

RECEIVED:	REVIEWER:	TYPE:	APP NO:
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Geological & Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

<b>Applicant:</b> <u>Marathon Oil Permian LLC</u>	<b>OGRID Number:</b> <u>372098</u>
<b>Well Name:</b> <u>FEDERAL 15 A COM 1</u>	<b>API:</b> <u>30-025-27153</u> <span style="float: right; border: 1px solid black; padding: 0 2px;">+</span>
<b>Pool:</b> <u>BOOTLEG RIDGE; MORROW, EAST (GAS) &amp; WC-025 S223315J; ATOKA (GAS)</u>	<b>Pool Code:</b> <u>72660 &amp; 98345</u>

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW**

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
- A. Location – Spacing Unit – Simultaneous Dedication  
 NSL       NSP (PROJECT AREA)       NSP (PRORATION UNIT)       SD
- B. Check one only for [ I ] or [ II ]
- [ I ] Commingling – Storage – Measurement  
 DHC     CTB     PLC     PC     OLS     OLM
- [ II ] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery  
 WFX     PMX     SWD     IPI     EOR     PPR

- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.
- A.  Offset operators or lease holders  
 B.  Royalty, overriding royalty owners, revenue owners  
 C.  Application requires published notice  
 D.  Notification and/or concurrent approval by SLO  
 E.  Notification and/or concurrent approval by BLM  
 F.  Surface owner  
 G.  For all of the above, proof of notification or publication is attached, and/or,  
 H.  No notice required

FOR OCD ONLY

Notice Complete

Application Content Complete

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Adrian Covarrubias  
 Print or Type Name

4/23/2020  
 Date

Print or Type Name

713-296-3368  
 Phone Number

\_\_\_\_\_  
 Signature

acovarrubias@marathonoil.com  
 e-mail Address

District I  
1625 N. French Drive, Hobbs, NM 88240

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-107A  
Revised August 1, 2011

District II  
811 S. First St., Artesia, NM 88210

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

APPLICATION TYPE  
 Single Well  
 Establish Pre-Approved Pools  
EXISTING WELLBORE  
 Yes  No

District III  
1000 Rio Brazos Road, Aztec, NM 87410

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

APPLICATION FOR DOWNHOLE COMMINGLING

Marathon Oil Permian LLC 5555 San Felipe St, Houston, TX 77056  
Operator Address  
Federal 15 A Com 1 J-15-22S-33E Lea  
Lease Well No. Unit Letter-Section-Township-Range County  
OGRID No. 372098 Property Code 318198 API No. 30-025-27153 Lease Type:  Federal  State  Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	WC-025 S223315J; Atoka (Gas)		Bootleg Ridge; Morrow, East (Gas)
Pool Code	98345		72660
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	13,781' - 14,001'		14,387' - 14,280'
Method of Production (Flowing or Artificial Lift)	Flowing		Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	53 API		51 API
Producing, Shut-In or New Zone	New Zone		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: See Attached Rates:	Date: Rates:	Date: See Attached Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil 95 % Gas 53 %	Oil % Gas %	Oil 5 % Gas 47 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes  No   
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes  No   
Are all produced fluids from all commingled zones compatible with each other? Yes  No   
Will commingling decrease the value of production? Yes  No   
If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes  No   
NMOCD Reference Case No. applicable to this well: \_\_\_\_\_

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE \_\_\_\_\_ TITLE Regulatory Professional DATE 4/23/2020  
TYPE OR PRINT NAME Adrian Covarrubias TELEPHONE NO. ( 713 ) 296-3368  
E-MAIL ADDRESS acovarrubias@marathonoil.com

Federal 15 A Com #001 | 30-025-27153  
J-15-22S-33E 1,980' FSL & 1,980' FEL  
C-107 A – Application for Downhole Commingling

Attachments:

### **C-102 for each zone**

#### **Production curve for each zone for at least one year. (If not available, attach explanation.)**

Federal 15 A Com #001 has recently been plugged back to a zone further up in the Morrow formation. All pre-existing perforated Morrow intervals of the Fed 15 A Com 1 have been plugged off and isolated from the new perforations. With the old Morrow perforations plugged off, historical initial production volumes of the Morrow were used to model anticipated production volumes of the new perforations in the Morrow.

The perforations that were fired have not yield any production. The Federal 15 A Com #001 is currently open to the BOOTLEG RIDGE; MORROW, EAST (GAS) pool [Pool ID: 72660]. The production curve for this interval is attached.

#### **For zones with no production history, estimated production rates and supporting data and state the method/formula used to support this data.**

The Atoka does not have any production history in the Federal 15 A Com #001.

The State LT 32 Com #001 was used as an offset to prove up hole potential in the Federal 15 A Com #001 since it is approximately 3.7 miles NE from the Federal 15 A Com #001 (picture attached). And the closest well pulling from this zone.

Geology studied a Federal 15 A Com #001 log and also correlated it with a State LT 32 Com #001 log to help determine the new perforations in the Atoka for the Federal 15 A Com #001 (Federal 15 A Com #001 log attached).

Also attached is historical Atoka Production in the State LT 32 Com #001 and forecasted Federal 15 A Com #001 Morrow production. These are based off historical production. These were combined to form an overall forecast for the downhole commingle of the Federal 15 A Com #001.

This forecast for the Federal 15 A Com #001 proved that an IP of 8.3 BOPD and 19.2 MCFPD is expected total, and of that, 8.0 BOPD and 6.6 MCFPD will come from the Atoka. The Morrow currently has not produced anything since the plug back, but is projected to yield 0.3 BOPD and 12.6 MCFPD with the additional intervals that will be opened up.

Attached you will find the expected commingled forecasts.

All working interest are identical and notification is not required.

**Ryan Gyllenband**  
Land Supervisor



**Marathon Oil Permian LLC**  
5555 San Felipe Street  
Houston, TX 77056  
Telephone: 713.296.2453 Mobile: 281.684.7389  
Fax: 713.513.4006  
mrgyllenband@marathonoil.com

March 13, 2020

Mr. Dean McClure  
Petroleum Specialist  
New Mexico Energy, Minerals and Natural Resources Department  
1220 South Francis Drive  
Santa Fe, NM 87505

Re: Marathon Oil Permian LLC - Downhole Commingling Application  
Federal 15 A Com 1 Well (API# 30-025-27153)  
Section 15, T22S-R33E  
Lea County, New Mexico

Mr. McClure,

Marathon Oil Permian LLC ("Marathon") has filed the attached application with the New Mexico Oil Conservation Division ("Division") for administrative approval to downhole commingle production from the Morrow and Atoka Formations in the Federal 15 A Com 1 Well (API# 30-025-27153) located in Section 15, T22S-R33E, Lea County, New Mexico. This letter serves as notice that the operator and all interest owners are identical in the subject well and therefore no notice is required.

Should you have any questions please do not hesitate to contact me at 713-296-2453 or by email at mrgyllenband@marathonoil.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Gyllenband', written over a faint blue line.

Ryan Gyllenband  
Land Supervisor  
Lea County, New Mexico

State LT 32 Com #001 Original Production		
Date	Oil (BPM)	Gas (MCFPM)
Dec-13	244	203
Jan-14	479	10872
Feb-14	149	18354
Mar-14	109	1062
Apr-14	367	2545
May-14	140	2153
Jun-14	170	3907
Jul-14	24	6588
Aug-14	77	4685
Sep-14	10	4435
Oct-14	617	4551
Nov-14	154	2133
Dec-14	719	349
Jan-15	10	378
Feb-15	195	402
Mar-15	30	808
Apr-15	42	815
May-15	37	2739
Jun-15	45	3556
Jul-15	111	3490
Aug-15	36	3972
Sep-15	71	3519
Oct-15	58	3404
Nov-15	31	2958
Dec-15	35	2062
Jan-16	38	2650
Feb-16	41	2336
Mar-16	78	2446
Apr-16	66	2243
May-16	44	1997
Jun-16	29	2061
Jul-16	41	1840
Aug-16	44	1286
Sep-16	20	134
Oct-16	8	91
Nov-16	19	250
Dec-16	18	207
Jan-17	33	299
Feb-17	19	81
Mar-17	124	431
Apr-17	1	79
May-17	25	79
Jun-17	19	318
Jul-17	28	158
Aug-17	22	164
Sep-17	14	237
Oct-17	27	200
Nov-17	14	173
Dec-17	8	117
Jan-18	22	141
Feb-18	17	345
Mar-18	19	53
Apr-18	30	252
May-18	25	186
Jun-18	75	182
Jul-18	16	176
Aug-18	49	56
Sep-18	25	39
Oct-18	74	188
Nov-18	44	37
Dec-18	25	207
Jan-19	13	28
Feb-19	6	55
Mar-19	19	280
Apr-19	17	28
May-19	47	65
Jun-19	25	82
Jul-19	2	39
Aug-19	42	45
Sep-19	0	45
Oct-19	9	32
Nov-19	0	37
Dec-19	0	41

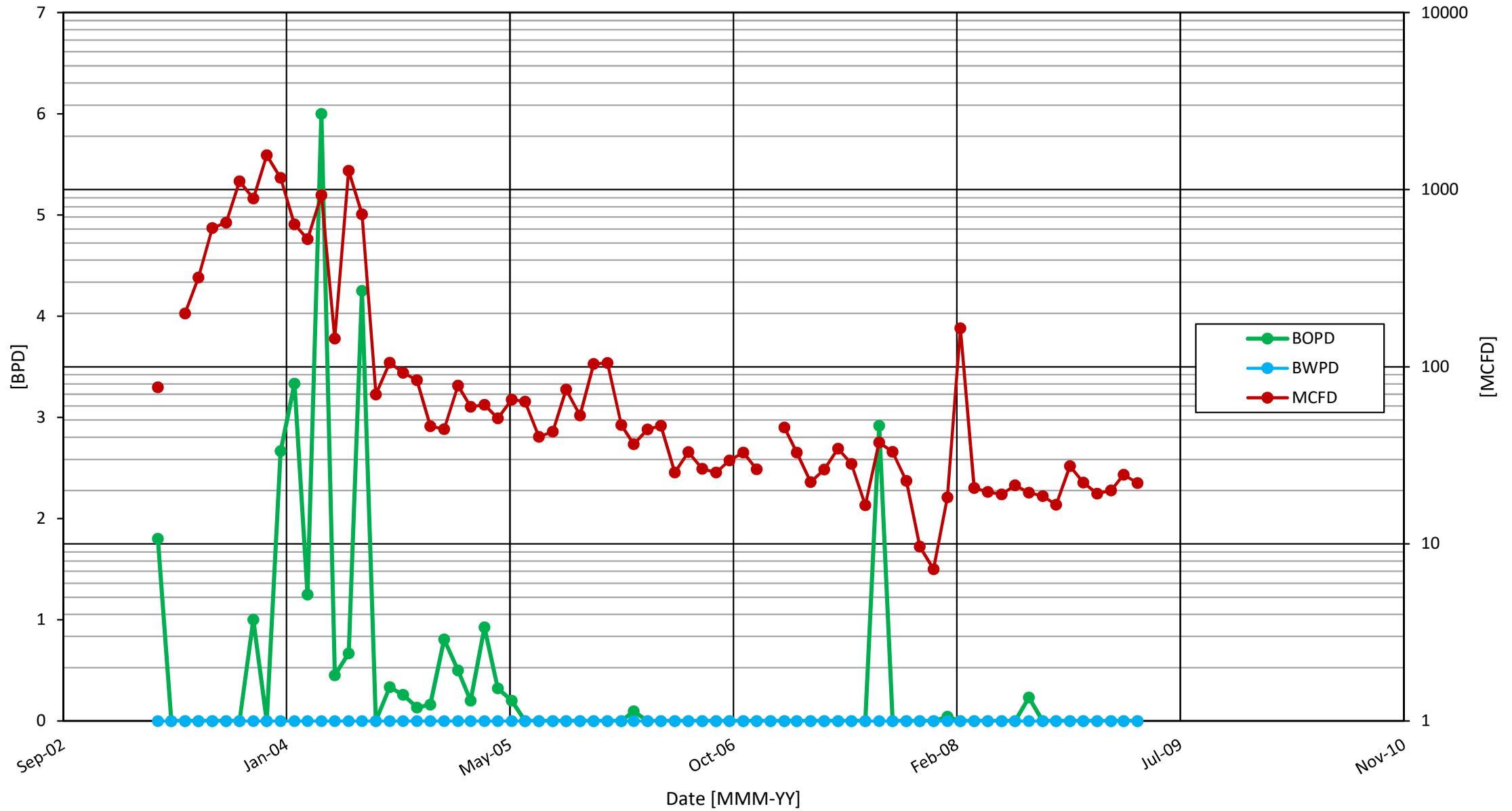
AN UNNAMED WILDCAT ATOKA (GAS) POOL		
	Oil (BPM)	Gas (MCFPM)
Cumulative	5341	112456
Allocated %		
Est	95%	53%

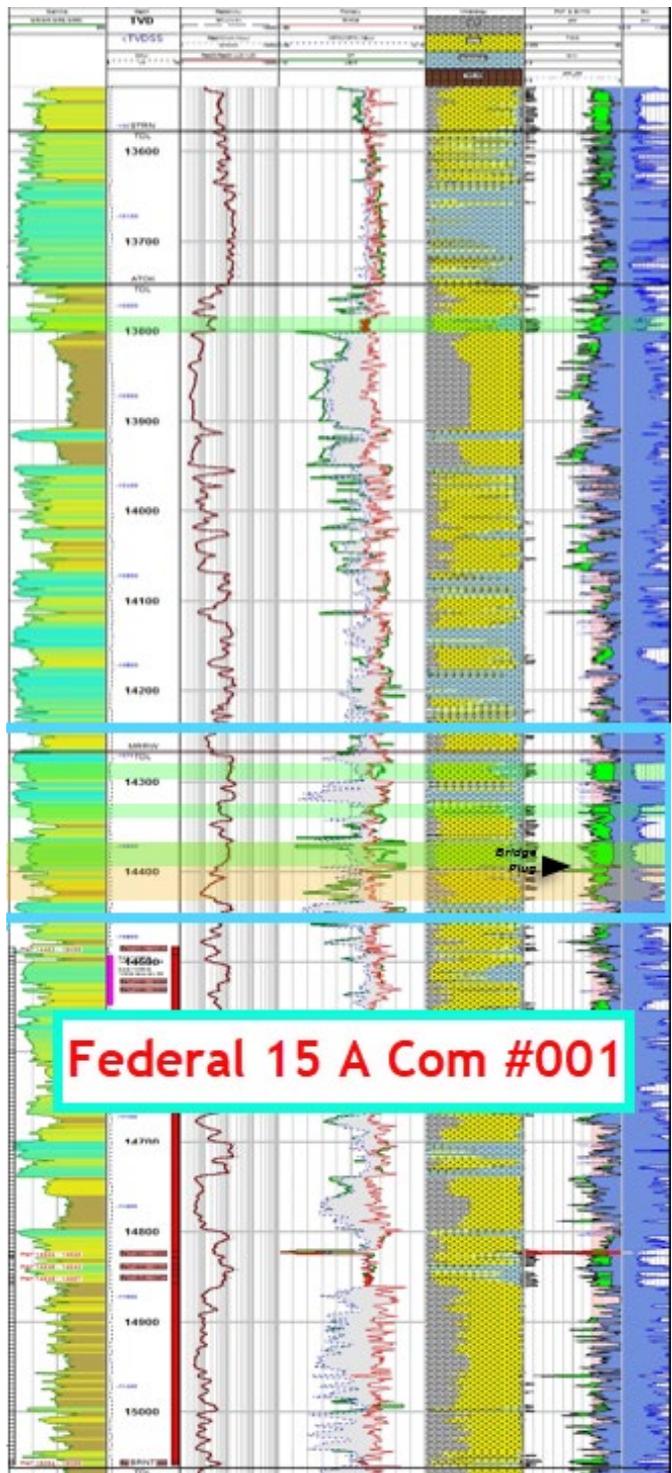
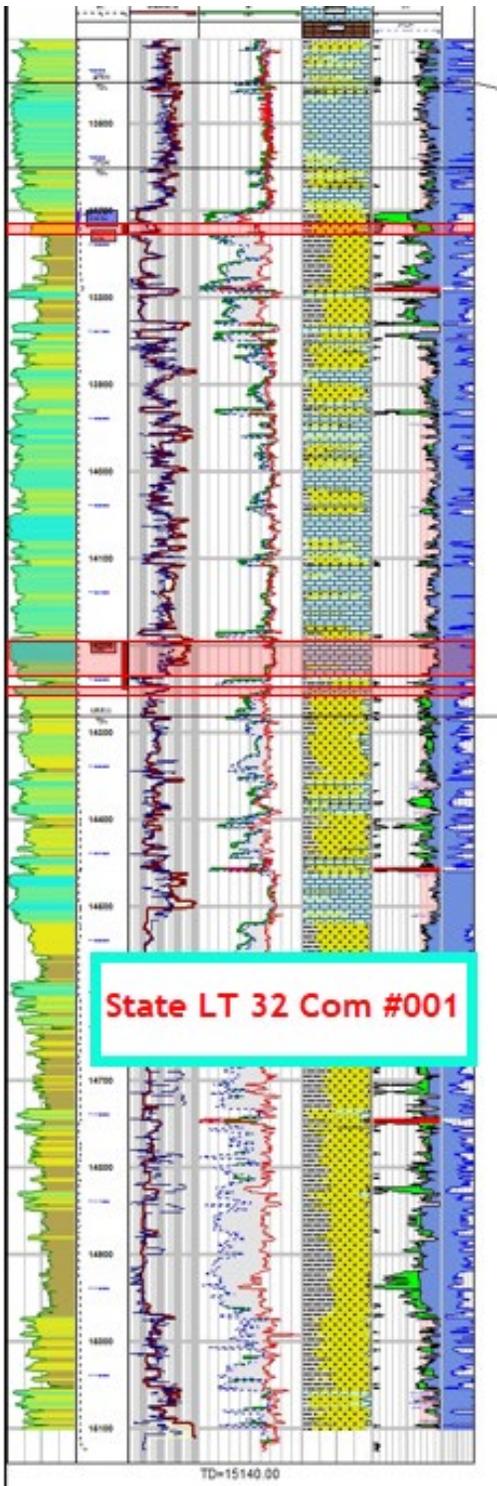
Federal 15 A Com #001 Original Production		
Date	Oil (BPM)	Gas (MCFPM)
Apr-03	9	383
May-03	0	0
Jun-03	0	1400
Jul-03	0	1275
Aug-03	0	2425
Sep-03	0	2606
Oct-03	0	3342
Nov-03	4	3566
Dec-03	0	4692
Jan-04	8	3503
Feb-04	10	1910
Mar-04	5	2105
Apr-04	30	4667
May-04	14	4471
Jun-04	2	3834
Jul-04	17	2904
Aug-04	0	2164
Sep-04	10	3165
Oct-04	8	2871
Nov-04	4	2521
Dec-04	5	1430
Jan-05	25	1377
Feb-05	14	2189
Mar-05	5	1488
Apr-05	25	1647
May-05	10	1588
Jun-05	6	1957
Jul-05	0	1974
Aug-05	0	1248
Sep-05	0	1076
Oct-05	0	1042
Nov-05	0	850
Dec-05	0	1454
Jan-06	0	1471
Feb-06	0	984
Mar-06	3	1133
Apr-06	0	1064
May-06	0	1441
Jun-06	0	557
Jul-06	0	1022
Aug-06	0	824
Sep-06	0	557
Oct-06	0	918
Nov-06	0	688
Dec-06	0	633
Jan-07	0	0
Feb-07	0	637
Mar-07	0	591
Apr-07	0	491
May-07	0	579
Jun-07	0	414
Jul-07	0	509
Aug-07	0	248
Sep-07	35	449
Oct-07	0	562
Nov-07	0	408
Dec-07	0	299
Jan-08	0	36
Feb-08	1	440
Mar-08	0	495
Apr-08	0	579
May-08	0	590
Jun-08	0	590
Jul-08	0	665
Aug-08	7	584
Sep-08	0	577
Oct-08	0	499
Nov-08	0	852
Dec-08	0	688
Jan-09	0	538
Feb-09	0	620
Mar-09	0	737
Apr-09	0	684

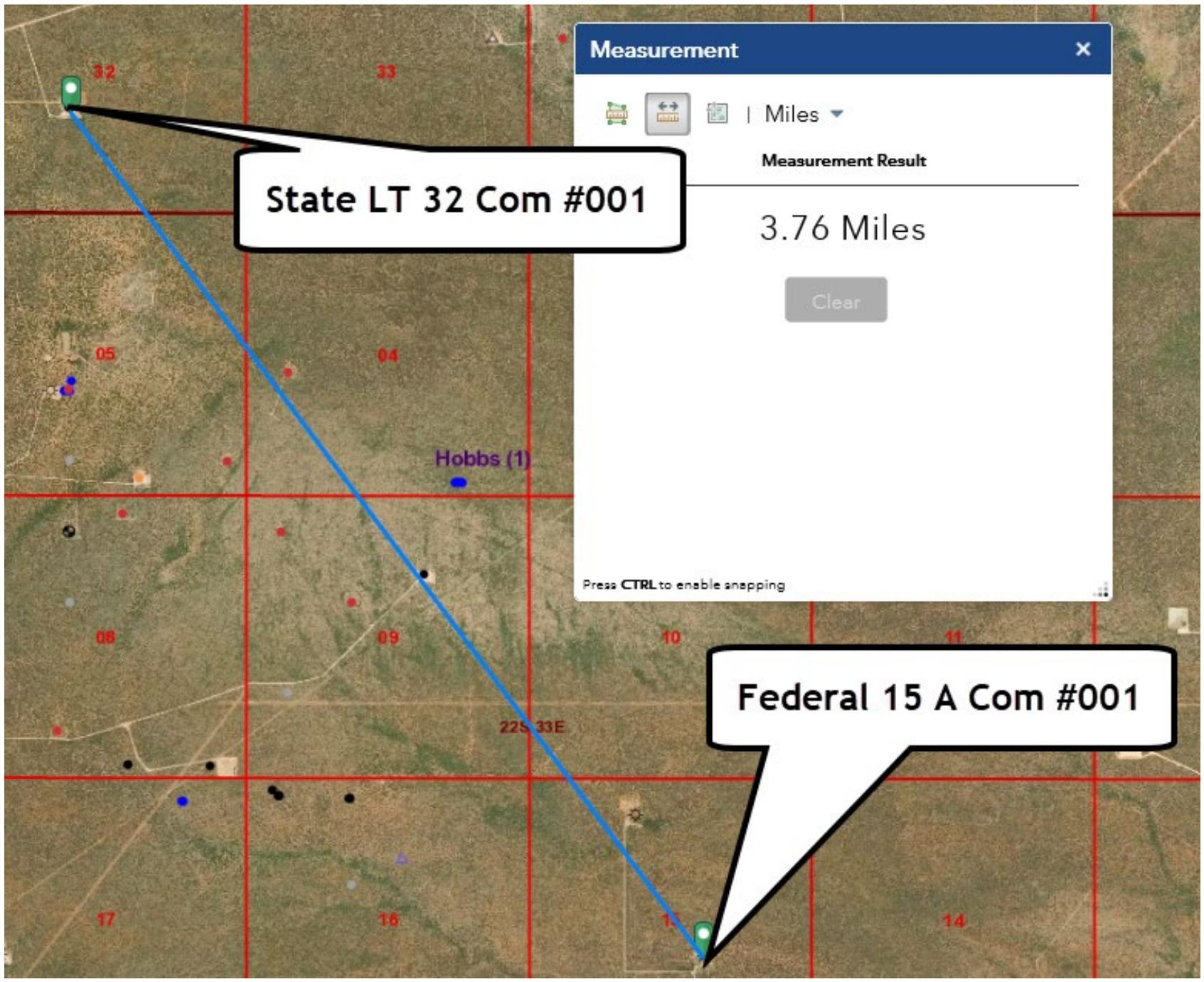
BOOTLEG RIDGE; MORROW, EAST (GAS) [72660]		
	Oil (BPM)	Gas (MCFPM)
Cumulative	257	98777
Allocated %		
Est	5%	47%

Synthetic Decline Curve		
Month	Oil (BPM)	Gas (MCFPM)
1	253	586
2	479	10872
3	149	19754
4	109	2337
5	367	4970
6	140	4759
7	170	7249
8	28	10154
9	77	9377
10	18	7938
11	627	6461
12	159	4238
13	749	5016
14	24	4849
15	197	4236
16	47	3712
17	42	2979
18	47	5904
19	53	6427
20	115	6011
21	41	5402
22	96	4896
23	72	5593
24	36	4446
25	60	3709
26	48	4238
27	47	4293
28	78	4420
29	66	3491
30	44	3073
31	29	3103
32	41	2690
33	44	2740
34	20	1605
35	8	1075
36	22	1383
37	18	1271
38	33	1740
39	19	638
40	124	1453
41	1	903
42	25	636
43	19	1236
44	28	846
45	22	797
46	14	237
47	27	837
48	14	764
49	8	608
50	22	720
51	17	759
52	19	562
53	30	500
54	60	635
55	75	744
56	16	584
57	49	355
58	25	75
59	75	628
60	44	532
61	25	786
62	13	618
63	6	645
64	19	945
65	24	612
66	47	642
67	25	581
68	2	891
69	42	733
70	0	583
71	9	652
72	0	774
73	0	725

Federal 15 A Com #001 - Production Rates







State LT 32 Com #001

**Measurement** [X]

[Icons] | Miles ▾

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Measurement Result

3.76 Miles

Clear

Press CTRL to enable snapping

Federal 15 A Com #001

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-025-27153</b>		<sup>2</sup> Pool Code <b>98345</b>	<sup>3</sup> Pool Name <b>WC-025 S22315J; ATOKA (GAS)</b>
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>FEDERAL 15 A COM</b>		<sup>6</sup> Well Number <b>1</b>
<sup>7</sup> OGRID No. <b>372098</b>	<sup>8</sup> Operator Name <b>MARATHON OIL PERMIAN LLC</b>		<sup>9</sup> Elevation <b>3550'</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	15	22S	33E		1980	SOUTH	1980	EAST	LEA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	15	22S	33E		1477	SOUTH	171	WEST	LEA

<sup>12</sup> Dedicated Acres <b>320.0</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p><b>Infill Well</b></p>	<p><b>CORNER COORDINATES NAD 83, SPCS NM EAST</b> A - X: 777306.80' / Y: 507105.32' B - X: 782588.18' / Y: 507136.17' C - X: 782605.21' / Y: 504497.33' D - X: 777327.33' / Y: 504465.81'</p>	<p><b>CORNER COORDINATES NAD 27, SPCS NM EAST</b> A - X: 736124.20' / Y: 507044.75' B - X: 741405.55' / Y: 507075.59' C - X: 741422.52' / Y: 504436.83' D - X: 736144.68' / Y: 504405.32'</p>	<p><b><sup>17</sup> OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p><i>[Signature]</i>      3/18/2020 Signature      Date</p> <p><b>Adrian Covarrubias</b> Printed Name</p> <p>E-mail Address</p>
	<p>SECTION 9      SECTION 10      SECTION 11 SECTION 16      SECTION 15      SECTION 14</p> <p>SECTION 16      SECTION 15      SECTION 14 SECTION 21      SECTION 22      SECTION 23</p> <p>SHEET 1 OF 1 JOB No. R3948_002 REV 0 JCS 3/12/2020</p>	<p><b><sup>18</sup> SURVEYOR CERTIFICATION</b> I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-stakes surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by R-squared Global.</p> <p>March 12, 2020 Date of Survey</p> <p><i>[Signature]</i> Signature and Seal of Professional Surveyor</p> <p>Certificate Number LLOYD P. SHORT 21653</p>	

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99983586 Convergence Angle: 00°28'49.280016"

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
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State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-025-27153</b>		<sup>2</sup> Pool Code <b>72660</b>	<sup>3</sup> Pool Name <b>BOOTLEG RIDGE; MORROW, EAST (GAS)</b>
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>FEDERAL 15 A COM</b>		<sup>6</sup> Well Number <b>1</b>
<sup>7</sup> OGRID No. <b>372098</b>	<sup>8</sup> Operator Name <b>MARATHON OIL PERMIAN LLC</b>		<sup>9</sup> Elevation <b>3550'</b>

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	15	22S	33E		1980	SOUTH	1980	EAST	LEA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	15	22S	33E		1477	SOUTH	171	WEST	LEA

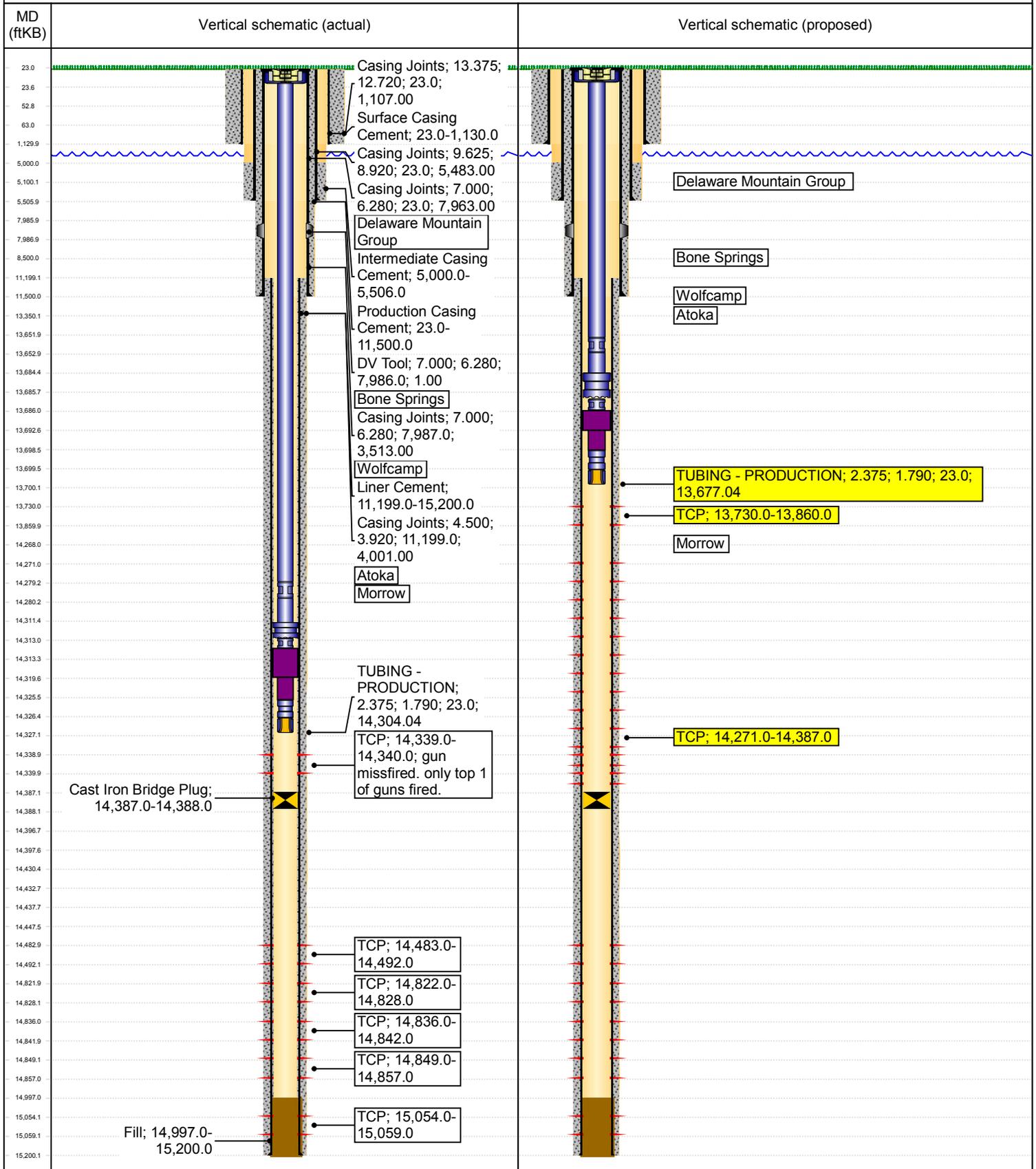
<sup>12</sup> Dedicated Acres <b>320.0</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
---	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

Infill Well	<b>CORNER COORDINATES NAD 83, SPCS NM EAST</b> A - X: 777306.80' / Y: 507105.32' B - X: 782588.18' / Y: 507136.17' C - X: 782605.21' / Y: 504497.33' D - X: 777327.33' / Y: 504465.81'		<b>CORNER COORDINATES NAD 27, SPCS NM EAST</b> A - X: 736124.20' / Y: 507044.75' B - X: 741405.55' / Y: 507075.59' C - X: 741422.52' / Y: 504436.83' D - X: 736144.68' / Y: 504405.32'		
	SECTION 9		SECTION 10		
SECTION 16		SECTION 15		SECTION 14	
SECTION 16		SECTION 15		SECTION 14	
SECTION 21		SECTION 22		SECTION 23	
SECTION 16		SECTION 15		SECTION 14	
SECTION 21		SECTION 22		SECTION 23	
<b>SURFACE HOLE LOCATION</b> 1980' FSL 1980' FEL, SECTION 15 NAD 83, SPCS NM EAST X: 780612.48' / Y: 506463.06' LAT: 32.38995194N / LON: 103.55816024W NAD 27, SPCS NM EAST X: 739429.85' / Y: 506402.51' LAT: 32.38982844N / LON: 103.55767630W					
<b><sup>17</sup> OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  <b>3/18/2020</b> Signature Date <b>Adrian Covarrubias</b> Printed Name E-mail Address					
<b><sup>18</sup> SURVEYOR CERTIFICATION</b> I hereby certify that the well surface location shown on this plat was plotted from field notes of the as-stakes surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Data used for underground measurements were provided by others for reference only and does not constitute field measurements performed by R-squared Global. March 12, 2020 Date of Survey  Signature and Seal of Professional Surveyor Certificate Number <b>LLOYD P. SHORT 21653</b>					
SHEET 1 OF 1 JOB No. R3948_002 REV 0 JCS 3/12/2020					

State/Province NEW MEXICO	Country UNITED STATES	Field Name BOOTLEG RIDGE EAST	Latitude (°) 32.38984310	Longitude (°) -103.55768200	North/South Distance (ft) 1,980.0	North/South Reference FSL
API/ IPO UWI	KB-Ground Distance (ft)	KB-Mud Line Distance (ft)	Ground Elevation (ft)	Drilling Rig Spud Date	Well Original Completion Date	Well First Production Date

FEDERAL 15 A COM 1, 3/18/2020 2:33:23 PM





Certificate of Analysis  
 Number: 6030-20040178-001A

Artesia Laboratory  
 200 E Main St.  
 Artesia, NM 88210  
 Phone 575-746-3481

Teresa Edwards  
 Marathon Oil Corporation  
 4111 S. Tidwell  
 Carlsbad, NM 88220

Apr. 27, 2020

Station Name: FED 15A COM 1  
 Station Number: WELLHEAD  
 Sample Point: WELLHEAD  
 Type of Sample: Spot-Cylinder  
 Heat Trace Used: N/A  
 Sampling Method: Fill and Purge  
 Sampling Company: SPL  
 Analyzed: 04/27/2020 11:56:46 by User1

Sampled By: Mike West  
 Sample Of: Gas Spot  
 Sample Date: 04/24/2020  
 Sample Conditions: 500 psig, @ 60 °F Ambient: 75 °F  
 Effective Date: 04/24/2020  
 Method: GPA-2261M  
 Cylinder No: 1111-002572  
 Instrument: 6030\_GC2 (Agilent 7890B)  
 Last Inst. Cal.: 03/02/2020 9:09 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.65 psia		
Nitrogen	28.732	29.23633	36.449		GPM TOTAL C2+	2.028
Methane	58.921	59.95521	42.805		GPM TOTAL C3+	1.001
Carbon Dioxide	3.756	3.82193	7.486		GPM TOTAL iC5+	0.337
Ethane	3.790	3.85653	5.161	1.027		
Propane	1.365	1.38896	2.726	0.381		
Iso-butane	0.364	0.37039	0.958	0.121		
n-Butane	0.506	0.51488	1.332	0.162		
Iso-pentane	0.288	0.29306	0.941	0.107		
n-Pentane	0.201	0.20453	0.657	0.074		
Hexanes Plus	0.352	0.35818	1.485	0.156		
	98.275	100.00000	100.000	2.028		

Calculated Physical Properties	Total	C6+
Relative Density Real Gas	0.7770	3.2176
Calculated Molecular Weight	22.47	93.19
Compressibility Factor	0.9981	
<b>GPA 2172 Calculation:</b>		
<b>Calculated Gross BTU per ft<sup>3</sup> @ 14.65 psia &amp; 60°F</b>		
Real Gas Dry BTU	775	5113
Water Sat. Gas Base BTU	762	5024
Ideal, Gross HV - Dry at 14.65 psia	773.5	5113.2
Ideal, Gross HV - Wet	759.9	5023.7

Comments: H2S Field Content 0 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM 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.  
NMNM12846

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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. FEDERAL 15 A COM 1
2. Name of Operator MARATHON OIL PERMIAN LLC		9. API Well No. 30-025-27153
Contact: ADRIAN COVARRUBIAS E-Mail: acovarrubias@marathonoil.com		
3a. Address 5555 SAN FELIPE ST HOUSTON, TX 77056	3b. Phone No. (include area code) Ph: 713-296-3368	10. Field and Pool or Exploratory Area E BOOTLEG RIDGE
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 15 T22S R33E Mer NMP NWSE 1980FSL 1980FEL		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 checked="" 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 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 recomplete 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 recompletion 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.

Marathon is submitting the attached permit application to the OCD requesting to downhole commingle the Federal 15 A Com 1 from the following pools:

Bootleg Ridge; Morrow, East (Gas) - Pool Code 72660  
WC-025 S22315J; Atoka (Gas) - Pool Code 98345

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #512610 verified by the BLM Well Information System For MARATHON OIL PERMIAN LLC, sent to the Hobbs</b>	
Name (Printed/Typed) ADRIAN COVARRUBIAS	Title REGULATORY PROFESSIONAL
Signature (Electronic Submission)	Date 04/24/2020

**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 \*\***