

Revised March 23, 2017

RECEIVED: 10/10/2018	REVIEWER:	TYPE: PLC	APP NO: DNAM 1831050 DNAM 18283 59760 495
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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

Applicant: Marathon Oil Permian LLC	OGRID Number: 372098
Well Name: Grama Ridge 8 State Com 2H, 3H, 5H	API: 30-025-43607, 43608, 43610
Pool: Grama Ridge Wolfcamp West; Grama Ridge Bone Spring West	Pool Code: 97393; 28432

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 PCMA OLS OLM
- [II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

Handwritten notes:
 DCA-523
 CTA 878

- 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	
<input type="checkbox"/>	Notice Complete
<input type="checkbox"/>	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.

Jennifer Van Curen

Print or Type Name

Signature of Jennifer Van Curen

10-2-18
 Date

713-296-2500
 Phone Number

jvancuren@marathonoil.com
 e-mail Address

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-107-B
Revised August 1, 2011

OIL CONSERVATION DIVISION
1220 S. St Francis Drive
Santa Fe, New Mexico 87505

Submit the original application to the Santa Fe office with one copy to the appropriate District Office.

APPLICATION FOR SURFACE COMMINGLING (DIVERSE OWNERSHIP)

OPERATOR NAME: Marathon Oil Permian LLC
OPERATOR ADDRESS: 5555 San Felipe St., Houston, TX 77057
APPLICATION TYPE:
 Pool Commingling Lease Commingling Pool and Lease Commingling Off-Lease Storage and Measurement (Only if not Surface Commingled)
LEASE TYPE: Fee State Federal

Is this an Amendment to existing Order? Yes No If "Yes", please include the appropriate Order No. _____
Have the Bureau of Land Management (BLM) and State Land office (SLO) been notified in writing of the proposed commingling
 Yes No

(A) POOL COMMINGLING

Please attach sheets with the following information

(1) Pool Names and Codes	Gravities / BTU of Non-Commingled Production	Calculated Gravities / BTU of Commingled Production	Calculated Value of Production	Calculated Value of Commingled Production	Volumes
Grama Ridge; Wolfcamp, West (97393)	42.34/1260	42.17/1249	3.09 / 72.07		attached
Grama Ridge; Bone Spring, West (28432)	42/1238		3.09 / 72.07		attached
			3.09 / 72.07		
			3.09 / 72.07		

(2) Are any wells producing at top allowables? Yes No
(3) Has all interest owners been notified by certified mail of the proposed commingling? Yes No.
(4) Measurement type: Metering Other (Specify) _____
(5) Will commingling decrease the value of production? Yes No If "yes", describe why commingling should be approved _____

(B) LEASE COMMINGLING

Please attach sheets with the following information

(1) Pool Name and Code.
(2) Is all production from same source of supply? Yes No
(3) Has all interest owners been notified by certified mail of the proposed commingling? Yes No
(4) Measurement type: Metering Other (Specify) _____

(C) POOL and LEASE COMMINGLING

Please attach sheets with the following information

(1) Complete Sections A and E.

(D) OFF-LEASE STORAGE and MEASUREMENT

Please attached sheets with the following information

(1) Is all production from same source of supply? Yes No
(2) Include proof of notice to all interest owners.

(E) ADDITIONAL INFORMATION (for all application types)

Please attach sheets with the following information

(1) A schematic diagram of facility, including legal location.
(2) A plat with lease boundaries showing all well and facility locations. Include lease numbers if Federal or State lands are involved.
(3) Lease Names, Lease and Well Numbers, and API Numbers.

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

SIGNATURE: Jennifer Van Curen TITLE: Sr. Regulatory Compliance Rep. DATE: 10-2-18
TYPE OR PRINT NAME: Jennifer Van Curen TELEPHONE NO.: 713-296-2500
E-MAIL ADDRESS: jvancuren@marathonoil.com

The central tank battery is located on the Grama Ridge 8 State multi-well pad location in Sec 8, T22S, R34E. The production from each well will flow through its own three phase metering separator with a Micro Motion Coriolis Meter to meter the oil, Mag meter to meter the water, and an orifice meter to meter the gas. VRU gas will be allocated back to each well utilizing a percentage of each wells monthly oil production. After the water is measured with the Mag meter, it is combined with the water for the other wells and with any water knockout from the heater treater and sent to the water tanks. The water tanks have guided wave radar level transmitters which can detect oil/water interfaces. If an interface is seen the operator will use the recycle pump to pump this interface and any oil to the heater treater for further processing.

The Grama Ridge 8 State CTB will have oil tanks that these three wells will utilize and they have a common CDP, (Central Delivery Point) **(Number provided upon receipt)** which is located on site. Oil, gas, and water volumes from each well producing to this battery will be determined by using individual metering allocation separator. Oil sold through a common sales line for tanks (information provided upon receipt).

Oil production will be allocated on a daily basis based on the Coriolis Test meter located downstream of the metering test separator and daily tank gauges and truck LACT. The Coriolis meters will be proven, as per API & NMOCD specifications, when installed, once every 3 months (to establish a consistent repeatability factor), and then semi-annually thereafter, the factor obtained will be used to allocate the production volumes. Gas production will be allocated on a daily basis utilizing the gas test meters for each well. The gas production from the wells and the gas test meters will commingle and flow to an allocation meter and then to the CDP sales meter, **(number provided upon receipt)** these meters will be calibrated on a regular basis per API & NMOCD specifications. The OCD will be notified of any future changes in the facilities.

Process and Flow Descriptions:

The flow of produced fluids is shown in detail on the enclosed Grama Ridge 8 State Com CTB Process Flow Diagrams along with a description of each vessel. The commingling of this production is the most effective, economic means of producing the reserves and will not result in reduced royalty or improper measurement of production. The proposed commingling will reduce the surface facility footprint and overall emissions.

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

¹ API Number 025-43607	² Pool Code 28432	³ Pool Name
⁴ Property Code	⁵ Property Name GRAMA RIDGE 8 STATE COM	
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN, LLC	⁶ Well Number 2H ⁹ Elevation 3536

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
0	8	T22S	R34E		250	SOUTH	1965	EAST	LEA

¹¹ 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
B	8	T22S	R34E		331	NORTH	2297	EAST	LEA

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

¹⁶	<p>CORNER COORDINATES NAD 83, SPCS NM EAST A - Y: 515175.84 / X: 800959.78 B - Y: 515184.70 / X: 802276.31 C - Y: 509905.80 / X: 802309.73 D - Y: 509897.25 / X: 800992.82</p>	<p>CORNER COORDINATES NAD 27, SPCS NM EAST A - Y: 515115.81 / X: 759777.43 B - Y: 515123.86 / X: 761093.62 C - Y: 509845.12 / X: 761126.93 D - Y: 509836.58 / X: 759810.06</p>	<p>¹⁷ OPERATOR CERTIFICATION 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. Signature: <i>Jennifer Van Curen</i> Date: 2/15/18 Printed Name: Jennifer Van Curen E-mail Address:</p>
SECTION 6	SECTION 5	SECTION 4	<p>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was obtained from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey: Signature and Seal of Professional Surveyor: THIS DOCUMENT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION OR ANY OTHER PURPOSE WITHOUT THE INSURANCE OF A PERMIT.</p>
SECTION 7	SECTION 8 LAST TAKE POINT/BOTTOM HOLE LOCATION 16,115 MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST Y514847.23 / X801298.19 LAT32.41256621N / LDN103.49093727W NAD 27, SPCS NM EAST Y514786.41 / X760115.52 LAT32.41244237N / LDN103.49045484W	SECTION 9	
	<p>FIRST TAKE POINT 11,454 MEASURED DEPTH IN FEET NAD 83, SPCS NM EAST Y510229.33 / X801311.71 LAT32.39987348N / LDN103.49101134W NAD 27, SPCS NM EAST Y510168.65 / X760128.95 LAT32.39974962N / LDN103.49052928W</p> <p>MEASURED DEPTH = 12,525' 330'</p>	<p>PRODUCING AREA</p>	
	<p>SURFACE HOLE LOCATION 250' FSL 1965' FEL, SECTION 8 NAD 83, SPCS NM EAST Y510152.00' / X801659.87' LAT32.39965340N / LDN103.48988538W NAD 27, SPCS NM EAST Y510091.32' / X760477.10' LAT32.39952953N / LDN103.48940338W</p> <p>MEASURED DEPTH = 11,670' 310'</p>	<p>FIRST TAKE</p>	
SECTION 7	SECTION 8	SECTION 9	
SECTION 17	SECTION 16	SECTION 15	

NOTE: ALL DEMINSIONS IN U.S. FEET

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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

¹ API Number 30-025-43608		² Pool Code 97393	³ Pool Name GRAMA RIDGE; WOLF CAMP, WEST
⁴ Property Code 316265	⁵ Property Name GRAMA RIDGE 8 STATE COM		⁶ Well Number 3H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN, LLC		⁹ Elevation 3550

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
P	8	T22S	R34E		150	SOUTH	695	EAST	LEA

¹¹ 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
A	8	T22S	R34E		332	NORTH	990	EAST	LEA

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

¹⁶ CORNER COORDINATES NAD 83, SPCS NH EAST A - Y: 515173.84 / X: 800959.78 B - Y: 515193.56 / X: 803592.84 C - Y: 509914.42 / X: 803626.54 D - Y: 509897.25 / X: 800992.82		CORNER COORDINATES NAD 27, SPCS NH EAST A - Y: 515113.01 / X: 759777.13 B - Y: 515132.72 / X: 762410.72 C - Y: 509853.74 / X: 762443.71 D - Y: 509836.58 / X: 759810.06		¹⁷ OPERATOR CERTIFICATION 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. Signature: <i>Jennifer Van Curen</i> Date: 2/23/2018 Printed Name: Jennifer Van Curen E-mail Address: jvancuren@marathonoil.com	
SECTION 6	SECTION 5	SECTION 8	SECTION 4	SECTION 9	SECTION 9
SECTION 7	LAST TAKE POINT/BOTTOM HOLE LOCATION 15,108' MEASURED DEPTH IN FEET NAD 83, SPCS NH EAST Y514855.04 / X802605.60 LAT32.41255928N / LDN103.48670083W NAD 27, SPCS NH EAST Y514794.21 / X761422.90 LAT32.41243541N / LDN103.48621862W		SECTION 9	SECTION 9	SECTION 9
		FIRST TAKE POINT 10,472' MEASURED DEPTH IN FEET NAD 83, SPCS NH EAST Y510237.94 / X802637.26 LAT32.39986837N / LDN103.48671674W NAD 27, SPCS NH EAST Y510177.25 / X761454.46 LAT32.39974448N / LDN103.48623490W	SECTION 9	SECTION 9	SECTION 9
		SURFACE HOLE LOCATION 150' FSL 695' FEL, SECTION 8 NAD 83, SPCS NH EAST Y510059.60' / X802930.34' LAT32.39937215N / LDN103.48577110W NAD 27, SPCS NH EAST Y509998.92' / X761747.73' LAT32.39924825N / LDN103.48528932W	SECTION 9	SECTION 9	SECTION 9
SECTION 7	SECTION 8		SECTION 9	SECTION 9	SECTION 9
SECTION 17	SECTION 16		SECTION 9	SECTION 9	SECTION 15

NOTE: ALL DEMINSIONS IN U.S. FEET

Ryan Gyllenband
Senior Land Professional



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

October 3, 2018

DELIVERED VIA:
Certified Mail

Re: Marathon Oil Permian LLC Application for Surface Commingling (Diverse Ownership)
Grama Ridge State 2H, 3H and 5H Wells
E/2 of Section 8, T22S-R34E
Lea County, New Mexico

To whom it my concern:

Marathon Oil Permian LLC ("Marathon") has filed the attached application with the New Mexico Oil Conservation Division ("Division") for administrative approval to surface lease commingle production according to the provisions of NMAC 19.15.12.10.C from the Grama Ridge; Bone Springs, West (Oil) Pool (28432) from the Grama Ridge State 2H and the Grama Ridge State 5H wells located in the W/2 E/2 160 acre spacing and proration unit with the Grama Ridge 3H well located in the E/2 E/2 160 acre spacing and proration unit all located in Section 8, T22S-R34E, Lea County, New Mexico.

As an interest owner in these wells, Marathon is required to notify you of this application. Should you have an objection you must file it in writing with the Division no later than 20 days from the date of this letter (the Division's address is 1220 South St. Francis Drive, Santa Fe, NM 87505).

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

Sincerely,

Ryan Gyllenband

Ryan Gyllenband
Senior Land Professional
Lea County, New Mexico

Marathon Oil Permian LLC Application For Surface Commingling (Diverse Ownership)
Grama Ridge State 2H, 3H and 5H Wells

Subject wells:

- Grama Ridge 8 State Com 2H: API # 30-025-43607
 - SHL 250' FSL, 1,965' FEL Section 8, 22S-34E
 - BHL 331' FNL, 2,297' FEL Section 8, 22S-34E
- Grama Ridge 8 State Com 3H: API # 30-025-43608
 - SHL 150' FSL, 695' FEL Section 8, 22S-34E
 - BHL 332' FNL, 990' FEL Section 8, 22S-34E
- Grama Ridge 8 State Com 5H: API # 30-025-436010
 - SHL 250' FSL, 1,995' FEL Section 8, 22S-34E
 - BHL 331' FNL, 2,256' FEL Section 8, 22S-34E

Well	Name	Address	Address 2	Attendant	FED Exr or Certified Tracking #	Date Certified Modified:
Grana Ridge SC	B and V Royalty LLC	P.O. Box 568	Artesia, NM 86211		91 7199 9991 7037 7637 3582	10/4/2018
Grana Ridge SC	Baroshel Properties	P.O. Box 746	Stanton, TX 79782		91 7199 9991 7037 7637 3650	10/4/2018
Grana Ridge SC	Cimarox Energy Co.	600 N. Marienfeld, Suite 600	Midland, TX 79701		91 7199 9991 7037 7637 3575	10/4/2018
Grana Ridge SC	Gary Wyrwll Whitlow	P.O. Box 410	Hawkins, TX 75765		91 7199 9991 7037 7637 3606	10/4/2018
Grana Ridge SC	Gayma Lea Smith	13055 Fieldstone Loop	Austin, TX 78737		91 7199 9991 7037 7637 3629	10/4/2018
Grana Ridge SC	Linda Kay Whitlow	315 John Pryce	Blanco, TX 78606		91 7199 9991 7037 7637 3612	10/4/2018
Grana Ridge SC	Oak Valley Mineral and Land LP, Foundation Minerals, and Harros Minerals II LLC	P.O. Box 50820	Midland, TX 79710		91 7199 9991 7037 7637 3643	10/4/2018
Grana Ridge SC	Phil Kisiak	5180 N. Soldier Tr.	Tucson, AZ 85749		91 7199 9991 7037 7637 3636	10/4/2018
Grana Ridge SC	Sally Meader Roberts	P.O. Box 4245	Midland, TX 79704		91 7199 9991 7037 7637 3599	10/4/2018
Grana Ridge SC	The State of New Mexico	P.O. Box 1148	Santa Fe, NM 87504		91 7199 9991 7037 7637 3568	10/4/2018

Well Name	Grama Ridge State 2H	Grama Ridge State 5H	Grama Ridge State 3H
Formation	Bone Spring	Bone Spring	Bone Spring
Spacing Unit	W/2 E/2 - 160 acres	W/2 E/2 - 160 acres	E/2 E/2 - 160 acres

Owner Name			
Marathon Oil Permian LLC	0.75000000	0.75000000	0.75000000
The State of New Mexico	0.17708334	0.17708334	0.17708334
Cimarex Energy Co.	0.03125000	0.03125000	0.03125000
B and V Royalty LLC	0.02224767	0.02224767	0.01522769
Sally Meader Roberts	0.00500000	0.00500000	0.00500000
<i>B and V Royalty LLC</i>	0.00484605	0.00484605	0.00961605
Gary Wyvil Whitlow	0.00166667	0.00166667	0.00166667
Ling Kay Whitlow	0.00166667	0.00166667	0.00166667
Gayna Lea Smith	0.00166666	0.00166666	0.00166666
Phil Kislak	0.00165625	0.00165625	0.00165625
Foundation Minerals	0.00145835	0.00145835	0.00145834
Mavros Minerals II LLC	0.00131251	0.00131251	0.00131250
Oak Valley Mineral and Land LP	0.00014583	0.00014583	0.00014583
Baroshel Properties	0.00000000	0.00000000	0.00225000
Total	1.00000000	1.00000000	1.00000000

Inficon Micro GC Fusion F08904 R03RR2

Sample Information	
Sample Name	Marathon__ Grama Ridge 8 State 2H Allocation__ GC1-9618-23
Station Number	43607GP
Lease Name	Grama Ridge 8 State 2H Allocation
Analysis For	Marathon Oil
Producer	Marathon Oil
Field Name	N/A
County/State	Lea, NM
Frequency/Spot Sample	Quarterly
Sampling Method	Fill Empty
Sample Deg F	90
Atmos Deg F	80
Flow Rate	100
Line PSIG	100
Date/Time Sampled	8-31-18
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Cameron Rivera
Analysis By	Pat Silvas
Verified/Calibration Date	9-4-18
Report Date	2018-09-06 13:27:32

Component Results

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.180	10457.6	2.12718	21271.800	0.000
H2S	46.000	0.0	0.00000	0.000	0.000
Methane	23.020	294556.0	77.04184	770418.400	0.000
Carbon Dioxide	26.860	1161.2	0.19791	1979.100	0.000
Ethane	37.120	70029.1	10.95331	109533.100	2.940
Propane	79.280	45438.3	5.29454	52945.400	1.464
i-butane	28.760	47153.9	0.71430	7143.000	0.235
n-Butane	30.360	117740.8	1.71846	17184.600	0.544
i-pentane	35.480	34225.1	0.42377	4237.700	0.156
n-Pentane	37.580	36491.1	0.43980	4398.000	0.160
Hexanes Plus	120.000	92184.0	1.08889	10888.900	0.474
Total:			100.00000	1000000.000	5.972

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	96.76382	
Pressure Base (psia)	14.730	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1277.9	1255.6
Gross Heating Value (BTU / Real cu.ft.)	1282.7	1260.9
Relative Density (G), Ideal	0.7500	0.7478
Relative Density (G), Real	0.7526	0.7506
Compressibility (Z) Factor	0.9962	0.9958

Inficon Micro GC Fusion F08904 R03RR2

Sample Information	
Sample Name	Marathon__Grama Ridge 8 State 3H Allocation__GC2-9618-22
Station Number	43608GP
Lease Name	Grama Ridge 8 State 3H Allocation
Analysis For	Marathon Oil
Producer	Marathon Oil
Field Name	N/A
County/State	Lea,NM
Frequency/Spot Sample	Quarterly
Sampling Method	Fill Empty
Sample Deg F	90
Atmos Deg F	80
Flow Rate	100
Line PSIG	100
Date/Time Sampled	8-31-18
Cylinder Number	280
Cylinder Clean Date	N/A
Sampled By	Cameron Rivera
Analysis By	Pat Silvas
Verified/Calibration Date	9-4-18
Report Date	2018-09-06 13:19:21

Component Results

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.760	35656.6	2.68413	26841.300	0.000
H2S	0.000	0.0	0.00000	0.000	0.000
Methane	23.560	770057.6	75.69019	756901.900	0.000
Carbon Dioxide	27.440	4570.4	0.29123	2912.300	0.000
Ethane	37.080	197613.1	11.79501	117950.100	3.165
Propane	77.840	130197.1	5.90188	59018.800	1.631
i-butane	28.620	57600.7	0.75842	7584.200	0.249
n-Butane	30.120	141743.0	1.78690	17869.000	0.565
i-pentane	34.720	34596.8	0.36465	3646.500	0.134
n-Pentane	36.460	35351.5	0.36043	3604.300	0.131
Hexanes Plus	120.000	39265.0	0.36716	3671.600	0.160
Total:			100.00000	1000000.000	6.036

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	100.22649	
Pressure Base (psia)	14.730	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1255.4	1233.6
Gross Heating Value (BTU / Real cu.ft.)	1260.0	1238.6
Relative Density (G), Ideal	0.7429	0.7408
Relative Density (G), Real	0.7453	0.7435
Compressibility (Z) Factor	0.9964	0.9959

Inficon Micro GC Fusion F08904 R03RR2

Sample Information	
Sample Name	Marathon__Grama Ridge 8 State 5H Allocation__GC1-9618-21
Station Number	43610GP
Lease Name	Grama Ridge 8 State 5H Allocation
Analysis For	Marathon Oil
Producer	Marathon Oil
Field Name	N/A
County/State	Lea,NM
Frequency/Spot Sample	Quarterly
Sampling Method	Fill Empty
Sample Deg F	90
Atmos Deg F	80
Flow Rate	100
Line PSIG	100
Date/Time Sampled	8-31-18
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Cameron Rivera
Analysis By	Pat Silvas
Verified/Calibration Date	9-4-18
Report Date	2018-09-06 12:55:36

Component Results

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.160	10979.9	2.24317	22431.700	0.000
H2S	46.000	0.0	0.00000	0.000	0.000
Methane	23.000	285228.4	74.92793	749279.300	0.000
Carbon Dioxide	26.800	1807.4	0.30940	3094.000	0.000
Ethane	36.900	77040.2	12.10253	121025.300	3.248
Propane	78.900	52988.3	6.20125	62012.500	1.715
i-butane	28.700	52968.4	0.80588	8058.800	0.265
n-Butane	30.260	134198.1	1.96722	19672.200	0.622
i-pentane	35.320	32726.3	0.40699	4069.900	0.149
n-Pentane	37.380	33699.7	0.40793	4079.300	0.148
Hexanes Plus	120.000	52909.0	0.62770	6277.000	0.273
Total:			100.00000	100000.000	6.421

Results Summary

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	96.34313	
Pressure Base (psia)	14.730	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1285.2	1262.8
Gross Heating Value (BTU / Real cu.ft.)	1290.1	1268.2
Relative Density (G), Ideal	0.7576	0.7553
Relative Density (G), Real	0.7602	0.7582
Compressibility (Z) Factor	0.9961	0.9957

COMPLETIONNAME	PRODUCTIONDATE	ALLOCATEDOILPRODUCTION	ALLOCATEDGASPRODUCTION	ALLOCATEDWATERPRODUCTION
Grama Ridge 8 State 2H	8/1/2018 0:00	213.4544445	310.8672921	278
Grama Ridge 8 State 2H	8/2/2018 0:00	398.0102108	319.6926137	117
Grama Ridge 8 State 2H	8/3/2018 0:00	375.5035929	373.1705873	0
Grama Ridge 8 State 2H	8/4/2018 0:00	122.4643863	307.5457381	944
Grama Ridge 8 State 2H	8/5/2018 0:00	260.9652817	288.4557348	344
Grama Ridge 8 State 2H	8/6/2018 0:00	240.6605224	299.3366045	320
Grama Ridge 8 State 2H	8/7/2018 0:00	263.2660849	295.5310818	352
Grama Ridge 8 State 2H	8/8/2018 0:00	223.2036364	297.9141698	296
Grama Ridge 8 State 2H	8/9/2018 0:00	214.0402414	295.7647435	252
Grama Ridge 8 State 2H	8/10/2018 0:00	270.8306826	298.9275729	410
Grama Ridge 8 State 2H	8/11/2018 0:00	238.9007665	292.8409511	296
Grama Ridge 8 State 2H	8/12/2018 0:00	226.3348382	285.6580584	314
Grama Ridge 8 State 2H	8/13/2018 0:00	264.4570692	287.4970378	359
Grama Ridge 8 State 2H	8/14/2018 0:00	184.1608622	266.9981909	237
Grama Ridge 8 State 2H	8/15/2018 0:00	241.3016708	258.1038782	288
Grama Ridge 8 State 2H	8/16/2018 0:00	312.4777132	258.848876	431
Grama Ridge 8 State 2H	8/17/2018 0:00	207.8060298	267.0924808	270
Grama Ridge 8 State 2H	8/18/2018 0:00	231.0485668	241.7466732	313
Grama Ridge 8 State 2H	8/19/2018 0:00	251.4732155	347.7691054	331
Grama Ridge 8 State 2H	8/20/2018 0:00	219.025055	242.9386945	294
Grama Ridge 8 State 2H	8/21/2018 0:00	159.8695024	248.7135966	207
Grama Ridge 8 State 2H	8/22/2018 0:00	216.395028	242.4298344	281
Grama Ridge 8 State 2H	8/23/2018 0:00	250.7085186	261.9496355	335
Grama Ridge 8 State 2H	8/24/2018 0:00	198.3343878	258.024668	273
Grama Ridge 8 State 2H	8/25/2018 0:00	293.8522078	258.795558	383
Grama Ridge 8 State 2H	8/26/2018 0:00	178.608451	250.3240616	233
Grama Ridge 8 State 2H	8/27/2018 0:00	214.2265367	249.2554356	266
Grama Ridge 8 State 2H	8/28/2018 0:00	181.1837931	245.367812	379
Grama Ridge 8 State 2H	8/29/2018 0:00	199.6336178	248.5285226	252
Grama Ridge 8 State 2H	8/30/2018 0:00	270.0548391	260.7224567	346
Grama Ridge 8 State 2H	8/31/2018 0:00	205.505363	251.3284867	290
Grama Ridge 8 State 2H	9/1/2018 0:00	220.7640067	243.7130937	295
Grama Ridge 8 State 2H	9/2/2018 0:00	174.8855232	272.863912	213
Grama Ridge 8 State 2H	9/3/2018 0:00	232.8665175	251.4368319	312
Grama Ridge 8 State 2H	9/4/2018 0:00	192.1903814	238.819104	319
Grama Ridge 8 State 2H	9/5/2018 0:00	158.4579789	202.3515852	214
Grama Ridge 8 State 2H	9/6/2018 0:00	225.5309184	155.8527462	279
Grama Ridge 8 State 2H	9/7/2018 0:00	163.6252772	173.7895603	200
Grama Ridge 8 State 2H	9/8/2018 0:00	184.8259803	173.1547768	244
Grama Ridge 8 State 2H	9/9/2018 0:00	281.2735216	170.5244283	277
Grama Ridge 8 State 2H	9/10/2018 0:00	228.1093327	171.8584015	264
Grama Ridge 8 State 2H	9/11/2018 0:00	228.9126609	161.6458405	239
Grama Ridge 8 State 2H	9/12/2018 0:00	214.0176662	326.2252206	321.5084461
Grama Ridge 8 State 2H	9/13/2018 0:00	1.91E+02	385.9924143	230
Grama Ridge 8 State 2H	9/14/2018 0:00	198.4033795	518.6124306	248
Grama Ridge 8 State 2H	9/15/2018 0:00	169.9223197	378.4280599	212
Grama Ridge 8 State 2H	9/16/2018 0:00	254.5073786	400.1881841	317
Grama Ridge 8 State 2H	9/17/2018 0:00	215.8269911	407.0086201	270
Grama Ridge 8 State 2H	9/18/2018 0:00	217.2969272	394.8257495	268
Grama Ridge 8 State 2H	9/19/2018 0:00	209.2135075	372.6447838	254
Grama Ridge 8 State 2H	9/20/2018 0:00	219.8138046	386.942167	234
Grama Ridge 8 State 2H	9/21/2018 0:00	188.1723358	390.3376836	212
Grama Ridge 8 State 2H	9/22/2018 0:00	112.9584	392.50978	208
Grama Ridge 8 State 2H	9/23/2018 0:00	251.6397506	447.5384469	522
Grama Ridge 8 State 2H	9/24/2018 0:00	240.7301595	273.3207799	290
Grama Ridge 8 State 2H	9/25/2018 0:00	212.9883048	408.7778357	262
Grama Ridge 8 State 2H	9/26/2018 0:00	0	0	0

COMPLETIONNAME	PRODUCTIONDATE	ALLOCATEDOILPRODUCTION	ALLOCATEDGASPRODUCTION	ALLOCATEDWATERPRODUCTION
Grama Ridge 8 State 3H	8/1/2018 0:00	181.5360229	673.4030021	230
Grama Ridge 8 State 3H	8/2/2018 0:00	94.52742507	688.372154	97
Grama Ridge 8 State 3H	8/3/2018 0:00	0	811.9951886	0
Grama Ridge 8 State 3H	8/4/2018 0:00	355.3192052	684.0110647	779
Grama Ridge 8 State 3H	8/5/2018 0:00	223.5438451	661.8073879	288
Grama Ridge 8 State 3H	8/6/2018 0:00	208.2450235	694.9520621	267
Grama Ridge 8 State 3H	8/7/2018 0:00	228.4220443	693.989576	301
Grama Ridge 8 State 3H	8/8/2018 0:00	189.9188836	689.9047054	245
Grama Ridge 8 State 3H	8/9/2018 0:00	183.306258	692.0761825	213
Grama Ridge 8 State 3H	8/10/2018 0:00	228.5672958	700.7445186	337
Grama Ridge 8 State 3H	8/11/2018 0:00	213.8107317	684.5285011	251
Grama Ridge 8 State 3H	8/12/2018 0:00	184.8551467	679.426843	263
Grama Ridge 8 State 3H	8/13/2018 0:00	229.1324788	690.2514811	304
Grama Ridge 8 State 3H	8/14/2018 0:00	159.0022744	667.624853	202
Grama Ridge 8 State 3H	8/15/2018 0:00	208.3485792	651.9770878	246
Grama Ridge 8 State 3H	8/16/2018 0:00	271.3129845	655.4573777	362
Grama Ridge 8 State 3H	8/17/2018 0:00	184.5006806	657.9155578	234
Grama Ridge 8 State 3H	8/18/2018 0:00	18.3678777	490.5024285	23
Grama Ridge 8 State 3H	8/19/2018 0:00	274.5971893	352.6629193	301
Grama Ridge 8 State 3H	8/20/2018 0:00	182.5208792	646.5467331	236
Grama Ridge 8 State 3H	8/21/2018 0:00	128.6754531	616.2898874	164
Grama Ridge 8 State 3H	8/22/2018 0:00	181.4613015	596.3656115	226
Grama Ridge 8 State 3H	8/23/2018 0:00	209.5617007	617.0689526	264
Grama Ridge 8 State 3H	8/24/2018 0:00	166.6753775	604.7971205	219
Grama Ridge 8 State 3H	8/25/2018 0:00	250.6097425	610.1919193	313
Grama Ridge 8 State 3H	8/26/2018 0:00	146.5754136	606.1154338	187
Grama Ridge 8 State 3H	8/27/2018 0:00	186.0653018	579.0995168	227
Grama Ridge 8 State 3H	8/28/2018 0:00	157.5511244	602.3412135	325
Grama Ridge 8 State 3H	8/29/2018 0:00	167.5317295	602.8244344	205
Grama Ridge 8 State 3H	8/30/2018 0:00	233.4540001	612.1332375	277
Grama Ridge 8 State 3H	8/31/2018 0:00	175.7611658	608.6960941	221
Grama Ridge 8 State 3H	9/1/2018 0:00	186.3592264	573.1450562	213
Grama Ridge 8 State 3H	9/2/2018 0:00	148.8608917	646.1897335	153
Grama Ridge 8 State 3H	9/3/2018 0:00	197.1853576	600.0536817	225
Grama Ridge 8 State 3H	9/4/2018 0:00	166.1566246	566.3312623	233
Grama Ridge 8 State 3H	9/5/2018 0:00	44.01610526	485.8875706	39
Grama Ridge 8 State 3H	9/6/2018 0:00	13.66854051	247.9303977	2
Grama Ridge 8 State 3H	9/7/2018 0:00	18.06904901	286.6453354	0
Grama Ridge 8 State 3H	9/8/2018 0:00	13.00283279	273.6279132	0
Grama Ridge 8 State 3H	9/9/2018 0:00	8.635590576	271.6742755	4
Grama Ridge 8 State 3H	9/10/2018 0:00	17.54687175	288.231153	26
Grama Ridge 8 State 3H	9/11/2018 0:00	259.2099248	349.6582816	150
Grama Ridge 8 State 3H	9/12/2018 0:00	173.7887816	778.8885176	162.8489638
Grama Ridge 8 State 3H	9/13/2018 0:00	205.3523103	60.60301218	162
Grama Ridge 8 State 3H	9/14/2018 0:00	197.4260229	27.35294118	196
Grama Ridge 8 State 3H	9/15/2018 0:00	147.4613234	351.0267934	152
Grama Ridge 8 State 3H	9/16/2018 0:00	222.204519	330.5141706	224
Grama Ridge 8 State 3H	9/17/2018 0:00	191.3012407	326.1361735	188
Grama Ridge 8 State 3H	9/18/2018 0:00	193.4835653	330.1754873	186
Grama Ridge 8 State 3H	9/19/2018 0:00	183.186965	312.5776871	172
Grama Ridge 8 State 3H	9/20/2018 0:00	183.6941654	327.2109736	120
Grama Ridge 8 State 3H	9/21/2018 0:00	143.13964	324.0835001	145
Grama Ridge 8 State 3H	9/22/2018 0:00	112.9584	327.9092843	288
Grama Ridge 8 State 3H	9/23/2018 0:00	173.2744303	335.4599245	136
Grama Ridge 8 State 3H	9/24/2018 0:00	250.3167587	501.0580501	213
Grama Ridge 8 State 3H	9/25/2018 0:00	226.1732952	438.5536495	221
Grama Ridge 8 State 3H	9/26/2018 0:00	0	0	0

COMPLETIONNAME	PRODUCTIONDATE	ALLOCATEDOILPRODUCTION	ALLOCATEDGASPRODUCTION	ALLOCATEDWATERPRODUCTION
Grama Ridge 8 State 5H	8/1/2018 0:00	285.2708931	701.7297058	285
Grama Ridge 8 State 5H	8/2/2018 0:00	533.5824389	721.9352323	120
Grama Ridge 8 State 5H	8/3/2018 0:00	500.6714572	548.834224	0
Grama Ridge 8 State 5H	8/4/2018 0:00	164.4357487	703.4431972	982
Grama Ridge 8 State 5H	8/5/2018 0:00	354.5188732	669.7368773	367
Grama Ridge 8 State 5H	8/6/2018 0:00	323.1727015	700.7113334	336
Grama Ridge 8 State 5H	8/7/2018 0:00	361.0229768	698.4793422	378
Grama Ridge 8 State 5H	8/8/2018 0:00	301.5207019	691.1811248	311
Grama Ridge 8 State 5H	8/9/2018 0:00	288.6799153	690.159074	266
Grama Ridge 8 State 5H	8/10/2018 0:00	363.9826371	703.3279085	427
Grama Ridge 8 State 5H	8/11/2018 0:00	338.1700348	682.6305478	314
Grama Ridge 8 State 5H	8/12/2018 0:00	294.8665023	676.9150986	328
Grama Ridge 8 State 5H	8/13/2018 0:00	358.9742167	690.2514811	377
Grama Ridge 8 State 5H	8/14/2018 0:00	253.5985643	666.3769561	250
Grama Ridge 8 State 5H	8/15/2018 0:00	333.7829278	648.919034	311
Grama Ridge 8 State 5H	8/16/2018 0:00	423.809593	648.6937463	451
Grama Ridge 8 State 5H	8/17/2018 0:00	280.6352458	652.9919615	289
Grama Ridge 8 State 5H	8/18/2018 0:00	304.5200776	602.7508984	306
Grama Ridge 8 State 5H	8/19/2018 0:00	340.1151152	836.5679753	347
Grama Ridge 8 State 5H	8/20/2018 0:00	286.2695894	608.5145724	284
Grama Ridge 8 State 5H	8/21/2018 0:00	193.9879937	608.996516	196
Grama Ridge 8 State 5H	8/22/2018 0:00	293.05515	572.2045541	288
Grama Ridge 8 State 5H	8/23/2018 0:00	327.2607381	604.9814119	329
Grama Ridge 8 State 5H	8/24/2018 0:00	263.514703	607.1782115	276
Grama Ridge 8 State 5H	8/25/2018 0:00	393.1133215	606.0125226	387
Grama Ridge 8 State 5H	8/26/2018 0:00	237.8210353	602.5605046	236
Grama Ridge 8 State 5H	8/27/2018 0:00	293.6814493	590.6450476	284
Grama Ridge 8 State 5H	8/28/2018 0:00	246.0221404	605.2909746	401
Grama Ridge 8 State 5H	8/29/2018 0:00	264.8405784	601.647043	201
Grama Ridge 8 State 5H	8/30/2018 0:00	361.0623307	609.1443057	422
Grama Ridge 8 State 5H	8/31/2018 0:00	272.2044721	597.9754192	301
Grama Ridge 8 State 5H	9/1/2018 0:00	289.5735672	568.1418501	303
Grama Ridge 8 State 5H	9/2/2018 0:00	233.1806975	639.9463544	224
Grama Ridge 8 State 5H	9/3/2018 0:00	306.1067931	592.5094864	324
Grama Ridge 8 State 5H	9/4/2018 0:00	251.9148824	576.8496337	332
Grama Ridge 8 State 5H	9/5/2018 0:00	215.6789158	492.7608442	241
Grama Ridge 8 State 5H	9/6/2018 0:00	309.4948101	393.2168561	333
Grama Ridge 8 State 5H	9/7/2018 0:00	223.8554406	441.5651044	235
Grama Ridge 8 State 5H	9/8/2018 0:00	255.4127869	446.21731	287
Grama Ridge 8 State 5H	9/9/2018 0:00	388.6015759	436.8012961	330
Grama Ridge 8 State 5H	9/10/2018 0:00	323.0688739	446.9104454	328
Grama Ridge 8 State 5H	9/11/2018 0:00	305.2168812	471.6958779	287
Grama Ridge 8 State 5H	9/12/2018 0:00	296.0845908	555.8862617	391.8537901
Grama Ridge 8 State 5H	9/13/2018 0:00	256.2014538	692.4045735	277
Grama Ridge 8 State 5H	9/14/2018 0:00	270.7277641	872.0346282	289
Grama Ridge 8 State 5H	9/15/2018 0:00	219.7271376	585.5451467	237
Grama Ridge 8 State 5H	9/16/2018 0:00	335.7539648	584.2976453	356
Grama Ridge 8 State 5H	9/17/2018 0:00	283.5182491	580.8552064	302
Grama Ridge 8 State 5H	9/18/2018 0:00	289.7292363	579.9987632	302
Grama Ridge 8 State 5H	9/19/2018 0:00	273.2789151	544.777529	275
Grama Ridge 8 State 5H	9/20/2018 0:00	293.0850728	582.8468595	315
Grama Ridge 8 State 5H	9/21/2018 0:00	215.5136153	581.5788163	288
Grama Ridge 8 State 5H	9/22/2018 0:00	150.4248	577.5809357	291
Grama Ridge 8 State 5H	9/23/2018 0:00	0	5.001628664	0
Grama Ridge 8 State 5H	9/24/2018 0:00	0	7.621169916	0
Grama Ridge 8 State 5H	9/25/2018 0:00	0	8.668514851	135
Grama Ridge 8 State 5H	9/26/2018 0:00	0	0	0



AUBREY DUNN
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE

Phone (505) 827-5760

Fax (505) 827-5766

www.nmstatelands.org

Jessica Gorman
Marathon Oil Permian, LLC
5555 San Felipe
Houston, TX, 77056

December 18th, 2017

Re: Communitization Agreement Approval
Grama Ridge 8 State Well #2H
Vertical Extent: Bone Spring
Township: 22 South, Range 34 East, NMPM
Section 8: W2E2
Lea County, New Mexico

Dear Ms Gorman,

The Commissioner of Public Lands has this date approved the Grama Ridge 8 State Well #2H Communitization Agreement for the Bone Spring formation effective 8/1/2017. Enclosed are three Certificates of Approval.

The agreement shall remain in effect for One Year, and as long thereafter as communitized substances are produced from the communitized area in paying quantities.

If we may be of further service, please contact Niranjana Khalsa at (505) 827-6628.

Sincerely,

A handwritten signature in black ink, appearing to be "A. Dunn", written over the printed name of the Commissioner.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

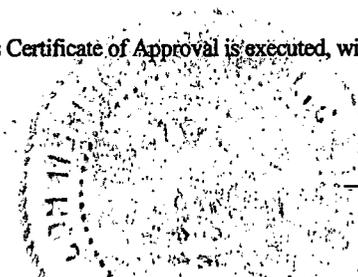
**Marathon Oil Permian, LLC
Grama Ridge 8 State Well #2H
Vertical Extent: Bone Spring
Township: 22 South, Range: 34 East, NMPM
Section 8 : W2E2
Lea County, New Mexico**

There having been presented to the undersigned Commissioner of Public Lands of the State on New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced Agreement dated August 1, 2017, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the State, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 18th Day of December, 2017.



A handwritten signature in black ink, appearing to be "J. J. ...", is written over a horizontal line.

COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

**Marathon Oil Permian, LLC
Grama Ridge 8 State Well #2H
Vertical Extent: Bone Spring
Township: 22 South, Range: 34 East, NMPM
Section 8 : W2E2
Lea County, New Mexico**

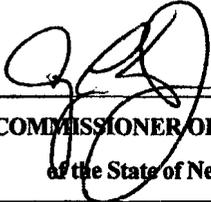
There having been presented to the undersigned Commissioner of Public Lands of the State on New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced Agreement dated August 1, 2017, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the State, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 18th Day of December, 2017.





COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

**Marathon Oil Permian, LLC
Grama Ridge 8 State Well #2H
Vertical Extent: Bone Spring
Township: 22 South, Range: 34 East, NMPM
Section 8 : W2E2
Lea County, New Mexico**

There having been presented to the undersigned Commissioner of Public Lands of the State on New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced Agreement dated August 1, 2017, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the State, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 18th Day of December, 2017.





COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NOW THEREFORE, in consideration of the premises and the mutual advantages to the parties hereto, it is mutually covenanted and agreed by and between the undersigned as follows:

1. The lands covered by this agreement (hereinafter referred to as the "communitized area") are described as follows:

Subdivisions **W/2 of the E/2**

Of Sect(s) **8** Twnshp **22 South Rng 34 East** NMPM **Lea** County, NM

containing **160** acres, more or less. It is the judgment of the parties hereto that the communitization, pooling and consolidation of the aforesaid land into a single unit for the development and production of hydrocarbons from the said formation in and under said land is necessary and advisable in order to properly develop and produce the hydrocarbons in the said formation beneath the said land in accordance with the well spacing rules of the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department, and in order to promote the conservation of the hydrocarbons in and that may be produced from said formation in and under said lands, and would be in the public interest;

AND, for the purposes aforesaid, the parties hereto do hereby communitize for proration or spacing purposes only the leases and/or depths described in Exhibit "A" hereto insofar as they cover hydrocarbons within and that may be produced from the said formation (hereinafter referred to as "communitized substances") beneath the above-described land, into a single communitization, for the development, production, operation and conservation of the hydrocarbons in said formation beneath said lands.

Attached hereto and made a part of this agreement for all purposes, is Exhibit A showing the acreage, depths communitized and ownership (Lessees of Record) of all leases within the communitized area.

2. The communitized area shall be developed and operated as an entirety with the understanding and agreement between the parties hereto that all communitized substances produced therefrom shall be allocated among the leases described in Exhibit "A" hereto in the proportion that the number of surface acres covered by each of such leases and included within the communitized area bears to the total number of acres contained in the communitized area.
3. Subject to Paragraph 4, the royalties payable on communitized substances allocated to the individual leases and the rentals provided for in said leases shall be determined and paid in the manner and on the basis prescribed in each of said leases. Except as provided for under the terms and provisions of the leases described in Exhibit "A" hereto or as herein provided to the contrary, the payment of rentals under the terms of said leases shall not be affected by this agreement; and except as herein modified and changed or heretofore amended, the oil and gas leases subject to this agreement shall remain in full force and effect as originally issued and amended.

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4. Marathon Oil Permian LLC shall be the Operator of the said communitized area and all matters of operation shall be determined and performed by Marathon Oil Permian LLC

5. The State of New Mexico hereafter is entitled to the right to take in kind its share for the communitized substances allocated to such tract, and Operator shall make deliveries of such royalty share taken in kind in conformity with applicable contracts, laws, and regulations.

6. There shall be no obligation upon the parties hereto to offset any well or wells situated on the tracts of land comprising the communitized area, nor shall the Operator be required to measure separately the communitized substances by reason of the diverse ownership of the separate tracts of land comprising the said communitized area; provided, however, that the parties hereto shall not be released from their obligation to protect the communitized area from drainage of communitized substances by wells which may be drilled within offset distance (as that term is defined) of the communitized area.

7. The commencement, completion, and continued operation or production of a well or wells of communitized substances on the communitized area shall be considered as the commencement, completion, continued operation or production as to each of the leases described in Exhibit "A" hereto.

8. The production of communitized substances and disposal thereof shall be in conformity with the allocations, allotments, and quotas made or fixed by any duly authorized person or regulatory body under applicable Federal or State laws. This agreement shall be subject to all applicable Federal and State laws, executive orders, rules and regulations affecting the performance of the provisions hereof, and no party hereto shall suffer a forfeiture or be liable in damages for failure to comply with any of the provisions of this agreement if compliance is prevented by or if such failure results from compliance with any such laws, orders, rules and regulations.

9. This agreement shall be effective as of the date hereinabove written upon execution by the necessary parties, notwithstanding the date of execution, and upon approval by the Commissioner of Public Lands, shall remain in full force and effect for a period of one year from the date hereof and as long thereafter as communitized substances are produced from the communitized area in paying quantities; provided, that this agreement shall not expire if there is a well capable of producing gas in paying quantities located upon some part of the communitized area, if such a well is shut-in due to the inability of the Operator to obtain a pipeline connection or to market the gas therefrom, and if either: (a) a shut-in royalty has been timely and properly paid pursuant to the provisions of one of the State of New Mexico oil and gas leases covering lands subject to this agreement so as to prevent the expiration of such lease; or (b) each of the State of New Mexico oil and gas leases covering lands subject to this agreement is in its primary term (if a five-year lease), or in its primary or secondary term (if a ten-year lease), or is held by production from another well. Provided further, however, that prior to production in paying quantities from the communitized area, and upon fulfillment of all requirements of the Commissioner of Public Lands with respect to any dry hole or abandoned well drilled upon the communitized area, this agreement may be

2017 PERM - 7 M 10 31

terminated at any time by mutual agreement of the parties hereto. This agreement shall not terminate upon cessation of production of communitized substances if, within sixty (60) days thereafter, reworking or drilling operations on the communitized area are commenced and are thereafter conducted with reasonable diligence. As to State Trust Lands, written notice of intention to commence such operations shall be filed with the Commissioner of Public Lands within thirty (30) days after the cessation of such production, and a report of the status of such operations shall be made by the Operator to the Commissioner every thirty (30) days, and the cessation of such operations for more than twenty (20) consecutive days shall be considered as an abandonment of such operations as to any lease from the State of New Mexico included in this agreement.

10. Operator will furnish the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department, and the Commissioner of Public Lands of the State of New Mexico, with any and all reports, statements, notices and well logs and records which may be required under the laws and regulations of the State of New Mexico.

11. It is agreed between the parties hereto that the Commissioner of Public Lands, or his duly authorized representatives, shall have the right of supervision over all operations under the communitized area to the same extent and degree as provided in the oil and gas leases described in Exhibit "A" hereto and in the applicable oil and gas regulations of the State of New Mexico.

12. If any order of the Oil Conservation Division of the New Mexico Energy Minerals and Natural Resources Department, upon which this agreement is predicated or based is in anyway changed or modified, then in such event said agreement is likewise modified to conform thereto.

13. This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instruments, in writing, specifically referring hereto, and shall be binding upon all parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document.

14. This agreement shall be binding upon the parties hereto and shall extend to and be binding upon their respective heirs, executors, administrators, successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

OPERATOR: Lessee of V0-5784-5: Marathon Oil Permian LLC

BY: Matthew D. Brown as Attorney-In-Fact

Matthew D. Brown Name and Title of Authorized Agent
[Signature] Signature of Authorized Agent MRS

Acknowledgment in an Individual Capacity

State of _____)
) SS)
County of _____)

This instrument was acknowledged before me on _____ Date

By _____
Name(s) of Person(s)

(Seal)

Signature of Notarial Officer

My commission expires: _____

Acknowledgment in an Representative Capacity

State of **Texas**)
) SS)
County of **Harris**)

This instrument was acknowledged before me on **November 15, 2017** Date

By **Matthew D. Brown as Attorney-In-Fact of Marathon Oil Permian LLC** .

Name(s) of Person(s) IDA 13008780-4



[Signature]
Signature of Notarial Officer

My commission expires: 1/23/2019

LEASE #: **VB-2131**

LESSEE OF RECORD: **Cimarex Energy Co.**

BY: **Roger Alexander as Attorney-in-Fact**

Name & Title of Authorized Agent

R. Alexander
Signature of Authorized Agent

CTE R.M.

Acknowledgment in an Individual Capacity

State of _____)
) SS)
County of _____)

This instrument was acknowledged before me on _____ Date

By _____
Name(s) of Person(s)

(Seal)

Signature of Notarial Officer

My commission expires: _____

Acknowledgment in an Representative Capacity

State of **Texas**)
) SS)
County of **Midland**)

This instrument was acknowledged before me on **November** Date **27, 2017**

By **Roger Alexander, Attorney-in-Fact.**
Name(s) of Person(s)

(Seal)

Kaimi Brownlee
Signature of Notarial Officer

My commission expires: **3/26/2019**

1E 101111 2-300 1102

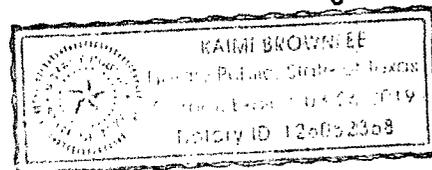


EXHIBIT A

Attached to and made part of that Communitization Agreement dated August 1, 2017, by and between Marathon Oil Permian LLC Company and The New Mexico State Land Office,

The Subdivisions:

**W/2 of the E/2 of Section 8, Township 22 South, Range 34 East, NMPM, Lea County, NM
Limited in depth to the WolfCamp Formation.**

OPERATOR of Communitized Area: Marathon Oil Permian LLC.

DESCRIPTION OF LEASES COMMITTED:

TRACT NO.1

Lessor: The State of New Mexico Land Office

Lessee of Record: Marathon Oil Permian LLC

Serial No. of Lease: V0-5784-5 Date of Lease: 4/01/2000

Description of Lands Committed:

Subdivisions:

W/2 of the NE/4 of Section 8, Township 22 South, Range 34 East, NMPM, Lea County, NM

No. of Acres: 80

TRACT NO. 2

Lessor: The State of New Mexico Land Office

Lessee of Record: Cimarex Energy Co.,

Serial No. of Lease: VB-2131 Date of Lease: 2/01/2012

Description of Lands Committed:

Subdivisions:

W/2 of the SE/4 of Section 8, Township 22 South, Range 34 East, NMPM, Lea County, NM

No. of Acres: 80

2017 SEP -7 11:10:31

RECAPITULATION

Tract Number	Number of Acres Committed	Percentage of Interest in Communitized Area
No. 1	80	50%
No. 2	80	50%
TOTAL	160	100%

2017 DEC -7 AM 10:31



AUBREY DUNN
COMMISSIONER

State of New Mexico
Commissioner of Public Lands

310 OLD SANTA FE TRAIL
P.O. BOX 1148
SANTA FE, NEW MEXICO 87504-1148

COMMISSIONER'S OFFICE
Phone (505) 827-5760
Fax (505) 827-5766
www.nmstatelands.org

Jessica Gorman
Marathon Oil Permian, LLC
5555 San Felipe
Houston, TX, 77056

December 18th, 2017

Re: Communitization Agreement Approval
Grama Ridge 8 State Well #3H
Vertical Extent: Bone Spring
Township: 22 South, Range 34 East, NMPM
Section 8: E2E2
Lea County, New Mexico

Dear Ms Gorman,

The Commissioner of Public Lands has this date approved the Grama Ridge 8 State Well #3H Communitization Agreement for the Bone Spring formation effective 8/1/2017. Enclosed are three Certificates of Approval.

The agreement shall remain in effect for One Year, and as long thereafter as communitized substances are produced from the communitized area in paying quantities.

If we may be of further service, please contact Niranjana Khalsa at (505) 827-6628.

Sincerely,

A handwritten signature in black ink, appearing to be "Aubrey Dunn", is written over the typed name.

AUBREY DUNN
COMMISSIONER OF PUBLIC LANDS

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

**Marathon Oil Permian, LLC
Grama Ridge 8 State Well #3H
Vertical Extent: Bone Spring
Township: 22 South, Range: 34 East, NMPM
Section 8 : E2E2
Lea County, New Mexico**

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced Agreement dated August 1, 2017, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the State, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 18th Day of December, 2017.





COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

**Marathon Oil Permian, LLC
Grama Ridge 8 State Well #3H
Vertical Extent: Bone Spring
Township: 22 South, Range: 34 East, NMPM
Section 8 : E2E2
Lea County, New Mexico**

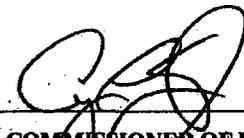
There having been presented to the undersigned Commissioner of Public Lands of the State on New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced Agreement dated August 1, 2017, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the State, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 18th Day of December, 2017.





COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NEW MEXICO STATE LAND OFFICE

CERTIFICATE OF APPROVAL

COMMISSIONER OF PUBLIC LANDS, STATE OF NEW MEXICO

**Marathon Oil Permian, LLC
Grama Ridge 8 State Well #3H
Vertical Extent: Bone Spring
Township: 22 South, Range: 34 East, NMPM
Section 8 : E2E2
Lea County, New Mexico**

There having been presented to the undersigned Commissioner of Public Lands of the State of New Mexico for examination, a Communitization Agreement for the development and operation of acreage which is described within the referenced Agreement dated August 1, 2017, which has been executed, or is to be executed by parties owning and holding oil and gas leases and royalty interests in and under the property described, and upon examination of said Agreement, the Commissioner finds:

- (a) That such agreement will tend to promote the conservation of oil and gas and the better utilization of reservoir energy in said area.
- (b) That under the proposed agreement, the State of New Mexico will receive its fair share of the recoverable oil or gas in place under its lands in the area.
- (c) That each beneficiary Institution of the State of New Mexico will receive its fair and equitable share of the recoverable oil and gas under its lands within the area.
- (d) That such agreement is in other respects for the best interests of the State, with respect to state lands.

NOW, THEREFORE, by virtue of the authority conferred upon me under Sections 19-10-45, 19-10-46, 19-10-47, New Mexico Statutes Annotated, 1978 Compilation, I, the undersigned Commissioner of Public Lands of the State of New Mexico, for the purpose of more properly conserving the oil and gas resources of the State, do hereby consent to and approve the said Agreement, and any leases embracing lands of the State of New Mexico within the area shall be and the same are hereby amended to conform with the terms thereof, and shall remain in full force and effect according to the terms and conditions of said Agreement. This approval is subject to all of the provisions of the aforesaid statutes.

IN WITNESS WHEREOF, this Certificate of Approval is executed, with seal affixed, this 18th Day of December, 2017.



A handwritten signature in black ink, appearing to be "J. J. [unclear]", is written over a horizontal line.

COMMISSIONER OF PUBLIC LANDS
of the State of New Mexico

NM State Land Office
Oil, Gas, & Minerals Division

STATE/STATE OR
STATE/FEE
Revised March 2017

COMMUNITIZATION AGREEMENT

ONLINE Version

KNOW ALL MEN BY THESE PRESENTS: Well Name: **Gramma Ridge 8 State #3H**

STATE OF NEW MEXICO)
SS)

API #: 30 - 25 - 43608

COUNTY OF **Lea**)

THAT THIS AGREEMENT [which is NOT to be used for carbon dioxide or helium] is entered into as of **August 1**, 20 **17**, by and between the parties subscribing, ratifying or consenting hereto, such parties hereinafter being referred to as "Parties hereto";

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by the Legislature, as set forth in Sec. 19-10-53, New Mexico Statutes, Annotated, 1978, in the interest of conservation of oil & gas and the prevention of waste to consent to and approve the development or operation of State Trust Lands under agreements made by lessees of oil & gas leases thereon, jointly or severally with other oil & gas lessees of State Trust Lands, or oil and gas lessees or mineral owners of privately owned or fee lands, for the purpose of pooling or communitizing such lands to form a proration unit or portion thereof, or well-spacing unit, pursuant to any order, rule or regulation of the New Mexico Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department where such agreement provides for the allocation of the production of oil or gas from such pools or communitized areas on an acreage or other basis found by the Commissioner of Public Lands to be fair and equitable.

WHEREAS, the parties hereto, own working, royalty, or other leasehold interests or operating rights under the oil and gas leases and lands subject to this agreement, which leases are more particularly described in the schedule attached hereto, marked Exhibit "A" and made a part hereof, for all purposes; and

WHEREAS, said leases, insofar as they cover the **Bone Spring** formation or pool as defined by the NMOCD, as further described on Exhibit "A" (hereinafter referred to as "said formation") in and under the land hereinafter described cannot be independently developed and operated in conformity with the well spacing program established for such formation in and under said lands; and

WHEREAS, the parties hereto desire to communitize and pool their respective interests in said leases subject to this agreement for the purpose of developing, operating and producing hydrocarbons in the said formation in and under the land hereinafter described subject to the terms hereof.

NOW THEREFORE, in consideration of the premises and the mutual advantages to the parties hereto, it is mutually covenanted and agreed by and between the undersigned as follows:

1. The lands covered by this agreement (hereinafter referred to as the "communitized area") are described as follows:

Subdivisions **E/2 of E/2**
Of Sect(s) **8** **Twtnshp 22 South Rng 34 East** NMPM **Lea** County, NM

containing **160** acres, more or less. It is the judgment of the parties hereto that the communitization, pooling and consolidation of the aforesaid land into a single unit for the development and production of hydrocarbons from the said formation in and under said land is necessary and advisable in order to properly develop and produce the hydrocarbons in the said formation beneath the said land in accordance with the well spacing rules of the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department, and in order to promote the conservation of the hydrocarbons in and that may be produced from said formation in and under said lands, and would be in the public interest;

AND, for the purposes aforesaid, the parties hereto do hereby communitize for proration or spacing purposes only the leases and/or depths described in Exhibit "A" hereto insofar as they cover hydrocarbons within and that may be produced from the said formation (hereinafter referred to as "communitized substances") beneath the above-described land, into a single communitization, for the development, production, operation and conservation of the hydrocarbons in said formation beneath said lands.

Attached hereto and made a part of this agreement for all purposes, is Exhibit A showing the acreage, depths communitized and ownership (Lessees of Record) of all leases within the communitized area.

2. The communitized area shall be developed and operated as an entirety with the understanding and agreement between the parties hereto that all communitized substances produced therefrom shall be allocated among the leases described in Exhibit "A" hereto in the proportion that the number of surface acres covered by each of such leases and included within the communitized area bears to the total number of acres contained in the communitized area.
3. Subject to Paragraph 4, the royalties payable on communitized substances allocated to the individual leases and the rentals provided for in said leases shall be determined and paid in the manner and on the basis prescribed in each of said leases. Except as provided for under the terms and provisions of the leases described in Exhibit "A" hereto or as herein provided to the contrary, the payment of rentals under the terms of said leases shall not be affected by this agreement; and except as herein modified and changed or heretofore amended, the oil and gas leases subject to this agreement shall remain in full force and effect as originally issued and amended.

4. Marathon Oil Permian LLC shall be the Operator of the said communitized area and all matters of operation shall be determined and performed by Marathon Oil Permian LLC

5. The State of New Mexico hereafter is entitled to the right to take in kind its share for the communitized substances allocated to such tract, and Operator shall make deliveries of such royalty share taken in kind in conformity with applicable contracts, laws, and regulations.

6. There shall be no obligation upon the parties hereto to offset any well or wells situated on the tracts of land comprising the communitized area, nor shall the Operator be required to measure separately the communitized substances by reason of the diverse ownership of the separate tracts of land comprising the said communitized area; provided, however, that the parties hereto shall not be released from their obligation to protect the communitized area from drainage of communitized substances by wells which may be drilled within offset distance (as that term is defined) of the communitized area.

7. The commencement, completion, and continued operation or production of a well or wells of communitized substances on the communitized area shall be considered as the commencement, completion, continued operation or production as to each of the leases described in Exhibit "A" hereto.

8. The production of communitized substances and disposal thereof shall be in conformity with the allocations, allotments, and quotas made or fixed by any duly authorized person or regulatory body under applicable Federal or State laws. This agreement shall be subject to all applicable Federal and State laws, executive orders, rules and regulations affecting the performance of the provisions hereof, and no party hereto shall suffer a forfeiture or be liable in damages for failure to comply with any of the provisions of this agreement if compliance is prevented by or if such failure results from compliance with any such laws, orders, rules and regulations.

9. This agreement shall be effective as of the date hereinabove written upon execution by the necessary parties, notwithstanding the date of execution, and upon approval by the Commissioner of Public Lands, shall remain in full force and effect for a period of one year from the date hereof and as long thereafter as communitized substances are produced from the communitized area in paying quantities; provided, that this agreement shall not expire if there is a well capable of producing gas in paying quantities located upon some part of the communitized area, if such a well is shut-in due to the inability of the Operator to obtain a pipeline connection or to market the gas therefrom, and if either: (a) a shut-in royalty has been timely and properly paid pursuant to the provisions of one of the State of New Mexico oil and gas leases covering lands subject to this agreement so as to prevent the expiration of such lease; or (b) each of the State of New Mexico oil and gas leases covering lands subject to this agreement is in its primary term (if a five-year lease), or in its primary or secondary term (if a ten-year lease), or is held by production from another well. Provided further, however, that prior to production in paying quantities from the communitized area, and upon fulfillment of all requirements of the Commissioner of Public Lands with respect to any dry hole or abandoned well drilled upon the communitized area, this agreement may be

terminated at any time by mutual agreement of the parties hereto. This agreement shall not terminate upon cessation of production of communitized substances if, within sixty (60) days thereafter, reworking or drilling operations on the communitized area are commenced and are thereafter conducted with reasonable diligence. As to State Trust Lands, written notice of intention to commence such operations shall be filed with the Commissioner of Public Lands within thirty (30) days after the cessation of such production, and a report of the status of such operations shall be made by the Operator to the Commissioner every thirty (30) days, and the cessation of such operations for more than twenty (20) consecutive days shall be considered as an abandonment of such operations as to any lease from the State of New Mexico included in this agreement.

10. Operator will furnish the Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department, and the Commissioner of Public Lands of the State of New Mexico, with any and all reports, statements, notices and well logs and records which may be required under the laws and regulations of the State of New Mexico.

11. It is agreed between the parties hereto that the Commissioner of Public Lands, or his duly authorized representatives, shall have the right of supervision over all operations under the communitized area to the same extent and degree as provided in the oil and gas leases described in Exhibit "A" hereto and in the applicable oil and gas regulations of the State of New Mexico.

12. If any order of the Oil Conservation Division of the New Mexico Energy Minerals and Natural Resources Department, upon which this agreement is predicated or based is in anyway changed or modified, then in such event said agreement is likewise modified to conform thereto.

13. This agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties, or may be ratified or consented to by separate instruments, in writing, specifically referring hereto, and shall be binding upon all parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document.

14. This agreement shall be binding upon the parties hereto and shall extend to and be binding upon their respective heirs, executors, administrators, successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the day and year first above written.

EXHIBIT A

**Attached to and made part of that Communitization Agreement dated August 1, 2017, by and between
Marathon Oil Permian LLC Company and The New Mexico State Land Office,**

The Subdivisions:

E/2 of the E/2 of Section 8, Township 22 South, Range 34 East, NMPM, Lea County, NM

Limited in depth to the WolfCamp Formation.

OPERATOR of Communitized Area: Marathon Oil Permian LLC.

DESCRIPTION OF LEASES COMMITTED:

TRACT NO.1

Lessor: The State of New Mexico Land Office

Lessee of Record: Marathon Oil Permian LLC

Serial No. of Lease: V0-5784-5 Date of Lease: 4/01/2000

Description of Lands Committed:

Subdivisions:

E/2 of the NE/4 of Section 8, Township 22 South, Range 34 East, NMPM, Lea County, NM

No. of Acres: 80

TRACT NO. 2

Lessor: The State of New Mexico Land Office

Lessee of Record: Cimarex Energy Co.,

Serial No. of Lease: VB-2131 Date of Lease: 2/01/2012

Description of Lands Committed:

Subdivisions:

E/2 of the SE/4 of Section 8, Township 22 South, Range 34 East, NMPM, Lea County, NM

No. of Acres: 80

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RECAPITULATION		
Tract Number	Number of Acres Committed	Percentage of Interest in Communitized Area
No. 1	80	50%
No. 2	80	50%
TOTAL	160	100%

Production Summary Report			
API: 30-025-43607			
GRAMA RIDGE 8 STATE COM #002H			
Year	Pool	Oil(BBLS)	Gas(MCF)
5/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	8571	16774
6/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	8345	16728
7/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	7734	13828
8/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	7230	13583
Cum		31880	60913

Production Summary Report			
API: 30-025-43608			
GRAMA RIDGE 8 STATE COM #003H			
Year	Pool	Oil(BBLS)	Gas(MCF)
5/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	8530	17702
6/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	7824	19181
7/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	7253	18889
8/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	6054	16912
Cum		29661	72684

Production Summary Report			
API: 30-025-43610			
GRAMA RIDGE 8 STATE COM #005H			
Year	Pool	Oil(BBLS)	Gas(MCF)
3/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	16918	18835
4/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	15955	22464
5/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	12257	18124
6/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	10851	16304
7/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	11057	17707
8/1/2018	[28432] GRAMA RIDGE;BONE SPRINGS, WEST	9706	17142
Cum		130518	175636



KEY/NOTES

W – Water Storage Tank
 TK – Oil Storage Tank
 S – Separator
 HT – Heater Treater
 GB – Gun Barrel Tank
 COMP – Compressor

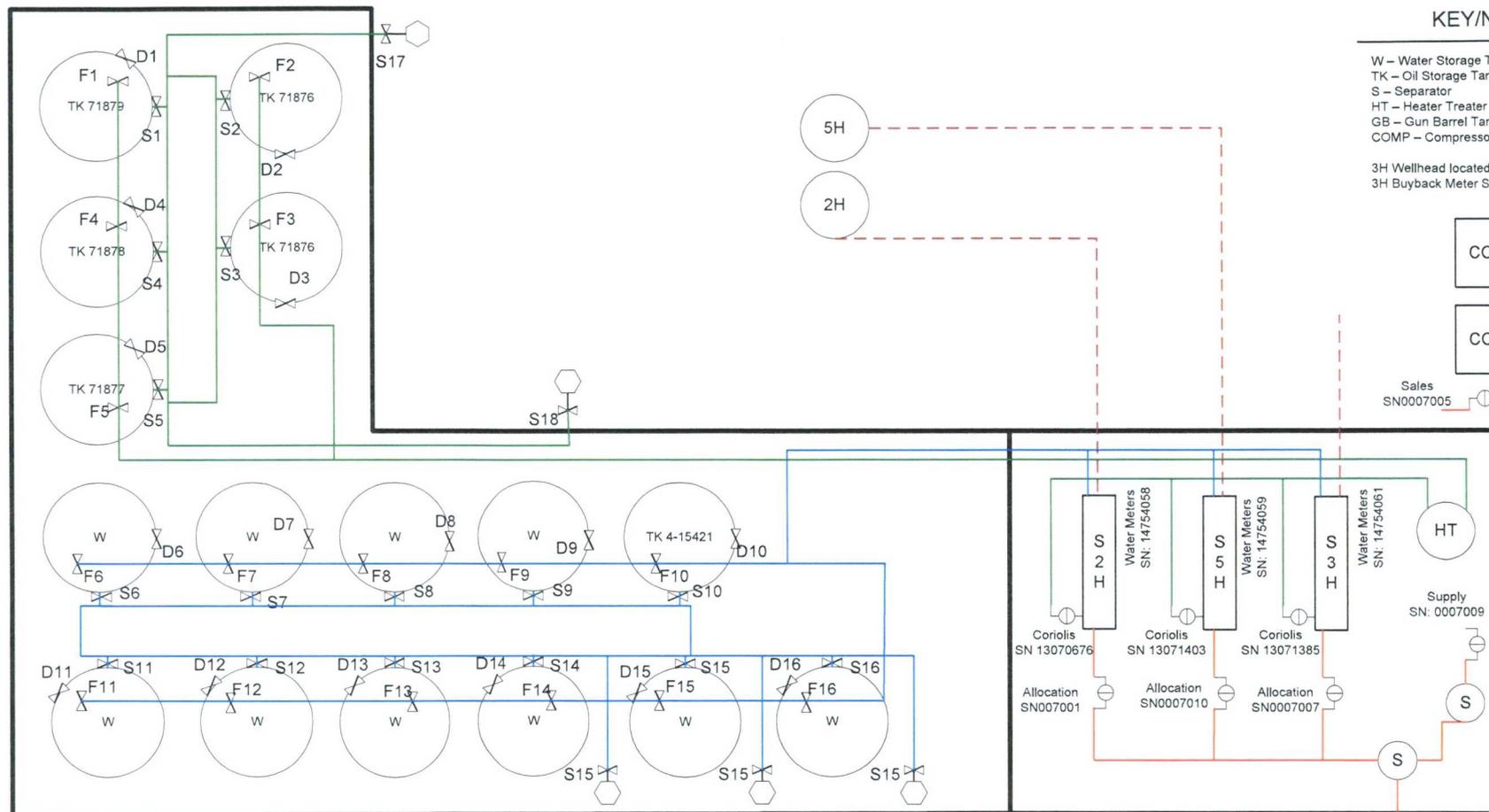
3H Wellhead located at separate pad.
 3H Buyback Meter SN:T174600926



Buy Back
 SNT180609414

Sales
 SN0007005

Master Sales
 SNT179600927



FLARE

Water Meters
 SN:14810427



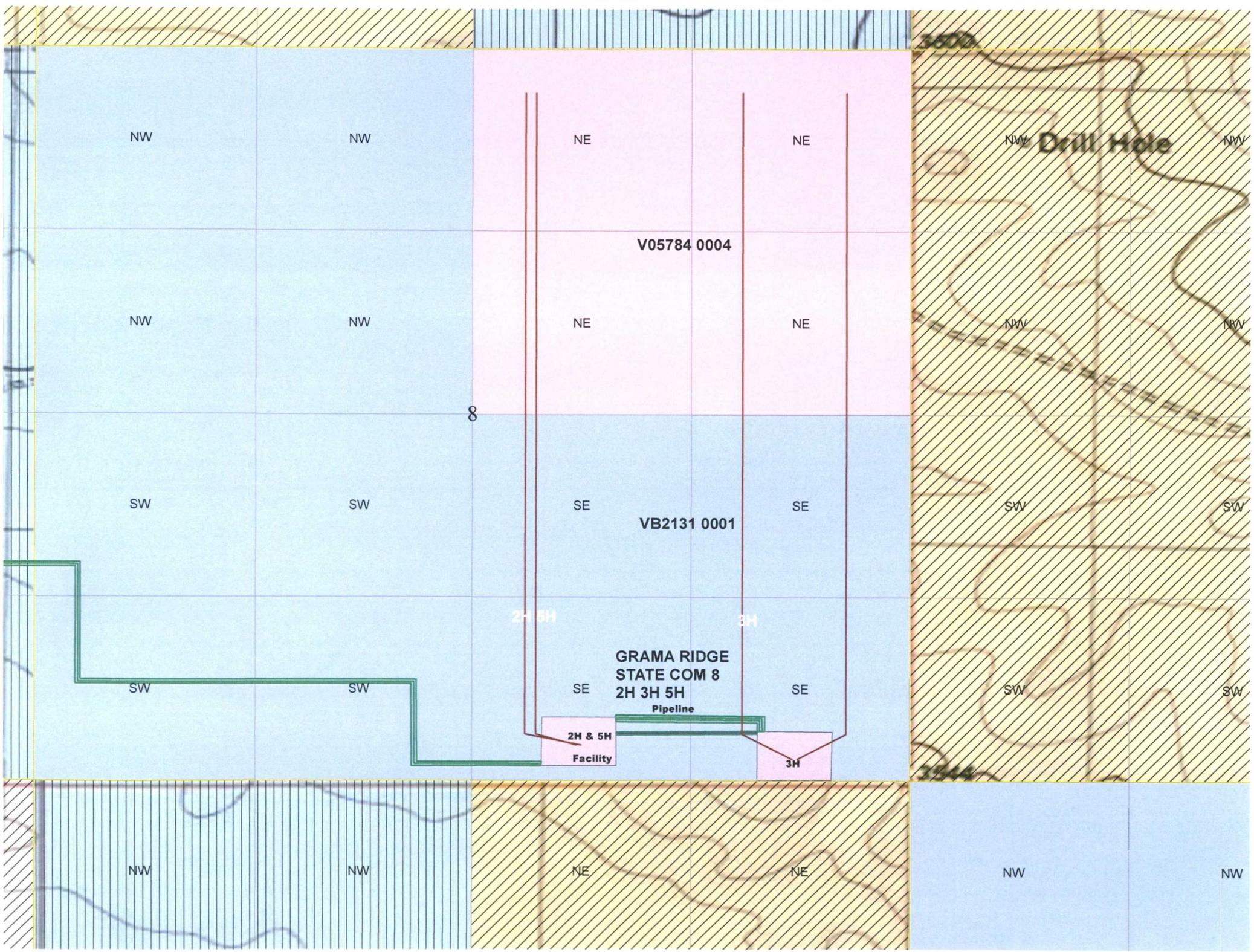
FIGURE TITLE
GRAMA RIDGE 8 STATE 2H, 3H, 5H CTB

API **30-025-43607** LEASE CA #
30-025-43608
30-025-43610

OPERATOR
MARATHON OIL PERMIAN, LLC
5555 SAN FELIPE ST, HOUSTON, TX 77056

LOCATION
LEA COUNTY, NM **O-8-T22S-R34E** **LAT 32.399529**
250 FSL & 1965 FEL **LONG -103.489403**

DATE	SEP 2018
SCALE	NOT TO SCALE
DRAWN BY	AC
APPROVED BY	JVC



NW

NW

NE

NE

NW

Drill Hole

NW

V05784 0004

NW

NW

NE

NE

NW

NW

8

SW

SW

SE

SE

SW

SW

VB2131 0001

2H 5H

3H

GRAMA RIDGE
STATE COM 8
2H 3H 5H
Pipeline

SW

SW

SE

SE

SW

SW

2H & 5H
Facility

3H

NW

NW

NE

NE

NW

NW