.582	17.422	34	6	17.422	17.403	13	6	17.277	17.264	18	6	17.124	17.108	16	6	16.966	16.954	10	6
	17.565	17.403	14	6	17.403	17.390	16	6	17.264	17.246	11	6	17.108	17.092	20	6	16.944	16.925	18	6
	17.551	17.390	16	6	17.390	17.374	13	6	17.246	17.235	19	6	17.092	17.072	20	6	16.925	16.907	24	5
	17.535	17.374	22	5	17.374	17.361	18	5	17.235	17.216	25	5	17.072	17.052	13	5	16.907	16.883	14	5
	17.519	17.357	19	5	17.357	17.343	19	5	17.216	17.191	19	5	17.052	17.030	19	5	16.883	16.866	17	5
	17.502	17.340	19	5	17.340	17.324	5	5	17.191	17.172	19	5	17.030	17.020	19	5	16.866	16.852	5	5
	17.485	17.324	5	5	17.324	17.305	44	44	17.172	17.153	44	44	17.020	17.001	5	5	16.852	16.837	5	5
	17.468	17.305	44	44	17.305	17.286	44	44	17.153	17.133	44	44	17.001	16.982	44	44	16.837	16.818	44	44
	Plug to Plug	Plug to Plug	158	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44	Plug to Plug	Plug to Plug	44	44
Frac Plug	Frac Plug	17.580	17.580	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	Total Shots	Total Shots	44	44	
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
	18.336	18.187	27	6	18.187	18.176	19	6	18.029	18.017	17	6	17.882	17.870	29	6	17.727	17.712	32	6
	18.324	18.176	16	6	18.176	18.167	27	6	18.017	18.000	13	6	17.870	17.854	19	6	17.712	17.696	16	6
	18.307	18.157	17	6	18.157	18.130	11	6	18.000	17.987	19	6	17.854	17.835	19	6	17.696	17.680	15	6
	18.290	18.130	16	6	18.130	18.119	19	5	17.987	17.968	19	5	17.835	17.816	19	5	17.680	17.665	19	5
	18.274	18.119	22	5	18.119	18.100	19	5	17.968	17.949	19	5	17.816	17.797	19	5	17.665	17.646	19	5
	18.257	18.100	19	5	18.100	18.081	19	5	17.949	17.930	19	5	17.797	17.778	19	5	17.646	17.627	19	5
	18.233	18.081	19	5	18.081	18.062	5	5	17.930	17.911	5	5	17.778	17.759	5	5	17.627	17.608	5	5
	18.214	18.062	5	5	18.062	18.043	44	44	17.911	17.892	44	44	17.759	17.740	44	44				

## Windward Federal #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	13,032	30	6	12,974	35	6	12,730	27	6	12,580	26	6	12,426	28	6	
	13,015	15	6	12,861	17	6	12,715	15	6	12,564	15	6	12,410	16	6	
	13,000	15	6	12,844	14	6	12,700	18	6	12,549	25	6	12,394	16	6	
	12,985	23	6	12,830	16	6	12,682	16	6	12,524	13	6	12,378	17	6	
	12,962	17	5	12,814	17	5	12,666	22	5	12,511	19	5	12,361	21	5	
	12,945	15	5	12,797	21	5	12,644	19	5	12,492	19	5	12,340	18	5	
	12,930	21	5	12,776	19	5	12,625	19	5	12,473	19	5	12,322	19	5	
	12,909		5	12,757		5	12,606		5	12,454		5	12,303		5	
	Plug to Plug	150	44	Plug to Plug	152	44	Plug to Plug	150	44	Plug to Plug	154	44	Plug to Plug	153	44	
	Frac Plug	13,040	Total Shots	Frac Plug	12,890	Total Shots	Frac Plug	12,738	Total Shots	Frac Plug	12,588	Total Shots	Frac Plug	12,434	Total Shots	
From Bottom to Top		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
		12,273	30	6	12,118	33	6	11,971	28	6	11,820	28	6	11,660	45	6
		12,260	14	6	12,104	20	6	11,956	13	6	11,810	19	6	11,650	11	6
		12,246	17	6	12,084	16	6	11,943	19	6	11,791	19	6	11,639	18	6
		12,229	21	6	12,068	16	6	11,924	19	6	11,772	19	6	11,621	19	6
		12,208	19	5	12,052	17	5	11,905	19	5	11,753	19	5	11,602	22	5
		12,189	19	5	12,035	17	5	11,886	19	5	11,734	19	5	11,580	16	5
		12,170	19	5	12,018	19	5	11,867	19	5	11,715	10	5	11,564	14	5
		12,151		5	11,999		5	11,848		5	11,705		5	11,550		5
		Plug to Plug	155	44	Plug to Plug	147	44	Plug to Plug	149	44	Plug to Plug	150	44	Plug to Plug	150	44
		Frac Plug	12,281	Total Shots	Frac Plug	12,126	Total Shots	Frac Plug	11,979	Total Shots	Frac Plug	11,830	Total Shots	Frac Plug	11,680	Total Shots
From Bottom to Top		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
		11,522	28	6	11,366	27	6	11,205	35	6	11,066	34	6	10,912	26	6
		11,507	19	6	11,355	25	6	11,190	15	6	11,052	19	6	10,901	21	6
		11,488	19	6	11,330	20	6	11,175	10	6	11,033	19	6	10,880	17	6
		11,469	19	6	11,310	20	6	11,165	18	6	11,014	20	6	10,863	19	6
		11,450	20	5	11,290	20	5	11,147	15	5	10,994	18	5	10,844	14	5
		11,430	18	5	11,270	20	5	11,132	17	5	10,976	16	5	10,830	24	5
		11,412	19	5	11,250	10	5	11,115	15	5	10,960	22	5	10,806	16	5
		11,393		5	11,240		5	11,100		5	10,938		5	10,790		5
		Plug to Plug	156	44	Plug to Plug	150	44	Plug to Plug	150	44	Plug to Plug	154	44	Plug to Plug	150	44
		Frac Plug	11,530	Total Shots	Frac Plug	11,374	Total Shots	Frac Plug	11,224	Total Shots	Frac Plug	11,074	Total Shots	Frac Plug	10,920	Total Shots
From Bottom to Top		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
		10,760	30	6	10,612	28	6	10,456	28	6	10,313	19	6	10,140	41	6
		10,749	19	6	10,597	19	6	10,442	18	6	10,294	19	6	10,115	15	6
		10,730	19	6	10,578	22	6	10,424	16	6	10,275	15	6	10,100	15	6
		10,711	21	6	10,556	15	6	10,408	17	6	10,260	23	6	10,085	15	6
		10,690	17	5	10,541	17	5	10,391	21	5	10,237	17	5	10,070	10	5
		10,673	18	5	10,524	21	5	10,370	19	5	10,220	21	5	10,060	15	5
		10,655	15	5	10,503	19	5	10,351	19	5	10,199	18	5	10,045	16	5
		10,640		5	10,484		5	10,332		5	10,181		5	10,029		5
		Plug to Plug	150	44	Plug to Plug	156	44	Plug to Plug	141	44	Plug to Plug	173	44	Plug to Plug	140	44
		Frac Plug	10,770	Total Shots	Frac Plug	10,620	Total Shots	Frac Plug	10,464	Total Shots	Frac Plug	10,323	Total Shots	Frac Plug	10,150	Total Shots
From Bottom to Top		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
		10,002	27	6	9,837	40	6	9,696	30	6	9,538	36			9427	
		9,986	14	6	9,823	13	6	9,681	16	6	9,525	20				
		9,972	18	6	9,810	15	6	9,665	15	6	9,505	15				
		9,954	20	6	9,795	12	6	9,650	19	6	9,490	14				
		9,934	19	5	9,783	19	5	9,631	19	5	9,476	15				
		9,915	19	5	9,764	19	5	9,612	19	5	9,461	19				
		9,898	19	5	9,745	19	5	9,593	19	5	9,442	15				
		9,877		5	9,726		5	9,574		5	9,427					
		Plug to Plug	165	44	Plug to Plug	141	44	Plug to Plug	158	44	Plug to Plug	56	0	Plug to Plug	0	0
		Frac Plug	10,010	Total Shots	Frac Plug	9,845	Total Shots	Frac Plug	9,704	Total Shots	Frac Plug	9,546	Total Shots	Frac Plug		Total Shots