

**Before the Oil Conservation Division
Examiner Hearing November 14, 2019**

Case Nos. 20867 and 20868
Valkyrie 12 SB Federal Com 14H
Valkyrie 12 SB Federal Com 15H



7. No opposition is expected because the interest owners being pooled have been contacted regarding the proposed wells, but have failed or refused to voluntarily commit their interests in the wells.

8. In Case No. 20867, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 14H well, to be horizontally drilled. The Application is attached hereto as **Exhibit 1**.

9. In Case No. 20868, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 15H well, to be horizontally drilled. The Application is attached hereto as **Exhibit 2**.

10. Attached as **Exhibit 3** are proposed C-102s for the wells.

11. The C-102s identify the proposed surface hole locations, first take point, and bottom hole locations. The C-102s also identify the pool and pool code.

12. The wells will develop the Culebra Bluff; Bone Spring, South pool, pool code, 15011.

13. The Culebra Bluff pool is an oil pool with 40-acre building blocks.

14. The producing interval for the wells will be orthodox and will comply with the Division's set back requirements.

15. Two lease tract maps outlining the units being pooled are included behind **Tab 4**. The parties being pooled and the percent of their interests is also included as part of **Exhibit 4**.

16. There are no depth severances within the proposed spacing unit.

17. I have conducted a diligent search of the public records in the county where the wells are located, and conducted phone directory and computer searches to locate contact information for parties entitled to notification, and mailed all parties well proposals, including an Authorization for Expenditure.

18. Marathon has made a good faith effort to obtain voluntary joinder of the working interest owners in the proposed wells.

19. Marathon seeks to pool overriding royalty interest owners, and they were provided notice of this hearing.

20. **Exhibit 5** is the well proposal letter that I sent to all working-interest owners. The proposal letter identifies the proposed surface hole and bottom hole locations and approximate TVD.

21. **Exhibit 6** contains the Authorization for Expenditure for the proposed wells. The estimated cost of the wells set forth therein is fair and reasonable, and is comparable to the costs of other wells of similar depths and length drilled in this area of New Mexico.

22. Marathon requests overhead and administrative rates of \$7000.00/month for drilling a well and \$700.00/month for a producing well. These rates are fair, and comparable to the rates charged by other operators for wells of this type in this area of Southeastern, New Mexico. Marathon requests that these rates be adjusted periodically as provided in the COPAS Accounting Procedure.

23. Marathon requests the maximum cost plus 200% risk charge be assessed against non-consenting working interest owners.

24. Marathon requests that it be designated operator of the wells.

25. Marathon requests that it be allowed a period of one (1) year between when the wells are drilled and when the first well is completed under the order.

26. The parties Marathon is seeking to pool were notified of this hearing.

27. **Exhibit 7** is an affidavit of notice prepared by counsel for Marathon that shows the parties who were notified of this hearing, the status of whether they received notice, and an affidavit of publication from the Carlsbad Argus newspaper, showing that notice of this hearing was published on October 31, 2019.

28. The attachments to this affidavit were prepared by me, or compiled from company business records, or were prepared at my direction.

29. I attest that the information provided herein is correct and complete to the best of my knowledge and belief.

30. The granting of this application is in the interests of conservation and the prevention of waste.

[Signature page follows]

Chase Rice

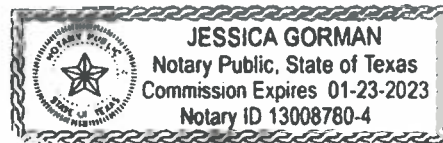
Chase Rice

SUBSCRIBED AND SWORN to before me this 12th day of November, 2019 by Chase Rice on behalf of Marathon Oil Permian LLC.

Jessica Gorman

Notary Public

My commission expires: 1/23/2023



**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF MARATHON
OIL PERMIAN LLC FOR COMPULSORY
POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NO. 20867

APPLICATION

Marathon Oil Permian LLC ("Marathon"), OGRID Number 372098, through its undersigned attorneys, hereby makes an application to the Oil Conservation Division pursuant to the provisions of NMSA (1978), Section 70-2-17, for an order pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. In support of this application, Marathon states as follows:

1. Marathon is an interest owner in the subject lands and has a right to drill a well thereon.
2. Marathon seeks to dedicate the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico to form a 320-acre, more or less, spacing unit.
3. Marathon plans to drill the **Valkyrie 12 SB Federal Com 14H** well to a depth sufficient to test the Bone Spring formation. This well will be horizontally drilled and will be drilled at orthodox locations under the Division's rules.



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4. Marathon sought, but has been unable to obtain, a voluntary agreement from all interest owners in the Bone Spring formation underlying the proposed spacing unit to participate in the drilling of the well or to otherwise commit their interests to the well.

5. The pooling of all interests in the Bone Spring formation underlying the proposed unit will prevent the drilling of unnecessary wells, prevent waste and protect correlative rights.

6. Marathon further requests that it be allowed one (1) year between the time the well is drilled and completion of the well under the order issued by the Division.

WHEREFORE, Marathon requests this application be set for hearing before an Examiner of the Oil Conservation Division on November 14, 2019, and after notice and hearing as required by law, the Division enter its order:

A. Pooling all mineral interests in the Bone Spring formation underlying a horizontal spacing unit within the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico;

B. Designating Marathon as operator of this unit and the well to be drilled thereon;

C. Authorizing Marathon to recover its costs of drilling, equipping and completing the well;

D. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;

E. Setting a 200% charge for the risk involved in drilling and completing the well in the event a working interest owner elects not to participate in the well.

F. Allowing a time period of one (1) year between when the well is drilled and when it is completed under the order.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS
& SISK, P.A.

By: Deana M. Bennett

Deana M. Bennett

Nicole T. Russell

Post Office Box 2168

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800

Attorneys for Applicant

CASE NO. _____: Application of Marathon Oil Permian LLC for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Valkyrie 12 SB Federal Com 14H** well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed. Said area is located approximately 4 miles Northeast of Loving, New Mexico.

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF MARATHON
OIL PERMIAN LLC FOR COMPULSORY
POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NO. 20868

APPLICATION

Marathon Oil Permian LLC ("Marathon"), OGRID Number 372098, through its undersigned attorneys, hereby makes an application to the Oil Conservation Division pursuant to the provisions of NMSA (1978), Section 70-2-17, for an order pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. In support of this application, Marathon states as follows:

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4. Marathon sought, but has been unable to obtain, a voluntary agreement from all interest owners in the Bone Spring formation underlying the proposed spacing unit to participate in the drilling of the well or to otherwise commit their interests to the well.

5. The pooling of all interests in the Bone Spring formation underlying the proposed unit will prevent the drilling of unnecessary wells, prevent waste and protect correlative rights.

6. Marathon further requests that it be allowed one (1) year between the time the well is drilled and completion of the well under the order issued by the Division.

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B. Designating Marathon as operator of this unit and the well to be drilled thereon;

C. Authorizing Marathon to recover its costs of drilling, equipping and completing the well;

D. Approving actual operating charges and costs charged for supervision, together with a provision adjusting the rates pursuant to the COPAS accounting procedure;

E. Setting a 200% charge for the risk involved in drilling and completing the well in the event a working interest owner elects not to participate in the well.

F. Allowing a time period of one (1) year between when the well is drilled and when it is completed under the order.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS
& SISK, P.A.

By: Deana M. Bennett

Deana M. Bennett

Nicole T. Russell

Post Office Box 2168

500 Fourth Street NW, Suite 1000

Albuquerque, New Mexico 87103-2168

Telephone: 505.848.1800

Attorneys for Applicant

CASE NO. _____: Application of Marathon Oil Permian LLC for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Valkyrie 12 SB Federal Com 15H** well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed. Said area is located approximately 4 miles Northeast of Loving, New Mexico.

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 | ² Pool Code 15011 | ³ Pool Name CULEBRA BLUFF, SOUTH; BONE SPRING |
| ⁴ Property Code | ⁵ Property Name VALKYRIE 12 SB FEDERAL COM | ⁶ Well Number 14H |
| ⁷ OGRID No. 372098 | ⁸ Operator Name MARATHON OIL PERMIAN LLC | ⁹ Elevation 2993' |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| L | 12 | 23S | 28E | | 1712 | SOUTH | 537 | WEST | EDDY |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| I | 7 | 23S | 29E | | 1980 | SOUTH | 100 | EAST | EDDY |

| | | | |
|---|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 317.28 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ 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.

Defining Well

SURFACE HOLE LOCATION
1712' FSL 537' FWL, SECTION 12
NAD 83, SPCS NM EAST
X: 629569.00' / Y: 479380.00'
LAT: 32.31760025N / LON: 104.04789852W
NAD 27, SPCS NM EAST
X: 588386.00' / Y: 479321.00'
LAT: 32.31740189N / LON: 104.04689707W

KICK OFF POINT / FIRST TAKE POINT
1980' FSL 100' FWL, SECTION 12
NAD 83, SPCS NM EAST
X: 629134.00' / Y: 479647.00'
LAT: 32.31829834N / LON: 104.04900360W
NAD 27, SPCS NM EAST
X: 587951.00' / Y: 479588.00'
LAT: 32.31819916N / LON: 104.04900360W

LAST TAKE POINT/BOTTOM HOLE LOCATION
1980' FSL 100' FWL, SECTION 7
NAD 83, SPCS NM EAST
X: 639422.00' / Y: 479507.00'
LAT: 32.31778861N / LON: 104.01599884W
NAD 27, SPCS NM EAST
X: 598239.00' / Y: 479447.00'
LAT: 32.31789943N / LON: 104.01499839W

CORNER COORDINATES
NAD 83, SPCS NM EAST
A - X: 629036.85' / Y: 480296.05'
B - X: 634415.36' / Y: 480343.15'
C - X: 639494.87' / Y: 480162.85'
D - X: 639548.98' / Y: 478841.62'
E - X: 634413.21' / Y: 479010.81'
F - X: 629028.41' / Y: 478981.55'

CORNER COORDINATES
NAD 27, SPCS NM EAST
A - X: 587856.17' / Y: 480236.50'
B - X: 593232.60' / Y: 480283.54'
C - X: 598312.03' / Y: 480103.18'
D - X: 598366.10' / Y: 478781.87'
E - X: 593230.41' / Y: 478951.23'
F - X: 587845.69' / Y: 478922.03'

SHEET 1 OF 3
JOB No. R4000_002_A
REV 0 JCS 11/13/2019

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 _____ Date _____

Printed Name _____

E-mail Address _____

¹⁸ SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted 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 _____
Professional Surveyor

PRELIMINARY

Certificate Number _____

Distances/areas relative to NAD 83 Combined Scale Factor: 0.999774 Convergence: 00°08'50.61001"

EXHIBIT
3

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Phone: (575) 393-6161 Fax: (575) 393-0720
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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 | ² Pool Code 15011 | ³ Pool Name CULEBRA BLUFF, SOUTH; BONE SPRING |
| ⁴ Property Code | ⁵ Property Name VALKYRIE 12 SB FEDERAL COM | ⁶ Well Number 15H |
| ⁷ OGRID No. 372098 | ⁸ Operator Name MARATHON OIL PERMIAN LLC | ⁹ Elevation 2993' |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| L | 12 | 23S | 28E | | 1650 | SOUTH | 526 | WEST | EDDY |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| P | 7 | 23S | 29E | | 660 | SOUTH | 100 | EAST | EDDY |

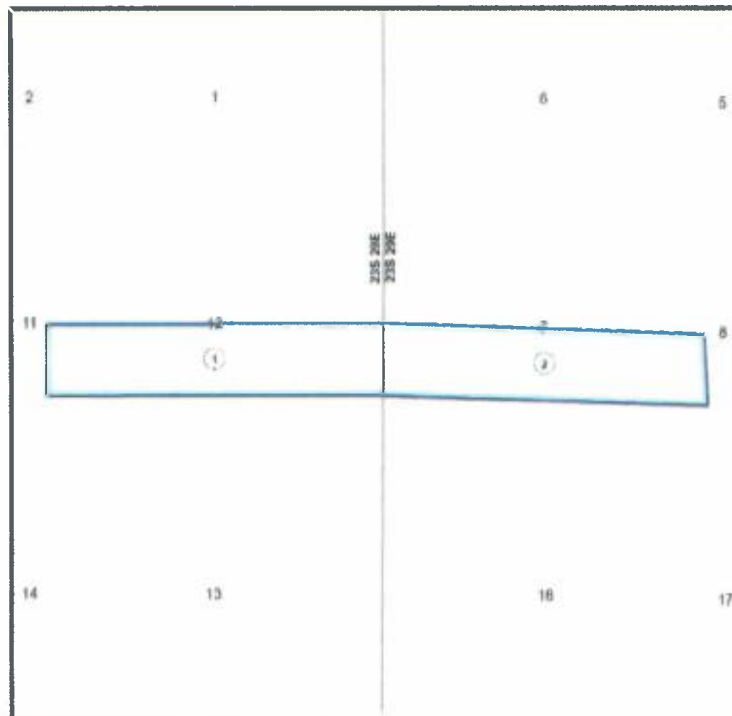
| | | | |
|---|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 317.44 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|---|-------------------------------|----------------------------------|-------------------------|

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.

| | |
|---|--|
| <p>Defining Well</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>SURFACE HOLE LOCATION 1650' FSL 526' FWL, SECTION 12 NAD 83, SPCS NM EAST X: 829557.00' / Y: 479318.00' LAT: 32.31740189N / LON: 104.04799652W NAD 27, SPCS NM EAST X: 588374.00' / Y: 479259.00' LAT: 32.31729889N / LON: 104.04699707W</p> </div> <div style="width: 48%;"> <p>KICK OFF / FIRST TAKE POINT 660' FSL 100' FWL, SECTION 12 NAD 83, SPCS NM EAST X: 629123.00' / Y: 478327.00' LAT: 32.31470108N / LON: 104.04900360W NAD 27, SPCS NM EAST X: 587941.00' / Y: 478268.00' LAT: 32.31460190N / LON: 104.04900360W</p> </div> </div> <p>LAST TAKE POINT/BOTTOM HOLE LOCATION 660' FSL 100' FWL, SECTION 7 NAD 83, SPCS NM EAST X: 639476.00' / Y: 478185.00' LAT: 32.31420135N / LON: 104.01589884W NAD 27, SPCS NM EAST X: 598293.00' / Y: 478125.00' LAT: 32.31409836N / LON: 104.01499939W</p> <p>CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 629028.41' / Y: 478981.55' B - X: 634413.21' / Y: 479010.81' C - X: 639548.98' / Y: 478841.62' D - X: 638603.08' / Y: 477520.38' E - X: 634411.06' / Y: 477678.47' F - X: 628017.97' / Y: 477667.04'</p> <p>CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 587645.69' / Y: 478922.03' B - X: 593230.41' / Y: 478951.23' C - X: 598366.10' / Y: 478781.97' D - X: 598420.17' / Y: 477460.76' E - X: 593228.22' / Y: 477618.92' F - X: 587635.22' / Y: 477607.56'</p> <p>SHEET 1 OF 3 JOB No. R4000_004_D REV 0 JCS 11/13/2019</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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p> <p>¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted 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.</p> <p>Date of Survey _____ Signature _____ Professional Surveyor</p> <p>PRELIMINARY THIS DOCUMENT IS NOT TO BE USED FOR RECORDING OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT FOR THE</p> <p>Certificate Number _____</p> |
|---|--|

Distances/areas relative to NAD 83 Combined Scale Factor: 0.999774 Convergence: 00°08'50.61001"

Lease Tract Map
 vaikyrie 12 SB Federal Com 14H
 N/2 of S/2 of Sections 12 T23S-R28E & 7, T23S-R29E – 317.28 acres



- Tract 1: Federal NMNM-032636
- Tract 2: Federal NMNM-090527



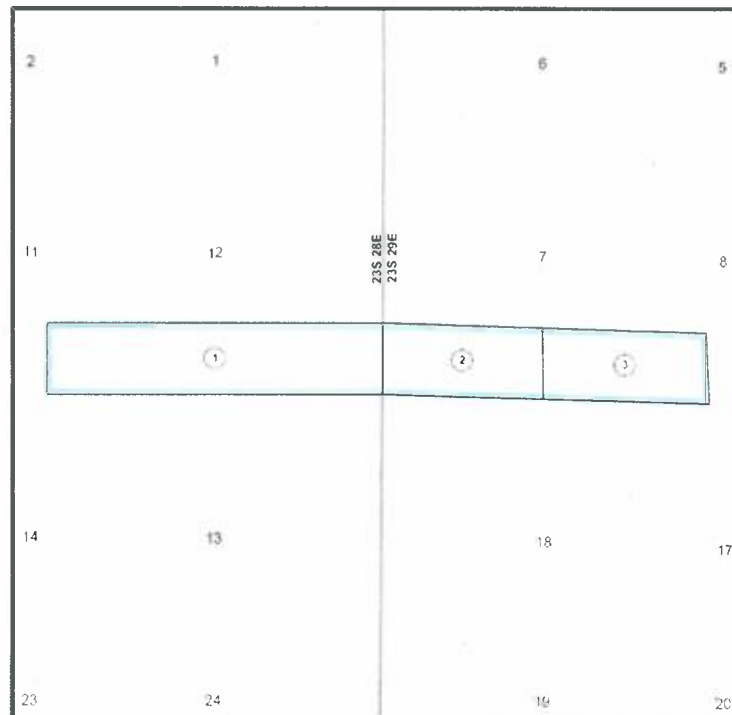
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' Summary of Interests
Vanyrie 12 SB Federal Com 14H
N/2 of S/2 of Sections 12 T23S-R28E & 7, T23S-R29E – 317.28 acres

| | |
|--|----------------|
| <u>Committed Working Interest:</u> | 60.988322% |
| Marathon Oil Permian LLC | 60.988322% |
| <u>Uncommitted Working Interest:</u> | 39.011678% |
| Devon Energy Production Company | 12.392839% |
| Tap Rock Resources, LLC | 11.974676% |
| WPX Energy Permian LLC | 8.447743% |
| Ray Westall Operating, Inc. | 6.196420% |



Lease Tract Map
 Varkent, 1/2 SB Federal Com 15H
 S/2 of S/2 of Sections 12 T23S-R28E & 7, T23S-R29E – 317.44 acres



- Tract 1: Federal NMNM-032636
- Tract 2: Federal NMNM-090527
- Tract 3: Fee



" Summary of Interests
Valkyrie 12 SB Federal Com 15H
S/2 of S/2 of Sections 12 T23S-R28E & 7, T23S-R29E – 317.44 acres

| | |
|--|----------------|
| <u>Committed Working Interest:</u> | 55.599877% |
| Marathon Oil Permian LLC | 55.599877% |
| <u>Uncommitted Working Interest:</u> | 44.400123% |
| Occidental Permian LP | 25.201613% |
| Devon Energy Production Company | 6.098790% |
| Tap Rock Resources, LLC | 5.893003% |
| WPX Energy Permian LLC | 4.157321% |
| Ray Westall Operating, Inc. | 3.049395% |



Chase Rice
Staff Land Professional



Marathon Oil Permian LLC
5555 San Felipe Street
Houston, Texas 77056
Telephone: 713-296-3055
Fax: 713-513-4006
cfrice@marathonoil.com

July 12, 2019

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED
7019 0700 0000 8791 1589

Chevron USA, Inc.
6301 Deauville Blvd.
Midland, TX 79706

Re: Valkyrie 12 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 9H, 10H, 11H, 12H, 13H, 14H & 15H
Well Proposals
Section 12, Township 23 South, Range 28 East and Section 7, Township 23 South, Range 29 East
Eddy County, New Mexico

Dear Chevron USA, Inc.:

Marathon Oil Permian LLC ("Marathon") proposes the drilling of the following wells located in Section 12, 23S-28E and Section 7, 23S-29E, Eddy County, New Mexico, all to be drilled from four surface pad locations.

| Pad | Well Name | SHL | BHL | Proration Unit | Target TVD | Est. MD |
|-----|--------------------------------|----------------------------------|--------------------------------|----------------------|------------|---------|
| 1 | Valkyrie 12 WXY Federal Com 1H | 1067' FWL & 1237' FNL of Sec. 12 | 100' FEL & 330' FNL of Sec. 7 | N2 of Secs. 7 & 12 | 9,676' | 20,184' |
| 1 | Valkyrie 12 WA Federal Com 3H | 1062' FWL & 1271' FNL of Sec. 12 | 100' FEL & 1254' FNL of Sec. 7 | N2 of Secs. 7 & 12 | 9,866' | 20,344' |
| 1 | Valkyrie 12 SB Federal Com 13H | 1056' FWL & 1296' FNL of Sec. 12 | 100' FEL & 1980' FNL of Sec. 7 | S2N2 of Secs. 7 & 12 | 8,255' | 18,782' |
| 1 | Valkyrie 12 WXY Federal Com 5H | 1051' FWL & 1324' FNL of Sec. 12 | 100' FEL & 2178' FNL of Sec. 7 | N2 of Secs. 7 & 12 | 9,676' | 20,206' |
| 2 | Valkyrie 12 WA Federal Com 7H | 541' FWL & 1745' FSL of Sec. 12 | 100' FEL & 2178' FSL of Sec. 7 | S2 of Secs. 7 & 12 | 9,866' | 20,356' |
| 2 | Valkyrie 12 SB Federal Com 14H | 537' FWL & 1712' FSL of Sec. 12 | 100' FEL & 1980' FSL of Sec. 7 | N2S2 of Secs. 7 & 12 | 8,255' | 18,750' |
| 2 | Valkyrie 12 WXY Federal Com 9H | 533' FWL & 1704' FSL of Sec. 12 | 100' FEL & 1254' FSL of Sec. 7 | S2 of Secs. 7 & 12 | 9,676' | 20,202' |
| 2 | Valkyrie 12 SB Federal Com 15H | 529' FWL & 1650' FSL of Sec. 12 | 100' FEL & 660' FSL of Sec. 7 | S2S2 of Secs. 7 & 12 | 8,255' | 18,858' |
| 2 | Valkyrie 12 WA Federal Com 11H | 526' FWL & 1623' FSL of Sec. 12 | 100' FEL & 330' FSL of Sec. 7 | S2 of Secs. 7 & 12 | 9,866' | 20,502' |
| 3 | Valkyrie 12 WD Federal Com 2H | 963' FWL & 1233' FNL of Sec. 12 | 100' FEL & 330' FNL of Sec. 7 | N2 of Secs. 7 & 12 | 10,357' | 20,849' |
| 3 | Valkyrie 12 WD Federal Com 4H | 957' FWL & 1263' FNL of Sec. 12 | 100' FEL & 1254' FNL of Sec. 7 | N2 of Secs. 7 & 12 | 10,547' | 21,013' |
| 3 | Valkyrie 12 WD Federal Com 6H | 953' FWL & 1293' FNL of Sec. 12 | 100' FEL & 2178' FNL of Sec. 7 | N2 of Secs. 7 & 12 | 10,357' | 20,876' |
| 4 | Valkyrie 12 WD Federal Com 8H | 471' FWL & 1720' FSL of Sec. 20 | 100' FEL & 2178' FSL of Sec. 7 | S2 of Secs. 7 & 12 | 10,547' | 21,034' |
| 4 | Valkyrie 12 WD Federal Com 10H | 463' FWL & 1685' FSL of Sec. 20 | 100' FEL & 1254' FSL of Sec. 7 | S2 of Secs. 7 & 12 | 10,357' | 20,880' |
| 4 | Valkyrie 12 WD Federal Com 12H | 460' FWL & 1657' FSL of Sec. 20 | 100' FEL & 330' FSL of Sec. 7 | S2 of Secs. 7 & 12 | 10,547' | 21,179' |



These proposed locations and target depths are subject to change depending on any surface or subsurface concerns encountered. The AFEs represent an estimate of the costs that will be incurred to drill and complete the wells, but those electing to participate in the wells are responsible for their proportionate share of the actual costs incurred.

Marathon proposes drilling the wells under the terms of the 1989 AAPL JOA. Enclosed is a draft of the JOA covering the contract area. The JOA has the following general provisions:

- 100%/300%/300% non-consent penalty
- \$7,000/\$700 drilling and producing rates
- Contract area of All of Section 12, 23S-28E and All of Section 7, 23S-29E, covering all depths

If your election is to participate in the drilling and completion of the wells, please sign and return a copy of this letter along with the enclosed AFE within thirty (30) days of receipt of this proposal.

If you do not wish to participate, Marathon proposes to acquire your interest via term assignment at the following terms:

-
-
-

This term assignment offer terminates on August 12, 2019 and is subject to due diligence and title verification satisfactory to Marathon.

Should you have any questions regarding this or other matters, please do not hesitate to contact me at the above listed phone number or email.

Sincerely,



Chase Rice
Marathon Oil Permian LLC

Valkyrie 12 Federal Com 1H, 2H, 3H, 4H, 5H, 6H, 7H, 8H, 9H, 10H, 11H, 12H, 13H, 14H & 15H

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WXY Federal Com 1H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WXY Federal Com 1H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 2H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 2H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WA Federal Com 3H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WA Federal Com 3H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 4H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 4H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WXY Federal Com 5H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WXY Federal Com 5H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 6H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 6H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WA Federal Com 7H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WA Federal Com 7H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 8H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 8H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WXY Federal Com 9H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WXY Federal Com 9H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 10H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 10H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WA Federal Com 11H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WA Federal Com 11H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 12H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 WD Federal Com 12H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 SB Federal Com 13H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 SB Federal Com 13H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 SB Federal Com 14H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 SB Federal Com 14H.

_____ Chevron USA, Inc. elects to participate in the drilling, completing, and equipping of the Valkyrie 12 SB Federal Com 15H.

_____ Chevron USA, Inc. elects NOT to participate in the drilling, completing, and equipping of the Valkyrie 12 SB Federal Com 15H.

Chevron USA, Inc.

By: _____

Print Name: _____

Title: _____

Date: _____

MARATHON OIL PERMIAN LLC
 AUTHORITY FOR EXPENDITURE
 DETAIL OF ESTIMATED WELL COSTS

DATE 7/11/2019
 DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD
 COMPLETION PREPARED BY JOSH SHANNON
 FACILITIES PREPARED BY BRIAN UPSCOMB
 ARTIFICIAL LIFT PREPARED BY BRIAN UPSCOMB

| | | | | |
|-----------------|--------------------------------|-----------------------------|----------------|------------------------|
| Asset Team | PERMIAN | | | |
| Field | CULEBRA BLUFF, SC | FORMATION: 2ND BONE SPRINGS | WILDCAT | EXPLORATION |
| Lease/Facility | VALKYRIE 12 SB FEDERAL COM 14H | | DEVELOPMENT | RECOMPLETION |
| Location | EDDY COUNTY | | X EXPLOITATION | WORKOVER |
| Prospect | MALAGA | | | |
| Est Total Depth | 18,750 | Est Drilling Days | | Est Completion Days 11 |

LOCATION COST - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|----------------------------------|-------------------------------|----------------|
| 7001270 | Location and Access | 40,200 |
| 7001250 | Land Broker Fees and Services | 27,000 |
| TOTAL LOCATION COST - INTANGIBLE | | 67,200 |

DRILLING COST - TANGIBLE

| | | |
|---------------------------|---|---------|
| 7012050 | Conductor Pipe | 28,000 |
| 7012050 | Surface Casing | 19,000 |
| 7012050 | Intermediate Casing 1 | 66,000 |
| 7012050 | Intermediate Casing 2 | 208,000 |
| 7012050 | Production Casing | 142,000 |
| 7012050 | Orig Liner Hanger, Tieback Eq & Csg Accessories | 55,000 |
| 7012550 | Drilling Wellhead Equipment | 50,000 |
| 7012040 | Casing & Tubing Access | 24,000 |
| 7012270 | Miscellaneous MRO Materials | 5,000 |
| TOTAL DRILLING - TANGIBLE | | 597,000 |

DRILLING COST - INTANGIBLE

| | | |
|-----------------------------|--|-------------|
| 7019200 | Drilling Rig Mob/Demob | 26,000 |
| 7019220 | Drilling Rig - day work/footage | 486,000 |
| 7019040 | Directional Drilling Services | 155,000 |
| 7019020 | Cement and Cementing Service Surface | 15,000 |
| 7019020 | Cement and Cementing Service Intermediate 1 | 25,000 |
| 7019020 | Cement and Cementing Service Intermediate 2 | 35,000 |
| 7019020 | Cement and Cementing Service Production | 60,000 |
| 7019140 | Mud Fluids & Services | 62,000 |
| 7012310 | Solids Control equipment | 32,000 |
| 7012020 | Bits | 72,000 |
| 7019010 | Casing Crew and Services | 30,000 |
| 7016350 | Fuel (Rig) | 55,000 |
| 7019140 | Fuel (Mud) | 30,000 |
| 7001460 | Water (non potable) | 25,000 |
| 7012350 | Water (potable) | 5,000 |
| 7019000 | Well Logging Services | - |
| 7019150 | Mud Logging+geosteering | 14,000 |
| 7019250 | Stabilizers, Hole Openers, Underreamers (DH rentals) | 15,000 |
| 7019110 | Casing inspection/cleaning | 15,000 |
| 7019110 | Drill pipe/collar inspection services | 10,000 |
| 7016180 | Freight - truck | 25,000 |
| 7001460 | Water hauling and disposal (includes soil farming) | 60,000 |
| 7001160 | Contract Services - Disposal/Non-Hazardous Waste | 80,000 |
| 7001440 | Vacuum Trucks | 10,000 |
| 7000030 | Contract Labor - general | 30,000 |
| 7000030 | Contract Labor - Operations | 3,000 |
| 7001200 | Contract Services - Facilities | 10,000 |
| 7019300 | Well Services - Well Control Services | 19,000 |
| 7019350 | Well Services - Well/Wellhead Services | 10,000 |
| 7018150 | Rental Tools and Equipment (surface rentals) | 72,000 |
| 7018150 | Rig Equipment and Misc. | 9,000 |
| 7001110 | Telecommunications Services | 5,000 |
| 7001120 | Consulting Services | 84,600 |
| 7001400 | Safety and Environmental | 28,800 |
| 7018120 | Rental Buildings (trailers) | 14,400 |
| 7019310 | Coring (sidewalls & analysis) | - |
| 7011010 | 7% Contingency & Taxes | 155,736 |
| TOTAL DRILLING - INTANGIBLE | | \$1,783,536 |

TOTAL DRILLING COST

\$2,380,536

COMPLETION - TANGIBLE

| | | |
|-----------------------------|---|----------|
| 7012580 | Tubing | - |
| 7012040 | Tubing Accessories (nipple, wireline entry) | - |
| 7012550 | Wellhead Equip | 15,000 |
| 7012560 | Packers - Completion Equipment | - |
| TOTAL COMPLETION - TANGIBLE | | \$15,000 |



Asset Team PERMIAN
 Field CULEBRA BLUFF, SC FORMATION: 2ND BONE SPRINGS
 Lease/Facility VALKYRIE 12 SB FEDERAL COM 14H

COMPLETION - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|-------------------------------|--|----------------|
| 7001270 | Location and Access (dress location after rig move, set anchors) | 10,000 |
| 7019230 | Drilling Rig During Completion | - |
| 7019140 | Mud Fluids & Services | - |
| 7019030 | Coiled Tubing Services (3 runs) | 350,000 |
| 7019240 | Snubbing Services | - |
| 7019270 | Pulling/Swab Units | - |
| 7016350 | Fuel (from drlg) | - |
| 7019010 | Casing Crew and Services | - |
| 7019020 | Cement and Cementing Services | - |
| 7019080 | Well Testing Services (flow hand & equip) | 470,000 |
| 7019320 | Fracturing Services | 3,174,815 |
| 7019330 | Perforating | 300,000 |
| 7019360 | Wireline Services | 15,000 |
| 7001460 | Water Hauling & Disposal (frac fluids) | 355,000 |
| 7016180 | Freight - Truck (haul pipe; drlg & compl) | 20,000 |
| 7018150 | BOP Rental & Testing | - |
| 7018150 | Rental Tools and Equipment (incl drlg; lightplant, hydra-walk) | - |
| 7018150 | CT Downhole Rental Equipment (ie. BH, BHA) | - |
| 7000030 | Contract Labor - general | 60,000 |
| 7001110 | Telecommunications Services | 100,000 |
| 7001400 | Safety and Environmental | - |
| 7001120 | Consulting Services | 100,000 |
| 7018150 | Zipper Manifold | 220,000 |
| 7019300 | Frack Stack Rentals | 85,000 |
| 7016190 | Freight (Transportation Services) | - |
| 7018150 | Equipment Rental (w/o operator, frac tanks, lightplants) | 100,000 |
| 7018120 | Rental Buildings (trailers) | 35,000 |
| 7000030 | Contract Labor - Pumping (pump-down pumps) | 60,000 |
| 7011010 | 8% Contingency & Taxes | 385,185 |
| TOTAL COMPLETION - INTANGIBLE | | \$5,840,000 |

TOTAL COMPLETION COST

\$5,855,000

SURFACE EQUIPMENT - TANGIBLE

| | | |
|------------------------------------|--|-----------|
| 7012350 | Misc. Piping, Fittings & Valves | 16,247 |
| 7006640 | Company Labor & Burden | - |
| 7000030 | Contract Labor - General | 57,416 |
| 7001110 | Telecommunication equip (Telemetry) | - |
| 7012410 | Line Pipe & Accessories | - |
| 7012270 | Miscellaneous Materials (containment system) | 31,387 |
| 7008060 | SCADA | - |
| 7016180 | Freight - truck | - |
| 7001190 | Contract Engineering | 5,998 |
| 7012290 | Metering and Instrumentation | 4,659 |
| 7012290 | I/E Materials | 105,908 |
| 7012200 | Gas Treating | - |
| 7012200 | Dehydration | - |
| 7012010 | Compressor | - |
| 7012350 | Power | - |
| 7012610 | Vapor Recovery Unit | - |
| 7012440 | Separator & other pressure vessels | 306,305 |
| 7012500 | Tanks | 235,346 |
| 7012100 | Heater Treater | - |
| 7012640 | Flare & Accessories | 18,634 |
| 7000010 | Electrical Labor | 9,608 |
| 7000010 | Mechanical Labor | - |
| 7012480 | Rod Pumping unit & Pad | - |
| 7012180 | Pumping Unit Engine | - |
| 7012350 | Electrical Power (electrical cooperative construction costs) | - |
| TOTAL SURFACE EQUIPMENT - TANGIBLE | | \$791,507 |

TOTAL SURFACE EQUIPMENT COST

\$ 791,507

ARTIFICIAL LIFT

| | | |
|-----------------------|--------------------------------------|---------|
| 7006640 | Company Labor | 45,000 |
| 7012180 | Gas Lift Equipment | 15,000 |
| 7012480 | Rod Pumping, Sucker Rods & Rod Pump | 6,250 |
| 7012140 | Elect Sub Pumps (ESP) | 17,500 |
| 7019350 | Well Services-Well/Wellhead Services | 6,000 |
| 7012270 | Materials & Supplies-Tangible | 6,000 |
| 7012550 | Surface Wellhead Equipment | 5,000 |
| 7012390 | Pig Launchers/Receivers & Rel Equip | 6,250 |
| 7011010 | 8% Contingency & Taxes | 3,000 |
| TOTAL ARTIFICIAL LIFT | | 110,000 |

TOTAL ARTIFICIAL LIFT COST

\$ 110,000

SUMMARY OF ESTIMATED DRILLING WELL COSTS

| | |
|------------------------------|--------------|
| TOTAL LOCATION COST | \$ 67,200 |
| TOTAL DRILLING COST | \$ 2,380,536 |
| TOTAL COMPLETION COST | \$ 5,855,000 |
| TOTAL SURFACE EQUIPMENT COST | \$ 791,507 |
| TOTAL ARTIFICIAL LIFT COST | \$ 110,000 |
| GRAND TOTAL COST | \$9,204,243 |

Participant's Approval

Name of Company: _____
 Signature: _____
 Title: _____ Date: _____

MARATHON OIL PERMIAN LLC
 AUTHORITY FOR EXPENDITURE
 DETAIL OF ESTIMATED WELL COSTS

DATE 7/11/2019
 DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD
 COMPLETION PREPARED BY JOSH SHANNON
 FACILITIES PREPARED BY BRIAN LIPSCOMB
 ARTIFICIAL LIFT PREPARED BY BRIAN LIPSCOMB

| | | | | |
|----------------|--------------------------------|-----------------------------|----------------|--------------|
| Asset Team | PERMIAN | | | |
| Field | CULEBRA BLUFF, SC | FORMATION: 2ND BONE SPRINGS | WILDCAT | EXPLORATION |
| Lease/Facility | VALKYRIE 12 SB FEDERAL COM 15H | | DEVELOPMENT | RECOMPLETION |
| Location | EDDY COUNTY | | X EXPLOITATION | WORKOVER |
| Prospect | MALAGA | | | |

| | | | | | |
|-----------------|---------------|-------------------|--|---------------------|-----------|
| Est Total Depth | <u>18,858</u> | Est Drilling Days | | Est Completion Days | <u>11</u> |
|-----------------|---------------|-------------------|--|---------------------|-----------|

LOCATION COST - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|----------------------------------|-------------------------------|----------------|
| 7001170 | Location and Access | 40,200 |
| 7001250 | Land Broker Fees and Services | 27,000 |
| TOTAL LOCATION COST - INTANGIBLE | | 67,200 |

DRILLING COST - TANGIBLE

| | | |
|---------------------------|---|---------|
| 7012050 | Conductor Pipe | 28,000 |
| 7012050 | Surface Casing | 19,000 |
| 7012050 | Intermediate Casing 1 | 66,000 |
| 7012050 | Intermediate Casing 2 | 208,000 |
| 7012050 | Production Casing | 143,000 |
| 7012050 | Drig Liner Hanger, Tieback Eq & Csg Accessories | 55,000 |
| 7012550 | Drilling Wellhead Equipment | 50,000 |
| 7012040 | Casing & Tubing Access | 24,000 |
| 7012270 | Miscellaneous MRO Materials | 5,000 |
| TOTAL DRILLING - TANGIBLE | | 598,000 |

DRILLING COST - INTANGIBLE

| | | |
|-----------------------------|--|-------------|
| 7019200 | Drilling Rig Mob/Demob | 26,000 |
| 7019220 | Drilling Rig - day work/footage | 486,000 |
| 7019040 | Directional Drilling Services | 155,000 |
| 7019020 | Cement and Cementing Service | 15,000 |
| 7019020 | Cement and Cementing Service | 25,000 |
| 7019020 | Cement and Cementing Service | 35,000 |
| 7019020 | Cement and Cementing Service | 60,000 |
| 7019140 | Mud Fluids & Services | 62,000 |
| 7012310 | Solids Control equipment | 33,000 |
| 7012020 | Bits | 72,000 |
| 7019010 | Casing Crew and Services | 30,000 |
| 7016350 | Fuel (Rig) | 55,000 |
| 7019140 | Fuel (Mud) | 30,000 |
| 7001460 | Water (non potable) | 25,000 |
| 7012350 | Water (potable) | 5,000 |
| 7019000 | Well Logging Services | - |
| 7019150 | Mud Logging-geosteering | 14,000 |
| 7019250 | Stabilizers, Hole Openers, Underreamers (DH rentals) | 15,000 |
| 7019110 | Casing Inspection/cleaning | 15,000 |
| 7019110 | Drill pipe/collar inspection services | 10,000 |
| 7016180 | Freight - truck | 25,000 |
| 7001460 | Water hauling and disposal (includes soil farming) | 60,000 |
| 7001160 | Contract Services - Disposal/Non-Hazardous Waste | 80,000 |
| 7001440 | Vacuum Trucks | 10,000 |
| 7000030 | Contract Labor - general | 30,000 |
| 7000030 | Contract Labor - Operations | 3,000 |
| 7001200 | Contract Services - Facilities | 10,000 |
| 7019300 | Well Services - Well Control Services | 19,000 |
| 7019350 | Well Services - Well/Wellhead Services | 10,000 |
| 7018150 | Rental Tools and Equipment (surface rentals) | 72,000 |
| 7018150 | Rig Equipment and Misc. | 9,000 |
| 7001110 | Telecommunications Services | 5,000 |
| 7001120 | Consulting Services | 84,600 |
| 7001400 | Safety and Environmental | 28,800 |
| 7018120 | Rental Buildings (trailers) | 14,400 |
| 7019310 | Coring (sidewalls & analysis) | - |
| 7011010 | 7% Contingency & Taxes | 155,806 |
| TOTAL DRILLING - INTANGIBLE | | \$1,783,606 |

TOTAL DRILLING COST

\$2,381,606

COMPLETION - TANGIBLE

| | | |
|-----------------------------|---|----------|
| 7012580 | Tubing | - |
| 7012040 | Tubing Accessories (nipple, wireline entry) | - |
| 7012550 | Wellhead Equip | 15,000 |
| 7012560 | Packers - Completion Equipment | - |
| TOTAL COMPLETION - TANGIBLE | | \$15,000 |

MARATHON OIL PERMIAN LLC
AUTHORITY FOR EXPENDITURE
DETAIL OF ESTIMATED WELL COSTS

DATE 7/11/2019

Asset Team PERMIAN
Field CULEBRA BLUFF, SC FORMATION: 2ND BONE SPRINGS
Lease/Facility VALKYRIE 12 SB FEDERAL COM 15H

COMPLETION - INTANGIBLE

| GL CODE | DESCRIPTION | ESTIMATED COST |
|-------------------------------|--|----------------|
| 7001270 | Location and Access (dress location after rig move, set anchors) | 10,000 |
| 7019220 | Drilling Rig During Completion | - |
| 7019140 | Mud Fluids & Services | - |
| 7019030 | Coiled Tubing Services (3 runs) | 350,000 |
| 7019240 | Snubbing Services | - |
| 7019270 | Pulling/Swab Units | - |
| 7016350 | Fuel (from drlg) | - |
| 7019010 | Casing Crew and Services | - |
| 7019020 | Cement and Cementing Services | - |
| 7019080 | Well Testing Services (flow hand & equip) | 470,000 |
| 7019320 | Fracturing Services | 3,174,815 |
| 7019330 | Perforating | 300,000 |
| 7019360 | Wireline Services | 15,000 |
| 7001460 | Water Hauling & Disposal (frac fluids) | 355,000 |
| 7016180 | Freight - Truck (haul pipe; drlg & compl) | 20,000 |
| 7018150 | BOP Rental & Testing | - |
| 7018150 | Rental Tools and Equipment (Incl drlg; lightplant, hydra-walk) | - |
| 7018150 | CT Downhole Rental Equipment (ie. BH, BHA) | - |
| 7000030 | Contract Labor - general | 60,000 |
| 7001110 | Telecommunications Services | 100,000 |
| 7001400 | Safety and Environmental | - |
| 7001120 | Consulting Services | 100,000 |
| 7018150 | Zipper Manifold | 210,000 |
| 7019300 | Frack Stack Rentals | 85,000 |
| 7016190 | Freight (Transportation Services) | - |
| 7018150 | Equipment Rental (w/o operator, frac tanks, lightplants) | 100,000 |
| 7018120 | Rental Buildings (trailers) | 35,000 |
| 7000090 | Contract Labor - Pumping (pump-down pumps) | 60,000 |
| 7011010 | 8% Contingency & Taxes | 385,185 |
| TOTAL COMPLETION - INTANGIBLE | | \$5,840,000 |
| TOTAL COMPLETION COST | | \$5,855,000 |

SURFACE EQUIPMENT - TANGIBLE

| | | |
|------------------------------------|--|------------|
| 7012350 | Misc. Piping, Fittings & Valves | 16,247 |
| 7006640 | Company Labor & Burden | - |
| 7000030 | Contract Labor - General | 57,416 |
| 7001110 | Telecommunication equip (Telemetry) | - |
| 7012410 | Line Pipe & Accessories | - |
| 7012270 | Miscellaneous Materials (containment system) | 33,387 |
| 7008060 | SCADA | - |
| 7016180 | Freight - truck | - |
| 7001190 | Contract Engineering | 5,998 |
| 7012290 | Metering and Instrumentation | 4,659 |
| 7012290 | IB/E Materials | 105,908 |
| 7012200 | Gas Treating | - |
| 7012200 | Dehydration | - |
| 7012010 | Compressor | - |
| 7012350 | Power | - |
| 7012610 | Vapor Recovery Unit | - |
| 7012440 | Separator & other pressure vessels | 306,305 |
| 7012500 | Tanks | 235,346 |
| 7012100 | Heater Treater | - |
| 7012640 | Flare & Accessories | 18,634 |
| 7000010 | Electrical Labor | 9,608 |
| 7000010 | Mechanical Labor | - |
| 7012480 | Rod Pumping unit & Pad | - |
| 7012180 | Pumping Unit Engine | - |
| 7012350 | Electrical Power (electrical cooperative construction costs) | - |
| TOTAL SURFACE EQUIPMENT - TANGIBLE | | \$791,507 |
| TOTAL SURFACE EQUIPMENT COST | | \$ 791,507 |

ARTIFICIAL LIFT

| | | |
|----------------------------|--------------------------------------|------------|
| 7006640 | Company Labor | 45,000 |
| 7012180 | Gas Lift Equipment | 15,000 |
| 7012480 | Rod Pumping, Sucker Rods & Rod Pump | 6,250 |
| 7012140 | Elect Sub Pumps (ESP) | 17,500 |
| 7019350 | Well Services-Well/Wellhead Services | 6,000 |
| 7012270 | Materials & Supplies-Tangible | 6,000 |
| 7012550 | Surface Wellhead Equipment | 5,000 |
| 7012390 | Pig Launchers/Receivers & Rel Equip | 6,250 |
| 7011010 | 8% Contingency & Taxes | 3,000 |
| TOTAL ARTIFICIAL LIFT | | 110,000 |
| TOTAL ARTIFICIAL LIFT COST | | \$ 110,000 |

SUMMARY OF ESTIMATED DRILLING WELL COSTS

| | |
|------------------------------|--------------|
| TOTAL LOCATION COST | \$ 67,200 |
| TOTAL DRILLING COST | \$ 2,381,606 |
| TOTAL COMPLETIONS COST | \$ 5,855,000 |
| TOTAL SURFACE EQUIPMENT COST | \$ 791,507 |
| TOTAL ARTIFICIAL LIFT COST | \$ 110,000 |
| GRAND TOTAL COST | \$9,205,313 |

Participant's Approval

Name of Company: _____
Signature: _____
Title: _____ Date: _____

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF MARATHON OIL PERMIAN LLC
FOR COMPUSLORY POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NOS. 20864, 20867, 20868

AFFIDAVIT

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

Deana M. Bennett, attorney in fact and authorized representative of Marathon Oil Permian LLC, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Applications were sent under a notice letter attached hereto and that proof of receipt is attached hereto.



Deana M. Bennett

SUBSCRIBED AND SWORN to before me this 12 day of November, 2019 by Deana M. Bennett.



Notary Public

My commission expires: 02-27-21





MODRALL SPERLING

L A W Y E R S

October 24, 2019

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Deana M. Bennett
505.848.1834
Deana.Bennett@modrall.com

Nicole T. Russell
505.848.1807
Nicole.Russell@modrall.com

**Re: APPLICATION OF MARATHON OIL PERMIAN LLC FOR
COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NO. 20864

**APPLICATION OF MARATHON OIL PERMIAN LLC FOR
COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NO. 20868

TO: AFFECTED PARTIES

This letter is to advise you that Marathon Oil Permian LLC ("Marathon") has filed the above-listed applications.

In Case No. 20864, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the S/2 of Section 12, Township 23 South, Range 28 East and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 WA Federal Com 7H, Valkyrie 12 WXY Federal Com 9H, Valkyrie 12 WA Federal Com 11H, Valkyrie 12 WD Federal Com 8H, Valkyrie 12 WD Federal Com 10H, Valkyrie 12 WD Federal Com 12H, to be horizontally drilled. The producing area for these wells will be unorthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the wells are drilled and when the first well is completed.

In Case No. 20868, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 15H well, to be horizontally drilled. The producing area for this well will

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Roehl Harris & Sisk P.A.

500 Fourth Street NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico 87103-2168

Tel: 505.848.1800
www.modrall.com

be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed.

These cases have been set for hearing before a Division Examiner on November 14, 2019, starting at 8:15 a.m. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. As a party who may be affected by these applications, we are notifying you of your right to appear at the hearing and participate in the cases, including the right to present evidence either in support of or in opposition to the applications. Failure to appear at the hearing may preclude you from any involvement in the cases at a later date.

You are further notified that if you desire to appear in these cases, then you are requested to file a Pre-Hearing Statement with the Division at least four business days in advance of a scheduled hearing before the Division or the Commission, but in no event later than 5:00 p.m. mountain time, on the Thursday preceding the scheduled hearing date, with a copy delivered to the undersigned.

Sincerely,



Deana M. Bennett

Nicole T. Russell

Attorneys for Applicant



MODRALL SPERLING

L A W Y E R S

October 24, 2019

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Deana M. Bennett
505.848.1834
Deana.Bennett@modrall.com

Nicole T. Russell
505.848.1807
Nicole.Russell@modrall.com

**Re: APPLICATION OF MARATHON OIL PERMIAN LLC FOR
COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NO. 20864

**APPLICATION OF MARATHON OIL PERMIAN LLC FOR
COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NO. 20867

**APPLICATION OF MARATHON OIL PERMIAN LLC FOR
COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.**

CASE NO. 20868

TO: AFFECTED PARTIES

This letter is to advise you that Marathon Oil Permian LLC ("Marathon") has filed the above-listed applications.

In Case No. 20864, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the S/2 of Section 12, Township 23 South, Range 28 East and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 WA Federal Com 7H, Valkyrie 12 WXY Federal Com 9H, Valkyrie 12 WA Federal Com 11H, Valkyrie 12 WD Federal Com 8H, Valkyrie 12 WD Federal Com 10H, Valkyrie 12 WD Federal Com 12H, to be horizontally drilled. The producing area for these wells will be unorthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the wells are drilled and when the first well is completed.

In Case No. 20867, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit

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Suite 1000
Albuquerque,
New Mexico 87102

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Tel: 505.848.1800
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underlying the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 14H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed..

In Case No. 20868, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 15H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed.

These cases have been set for hearing before a Division Examiner on November 14, 2019, starting at 8:15 a.m. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. As a party who may be affected by these applications, we are notifying you of your right to appear at the hearing and participate in the cases, including the right to present evidence either in support of or in opposition to the applications. Failure to appear at the hearing may preclude you from any involvement in the cases at a later date.

You are further notified that if you desire to appear in these cases, then you are requested to file a Pre-Hearing Statement with the Division at least four business days in advance of a scheduled hearing before the Division or the Commission, but in no event later than 5:00 p.m. mountain time, on the Thursday preceding the scheduled hearing date, with a copy delivered to the undersigned.

Sincerely,



Deana M. Bennett

Nicole T. Russell

Attorneys for Applicant

Val. 20864

**S/2 of Section 12, Township 23 South, Range 28 East, NMPM
& S/2 of Section 7, Township 23 South, Range 29 East, NMPM
Eddy County, New Mexico
Wolfcamp Formations**

| Type | Interest Owner |
|------|---|
| WI | Tap Rock Resources, LLC 602 Park Point Dr. Golden, CO 80401 |
| WI | Occidental Permian LP 5 Greenway Plaza, Suite 110 Houston, Texas 77046-0521 |
| WI | Devon Energy Production Company 333 W. Sheridan Ave. Oklahoma City, OK |
| WI | WPX Energy Permian LLC 3500 One Williams Center Tulsa, OK 74172 |
| WI | Ray Westall Operating, Inc. 132447 Lovington Highway Loco Hills, NM 88255 |
| ORRI | Winston Resources, Inc. 1520 W. Canal St. Littleton, CO 80120 |
| ORRI | McMullen Minerals, LLC 2821 West 7th Street, Suite 515 Fort Worth, TX 76107 |
| ORRI | Pegasus Resources, LLC P.O. Box 470698 Fort Worth, TX 76147 |
| ORRI | Terri L. Simpson 14437 Rios Canyon Road El Cajon, CA |
| ORRI | John D. Hamiga P.O. Box 14144 San Francisco, CA |
| ORRI | Charmar, LLC 4815 Vista Del Oso Court NE Albuquerque, NM 87109 |
| ORRI | Kenneth Jay Reynolds 300 North Marienfield, Suite 320 Midland, TX 79701 |

| | |
|------|--|
| ORRI | Charles Randall Hicks 1500 West Third Roswell, NM 88201 |
| ORRI | Vikki L. Hicks Smith 1213 Saint St. NE Albuquerque, NM 87112 |
| ORRI | Tap Rock Minerals LP 602 Park Point Drive, Suite 200 Golden, CO 80401 |
| ORRI | Colins & Ware, Inc. 303 W Wall #2200 Midland, TX 79701 |
| ORRI | Curtis A. Anderson and Edna I. Anderson, Joint Tenants with rights of survivorship 9314 Cherry Brook Lane Frisco, TX 75083 |

Val. 20868

S2 S2 of Section 12, Township 23 South, Range 28 East, NMPM
& S2 S2 of Section 7, Township 23 South, Range 29 East, NMPM
Eddy County, New Mexico
Bone Spring Formations

| Type | Interest Owner |
|------|---|
| WI | Tap Rock Resources, LLC 602 Park Point Dr. Golden, CO 80401 |
| WI | Occidental Permian LP 5 Greenway Plaza, Suite 110 Houston, Texas 77046-0521 |
| WI | Devon Energy Production Company 333 W. Sheridan Ave. Oklahoma City, OK |
| WI | WPX Energy Permian LLC 3500 One Williams Center Tulsa, OK 74172 |
| WI | Ray Westall Operating, Inc. 132447 Lovington Highway Loco Hills, NM 88255 |
| ORRI | Winston Resources, Inc. 1520 W. Canal St. Littleton, CO 80120 |
| ORRI | McMullen Minerals, LLC 2821 West 7th Street, Suite 515 Fort Worth, TX 76107 |
| ORRI | Pegasus Resources, LLC P.O. Box 470698 Fort Worth, TX 76147 |
| ORRI | Terri L. Simpson 14437 Rios Canyon Road El Cajon, CA |
| ORRI | John D. Hamiga P.O. Box 14144 San Francisco, CA |
| ORRI | Charmar, LLC 4815 Vista Del Oso Court NE Albuquerque, NM 87109 |
| ORRI | Kenneth Jay Reynolds 300 North Marienfield, Suite 320 Midland, TX 79701 |

| | |
|-------------|--|
| ORRI | Charles Randall Hicks 1500 West Third Roswell, NM 88201 |
| ORRI | Vikki L. Hicks Smith 1213 Saint St. NE Albuquerque, NM 87112 |
| ORRI | Tap Rock Minerals LP 602 Park Point Drive, Suite 200 Golden, CO 80401 |
| ORRI | Colins & Ware, Inc. 303 W Wall #2200 Midland, TX 79701 |
| ORRI | Curtis A. Anderson and Edna I. Anderson, Joint Tenants with rights of survivorship 9314 Cherry Brook Lane Frisco, TX 75083 |

Val. 20667

N2 S2 of Section 12, Township 23 South, Range 28 East, NMPM
& N2 S2 of Section 7, Township 23 South, Range 29 East, NMPM
Eddy County, New Mexico
Bone Spring Formations

| Type | Interest Owner |
|------|---|
| WI | Tap Rock Resources, LLC 602 Park Point Dr. Golden, CO 80401 |
| WI | Devon Energy Production Company 333 W. Sheridan Ave. Oklahoma City, OK |
| WI | WPX Energy Permian LLC 3500 One Williams Center Tulsa, OK 74172 |
| WI | Ray Westall Operating, Inc. 132447 Lovington Highway Loco Hills, NM 88255 |
| ORRI | Winston Resources, Inc. 1520 W. Canal St. Littleton, CO 80120 |
| ORRI | McMullen Minerals, LLC 2821 West 7th Street, Suite 515 Fort Worth, TX 76107 |
| ORRI | Pegasus Resources, LLC P.O. Box 470698 Fort Worth, TX 76147 |
| ORRI | Terri L. Simpson 14437 Rios Canyon Road El Cajon, CA |
| ORRI | John D. Hamiga P.O. Box 14144 San Francisco, CA |
| ORRI | Charmar, LLC 4815 Vista Del Oso Court NE Albuquerque, NM 87109 |
| ORRI | Kenneth Jay Reynolds 300 North Marienfield, Suite 320 Midland, TX 79701 |
| ORRI | Charles Randall Hicks 1500 West Third Roswell, NM 88201 |

| | |
|-------------|--|
| ORRI | Vikki L. Hicks Smith 1213 Saint St. NE Albuquerque, NM 87112 |
| ORRI | Tap Rock Minerals LP 602 Park Point Drive, Suite 200 Golden, CO 80401 |
| ORRI | Colins & Ware, Inc. 303 W Wall #2200 Midland, TX 79701 |
| ORRI | Curtis A. Anderson and Edna I. Anderson, Joint Tenants with rights of survivorship 9314 Cherry Brook Lane Frisco, TX 75083 |

Karlene Schuman
Modrall Sperling Roehl Harris & Sisk P.A.
500 Fourth Street, Suite 1000
Albuquerque NM 87102

PS Form 3877

Type of Mailing: CERTIFIED MAIL
10/24/2019

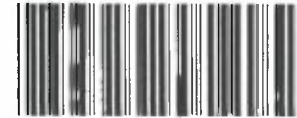


Firm Mailing Book ID: 177846

| Line | USPS Article Number | Name, Street, City, State, Zip | Postage | Service Fee | RR Fee | Rest.Del.Fee | Reference Contents |
|------|-----------------------------|---|---------|-------------|--------|--------------|----------------------------|
| 1 | 9314 8699 0430 0064 8899 73 | Tap Rock Resources LLC 602 Park Point Dr. Golden CO 80401 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 2 | 9314 8699 0430 0064 8899 80 | Occidental Permian LP 5 Greenway Plaza, Suite 110 Houston TX 77046 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 3 | 9314 8699 0430 0064 8899 97 | Devon Energy Production Company 333 W. Sheridan Ave. Oklahoma City OK 73102 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 4 | 9314 8699 0430 0064 8900 09 | WPX Energy Permian LLC 3500 One Williams Center Tulsa OK 74172 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 5 | 9314 8699 0430 0064 8900 16 | Ray Westall Operating, Inc. 132447 Lovington Highway Loco Hills NM 88255 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 6 | 9314 8699 0430 0064 8900 23 | Winston Resources, Inc. 1520 W. Canal St. Littleton CO 80120 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 7 | 9314 8699 0430 0064 8900 30 | McMullen Minerals LLC 2821 West 7th Street, Suite 515 Fort Worth TX 76147 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 8 | 9314 8699 0430 0064 8900 47 | Pegasus Resources LLC PO Box 470698 Fort Worth TX 76147 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 9 | 9314 8699 0430 0064 8900 54 | Terri L. Simpson 14437 Rios Canyon Rd. El Cajon CA 92021 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 10 | 9314 8699 0430 0064 8900 61 | John D. Hamiga PO Box 14144 San Francisco CA 94120 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 11 | 9314 8699 0430 0064 8900 78 | Charmar, LLC 4815 Vista Del Oso Court NE Albuquerque NM 87109 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 12 | 9314 8699 0430 0064 8900 85 | Kenneth Jay Reynolds 300 North Marienfeld, Suite 320 Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 13 | 9314 8699 0430 0064 8900 92 | Charles Randall Hicks 1500 West Third Roswell NM 88201 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 14 | 9314 8699 0430 0064 8901 08 | Vikki L. Hicks Smith 1213 Saint St. NE Albuquerque NM 87112 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 15 | 9314 8699 0430 0064 8901 15 | Tap Rock Minerals LP 602 Park Point Dr., Suite 200 Golden CO 80401 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |

Karlene Schuman
Modrall Sperling Roehl Harris & Sisk P.A.
500 Fourth Street, Suite 1000
Albuquerque NM 87102

PS Form 3877
Type of Mailing: CERTIFIED MAIL
10/24/2019



Firm Mailing Book ID: 177846

| Line | USPS Article Number | Name, Street, City, State, Zip | Postage | Service Fee | RR Fee | Rest.Del.Fee | Reference Contents |
|--------------|-----------------------------|---|---------|-------------|---------|--------------|----------------------------|
| 16 | 9314 8699 0430 0064 8901 22 | Colins & Ware, Inc. 303 W. Wall #2200 Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| 17 | 9314 8699 0430 0064 8901 39 | Curtis A. Anderson & Edna I. Anderson Joint Tenants with rights of survivorship 9314 Cherry Brook Lane Frisco TX 75083 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(64&68) Notice |
| Totals: | | | \$22.10 | \$59.50 | \$27.20 | \$0.00 | |
| Grand Total: | | | | | | \$108.80 | |

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|---|---|---|--------|

17



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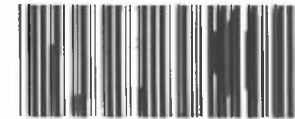
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 Firm Mail Book ID= 177846
 Generated: 11/12/2019 7:46:25 AM

| USPS Article Number | Reference | Date Created | Name 1 | Name 2 | Tenants with rights of survivorship | City | State | Zip | Mailing Status | Service Options | Mail Delivery Date |
|------------------------|-------------------|--------------------|---|--------|-------------------------------------|---------------|-------|-------|----------------|---|--------------------|
| 9314869904300064890139 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Curtis A. Anderson & Edna I. Anderson Joint | | | Frisco | TX | 75083 | Delivered | Return Receipt - Electronic, Certified Mail | 10-30-2019 |
| 9314869904300064890122 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Collins & Ware, Inc. | | | Midland | TX | 79701 | Delivered | Return Receipt - Electronic, Certified Mail | 10-28-2019 |
| 9314869904300064890115 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Tap Rock Minerals LP | | | Golden | CO | 80401 | Delivered | Return Receipt - Electronic, Certified Mail | 10-28-2019 |
| 9314869904300064890108 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Vilki L. Hicks Smith | | | Albuquerque | NM | 87112 | To be Returned | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890092 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Charles Randall Hicks | | | Roswell | NM | 88201 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890085 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Kenneth Jay Reynolds | | | Midland | TX | 79701 | Mailed | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890078 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Charmar, LLC | | | Albuquerque | NM | 87109 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890061 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | John D. Hamiga | | | San Francisco | CA | 94120 | To be Returned | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890054 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Terri L. Simpson | | | El Cajon | CA | 92021 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890047 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Pegasus Resources LLC | | | Fort Worth | TX | 76147 | Delivered | Return Receipt - Electronic, Certified Mail | 10-28-2019 |
| 9314869904300064890030 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | McMullen Minerals LLC | | | Fort Worth | TX | 76147 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890023 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Winston Resources, Inc. | | | Littleton | CO | 80120 | Mailed | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890016 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Ray Westall Operating, Inc | | | Loco Hills | NM | 88255 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064890009 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | WPX Energy Permian LLC | | | Tulsa | OK | 74172 | Delivered | Return Receipt - Electronic, Certified Mail | 10-28-2019 |
| 9314869904300064889997 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Devon Energy Production Company | | | Oklahoma City | OK | 73102 | Delivered | Return Receipt - Electronic, Certified Mail | 10-28-2019 |
| 9314869904300064889980 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Occidental Permian LP | | | Houston | TX | 77046 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064889973 | 20864, 67, 68 Val | 2019-10-24 1:27 PM | Tap Rock Resources LLC | | | Golden | CO | 80401 | Delivered | Return Receipt - Electronic, Certified Mail | 10-28-2019 |

Karlene Schuman
Modrall Sperling Roehl Harris & Sisk P.A.
500 Fourth Street, Suite 1000
Albuquerque NM 87102

PS Form 3877

Type of Mailing: CERTIFIED MAIL
10/24/2019



Firm Mailing Book ID: 177849

| Line | USPS Article Number | Name, Street, City, State, Zip | Postage | Service Fee | RR Fee | Rest.Del.Fee | Reference Contents |
|---------|-----------------------------|---|--------------|-------------|--------|--------------|----------------------------|
| 1 | 9314 8699 0430 0064 8915 18 | BTA Oil Producers LLC 104 S. Pecos St. Midland TX 79701 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(65&66) Notice |
| 2 | 9314 8699 0430 0064 8915 25 | Chevron USA, Inc. 6301 Deauville Blvd. Midland TX 79706 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(65&66) Notice |
| 3 | 9314 8699 0430 0064 8915 32 | OXY Y-1 Company 5 Greenway Plaza, Suite 110 Houston TX 77046 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(65&66) Notice |
| 4 | 9314 8699 0430 0064 8915 49 | Devon Energy Production Company 333 W. Sheridan Ave. Oklahoma City OK 73102 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(65&66) Notice |
| 5 | 9314 8699 0430 0064 8915 56 | Westall Oil & Gas, LLC PO Box 4 Loco Hills NM 88255 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(65&66) Notice |
| 6 | 9314 8699 0430 0064 8915 63 | Tap Rock Resources, LLC 602 Park Point Dr. Golden CO 80401 | \$1.30 | \$3.50 | \$1.60 | \$0.00 | 81363-205(65&66) Notice |
| Totals: | | | \$7.80 | \$21.00 | \$9.60 | \$0.00 | |
| | | | Grand Total: | | | \$38.40 | |

List Number of Pieces
Listed by Sender

Total Number of Pieces
Received at Post Office

Postmaster:
Name of receiving employee

Dated:

6

Transaction Report Details - CertifiedPro.net

Firm Mail Book ID= 177849

Generated: 11/12/2019 7:56:02 AM

| USPS Article Number | Date Created | Reference Number | Name 1 | City | State | Zip | Mailing Status | Service Options | Mail Delivery Date |
|------------------------|--------------------|------------------|---------------------------------|---------------|-------|-------|----------------|---|--------------------|
| 9314869904300064891563 | 2019-10-24 1:53 PM | 81363-205(65&66) | Tap Rock Resources, LLC | Golden | CO | 80401 | Delivered | Return Receipt - Electronic, Certified Mail | 10-30-2019 |
| 9314869904300064891556 | 2019-10-24 1:53 PM | 81363-205(65&66) | Westall Oil & Gas, LLC | Loco Hills | NM | 88255 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064891549 | 2019-10-24 1:53 PM | 81363-205(65&66) | Devon Energy Production Company | Oklahoma City | OK | 73102 | Delivered | Return Receipt - Electronic, Certified Mail | 10-28-2019 |
| 9314869904300064891532 | 2019-10-24 1:53 PM | 81363-205(65&66) | OXY Y-1 Company | Houston | TX | 77046 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064891525 | 2019-10-24 1:53 PM | 81363-205(65&66) | Chevron USA, Inc. | Midland | TX | 79706 | Undelivered | Return Receipt - Electronic, Certified Mail | |
| 9314869904300064891518 | 2019-10-24 1:53 PM | 81363-205(65&66) | BTA Oil Producers LLC | Midland | TX | 79701 | Delivered | Return Receipt - Electronic, Certified Mail | 10-29-2019 |



MODRALL SPERLING

L A W Y E R S

October 29, 2019

Deana M. Bennett
505.848.1834
dmb@modrall.com

VIA FEDEX OVERNIGHT

**Re: APPLICATION OF MARATHON OIL PERMIAN LLC FOR
COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.**

Lance D. Hough
505.848.1826
ldh@modrall.com

**CASE NOS. 20883-20885
(RIPLEY)**

**APPLICATION OF MARATHON OIL PERMIAN LLC FOR
COMPULSORY POOLING, EDDY COUNTY, NEW MEXICO.**

**CASE NOS. 20864-20868
(VALKYRIE)**

TO: AFFECTED PARTIES

This letter is to advise you that Marathon Oil Permian LLC ("Marathon") has filed the above-listed applications.

Ripley Applications:

In Case No. 20883, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the W/2 E/2 of Section 35, Township 24 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Ripley 35 SB Fed Com 6H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed.

In Case No. 20884, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 E/2 of Section 35, Township 24 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Ripley 35 SB Fed Com 11H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the

Modrall Sperling
Roehl Harris & Sisk P.A.

500 Fourth Street NW
Suite 1000
Albuquerque,
New Mexico 87102

PO Box 2168
Albuquerque,
New Mexico 87103-2168

Tel: 505.848.1800
www.modrall.com

actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed..

In Case No. 20885, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the E/2 of Section 35, Township 24 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Ripley 35 WXY Fed Com 5H, Ripley 35 WA Fed Com 4H, Ripley 35 WXY Fed Com 3H, Ripley 35 WA Fed Com 9H, Ripley 35 WD Fed Com 2H, Ripley 35 WD Fed Com 7H and Ripley 35 WD Fed Com 8H wells, to be horizontally drilled. The producing area for these wells will be unorthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the wells are drilled and when the first well is completed.

Valkyrie Applications:

In Case No. 20864, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the S/2 of Section 12, Township 23 South, Range 28 East and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 WA Federal Com 7H, Valkyrie 12 WXY Federal Com 9H, Valkyrie 12 WA Federal Com 11H, Valkyrie 12 WD Federal Com 8H, Valkyrie 12 WD Federal Com 10H, Valkyrie 12 WD Federal Com 12H, to be horizontally drilled. The producing area for these wells will be unorthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the wells are drilled and when the first well is completed.

In Case No. 20865, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 N/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 13H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and

charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed.

In Case No. 20866, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the N/2 of Section 12, Township 23 South, Range 28 East and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 WXY Federal Com 1H, Valkyrie 12 WA Federal Com 3H, Valkyrie 12 WXY Federal Com 5H, Valkyrie 12 WD Federal Com 2H, Valkyrie 12 WD Federal Com 4H, Valkyrie 12 WD Federal Com 6H wells, to be horizontally drilled. The producing area for these wells will be unorthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the wells are drilled and when the first well is completed.

In Case No. 20867, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 14H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed.

In Case No. 20868, Marathon seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 15H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed.

These cases have been set for hearing before a Division Examiner on November 14, 2019, starting at 8:15 a.m. The hearing will be held in Porter Hall in the Oil Conservation Division's Santa Fe Office located at 1220 South Saint Francis Drive, Santa Fe, New Mexico 87505. As a party who may be affected by these applications, we are notifying you of your right to appear at the hearing and participate in the cases, including the right to present evidence either in support of or in opposition to the applications. Failure to appear at the hearing may preclude you from any involvement in the cases at a later date.

You are further notified that if you desire to appear in these cases, then you are requested to file a Pre-Hearing Statement with the Division at least four business days in advance of a scheduled hearing before the Division or the Commission, but in no event later than 5:00 p.m. mountain time, on the Thursday preceding the scheduled hearing date, with a copy delivered to the undersigned.

Sincerely,

A handwritten signature in cursive script that reads "Deana M. Bennett".

Deana M. Bennett
Lance D. Hough
Attorneys for Applicant

Your package has been delivered

Tracking # 776846021896

Ship date:
Tue, 10/29/2019

Karlene Schuman
Albuquerque, NM 87102
US

Delivery date:
Wed, 10/30/2019 9:52
am

Bureau of Land Management
310 Dinosaur Trail
SANTA FE, NM 87508
US



Shipment Facts

Our records indicate that the following package has been delivered.

| | |
|----------------------------|--|
| Tracking number: | <u>776846021896</u> |
| Status: | Delivered: 10/30/2019 09:52 AM Signed for By: R.DURAN |
| Reference: | 81363.0205 DMB |
| Signed for by: | R DURAN |
| Delivery location: | SANTA FE, NM |
| Delivered to: | Shipping/Receiving |
| Service type: | FedEx Standard Overnight® |
| Packaging type: | FedEx® Envelope |
| Number of pieces: | 1 |
| Weight: | 0.50 lb. |
| Special handling/Services: | Deliver Weekday |
| Standard transit: | 10/30/2019 by 4:30 pm |

Carlsbad Current Argus.

PART OF THE USA TODAY NETWORK

Affidavit of Publication

Ad # 0003873633

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ALBUQUERQUE, NM 87103

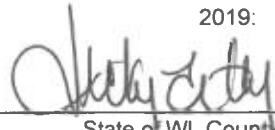
I, a legal clerk of the **Carlsbad Current Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

October 31, 2019



Legal Clerk

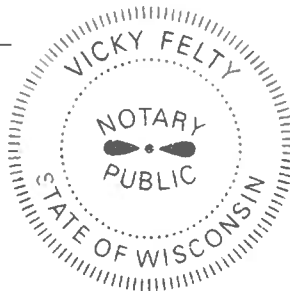
Subscribed and sworn before me this October 31,
2019:



State of WI, County of Brown
NOTARY PUBLIC



My commission expires



Ad # 0003873633
PO #: 20864, 20865, 20866, 20867, 20868
of Affidavits : 1

CASE NO. 20864: Notice to all affected parties, as well as the heirs and devisees of Bureau of Land Management, Tap Rock Resources LLC, Occidental Permian LP, Devon Energy Production Company, WPX Energy Permian LLC, Ray Westall Operating Inc., Winston Resources Inc., McMullen Minerals LLC, Pegasus Resources LLC, Terri L. Simpson, John D. Hamiga, Charmar LLC, Kenneth Jay Reynolds, Charles Randal Hicks, Vikki L. Hicks Smith, Tap Rock Minerals LP, Colins & Ware Inc., Curtis A Anderson and Edna I Anderson Joint Tenants with rights of survivorship, of Marathon Oil Permian LLC's application for compulsory pooling, Eddy County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on November 14, 2019, to consider this application. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the S/2 of Section 12, Township 23 South, Range 28 East and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 WA Federal Com 7H, Valkyrie 12 WXY Federal Com 9H, Valkyrie 12 WA Federal Com 11H, Valkyrie 12 WD Federal Com 8H, Valkyrie 12 WD Federal Com 10H, Valkyrie 12 WD Federal Com 12H, to be horizontally drilled. The producing area for these wells will be unorthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the wells are drilled and when the first well is completed. Said area is located approximately 4 miles Northeast of Loving, New Mexico.

CASE NO. 20865: Notice to all affected parties, as well as the heirs and devisees of Bureau of Land Management, BTA Oil Producers LLC, Chevron USA Inc., OXY Y-1 Company, Devon Energy Production Company, Westall Oil & Gas LLC, Tap Rock Resources LLC, of Marathon Oil Permian LLC's application for compulsory pooling, Eddy County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on November 14, 2019, to consider this application. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 N/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 13H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed. Said area is located approximately 4 miles Northeast of Loving, New Mexico.

CASE NO. 20866: Notice to all affected parties, as well as the heirs and devisees of Bureau of Land Management, BTA Oil Producers LLC, Chevron USA Inc., OXY Y-1 Company, Devon Energy Production Company, Westall Oil & Gas LLC, Tap Rock Resources LLC, of Marathon Oil Permian LLC's application for compulsory pooling, Eddy County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on November 14, 2019, to consider this application. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the N/2 of Sec-

tion 12, Township 23 South, Range 28 East and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 WXY Federal Com 1H, Valkyrie 12 WA Federal Com 3H, Valkyrie 12 WXY Federal Com 5H, Valkyrie 12 WD Federal Com 2H, Valkyrie 12 WD Federal Com 4H, Valkyrie 12 WD Federal Com 6H wells, to be horizontally drilled. The producing area for these wells will be unorthodox. Also to be considered will be the cost of drilling and completing said wells, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the wells, and a 200% charge for risk involved in drilling said wells, and allowing a one year period between when the wells are drilled and when the first well is completed. Said area is located approximately 4 miles Northeast of Loving, New Mexico.:

CASE NO. 20867 Notice to all affected parties, as well as the heirs and devisees of Bureau of Land Management, Tap Rock Resources LLC, Devon Energy Production Company, WPX Energy Permian LLC, Ray Westall Operating Inc., Winston Resources Inc., McMullen Minerals LLC, Pegasus Resources LLC, Terri L. Simpson, John D. Hamiga, Charmar LLC, Kenneth Jay Reynolds, Charles Randal Hicks, Vikki L. Hicks Smith, Tap Rock Minerals LP, Colins & Ware Inc., Curtis A Anderson and Edna I Anderson Joint Tenants with rights of survivorship, of Marathon Oil Permian LLC's application for compulsory pooling, Eddy County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on November 14, 2019, to consider this application. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the N/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 14H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed. Said area is located approximately 4 miles Northeast of Loving, New Mexico.

CASE NO. 20868: Notice to all affected parties, as well as the heirs and devisees of Bureau of Land Management, Tap Rock Resources LLC, Occidental Permian LP, Devon Energy Production Company, WPX Energy Permian LLC, Ray Westall Operating Inc., Winston Resources Inc., McMullen Minerals LLC, Pegasus Resources LLC, Terri L. Simpson, John D. Hamiga, Charmar LLC, Kenneth Jay Reynolds, Charles Randal Hicks, Vikki L. Hicks Smith, Tap Rock Minerals LP, Colins & Ware Inc., Curtis A Anderson and Edna I Anderson Joint Tenants with rights of survivorship, of Marathon Oil Permian LLC's application for compulsory pooling, Eddy County, New Mexico. The State of New Mexico, through its Oil Conservation Division, hereby gives notice that the Division will conduct a public hearing at 8:15 a.m. on November 14, 2019, to consider this application. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the S/2 S/2 of Section 12 of Township 23 South, Range 28 East; and Section 7 of Township 23 South, Range 29 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Valkyrie 12 SB Federal Com 15H well, to be horizontally drilled. The producing area for this well will be orthodox. Also to be considered will be the cost of drilling and completing said well, the allocation of these costs as well as

the actual operating costs and charges for supervision, designation of Marathon as operator of the well, and a 200% charge for risk involved in drilling said well, and allowing a one year period between when the well is drilled and when the well is completed. Said area is located approximately 4 miles Northeast of Loving, New Mexico.

October 31, 2019

**STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION**

**APPLICATION OF MARATHON OIL PERMIAN LLC FOR COMPUSLORY
POOLING, EDDY COUNTY, NEW MEXICO.**

**CASE NOS. 20867 and 20868
(Valkyrie Bone Spring)**

AFFIDAVIT

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

Rebecca Horne, being duly sworn, deposes and states:

1. I am over the age of 18, I am a geologist for Marathon Oil Permian LLC, and have personal knowledge of the matters stated herein. I have previously testified before the Oil Conservation Division ("Division") and my credentials as an expert petroleum geologist were accepted by the Division as a matter of record.

2. My area of responsibility at Marathon includes the area of Eddy County in New Mexico.

3. I am familiar with the application filed by Marathon in this case.

4. **Exhibit 8** is a locator map showing the approximate location of the proposed wells in relation to the Capitan Reef.

5. **Exhibit 9** is a wellbore schematic showing the Valkyrie development plan, including the S/2 wells, which are the subject of these applications and Case No. 20864, and the N/2 wells, which are the subject of Case Nos. 20865 and 20866.



6. The exhibits behind **Tab 10** are the geology study I prepared for the Valkyrie 12 SB Federal Com 14H and Valkyrie 12 SB Federal Com 15H, which are Bone Spring wells.

7. **Exhibit 10-A** is structure map of the base of the Second Bone Spring. The proposed project area is identified by a black-dashed box, and the proposed wells are identified by blue lines. The contour interval used this exhibit is 25 feet. This exhibit shows that the structure dips to the east.

8. **Exhibit 10-B** identifies three wells in the vicinity of the proposed Second Bone Spring wells, shown by a line of cross-section running from A to A'.

9. **Exhibit 10-C** is a stratigraphic cross section hung on the base of the Second Bone Spring Sand. The well logs on the cross-section give a representative sample of the Second Bone Spring Sand formation in the area. The target zone is identified by the words "Producing Zone" and the shaded area across the cross section, along with a red arrow.

10. In my opinion, the gross interval thickness is relatively consistent from west to east

11. **Exhibit 10-D** is a Gross Interval Isochore of the Second Bone Spring Sand. The Second Bone Spring Sand is relatively consistent from west to east.

12. I conclude from the maps that:

- a. The horizontal spacing units are justified from a geologic standpoint.
- b. There are no structural impediments or faulting that will interfere with horizontal development.
- c. Each quarter quarter section in each of the proposed units will contribute more or less equally to production.

13. **Exhibit 11** provides an overview of the stress orientation in the area based on the 2018 Snee-Zoback paper.

14. The preferred well orientation in this area is either north/south or east/west. This is because the S_{Hmax} is at approximately 45 degrees in mid-Eddy County. Marathon is proposing east/west orientation to maximize the lateral length given Marathon's acreage.

15. Exhibits 8-11 were prepared by my or under my supervision or compiled from company business records.

16. In my opinion, the granting of Marathon's application is in the interests of conservation and the prevention of waste.

Rebecca C Horne
Rebecca Horne

SUBSCRIBED AND SWORN to before me this 13 day of Nov, 2019 by Rebecca Horne, on behalf of Marathon Oil Permian LLC.

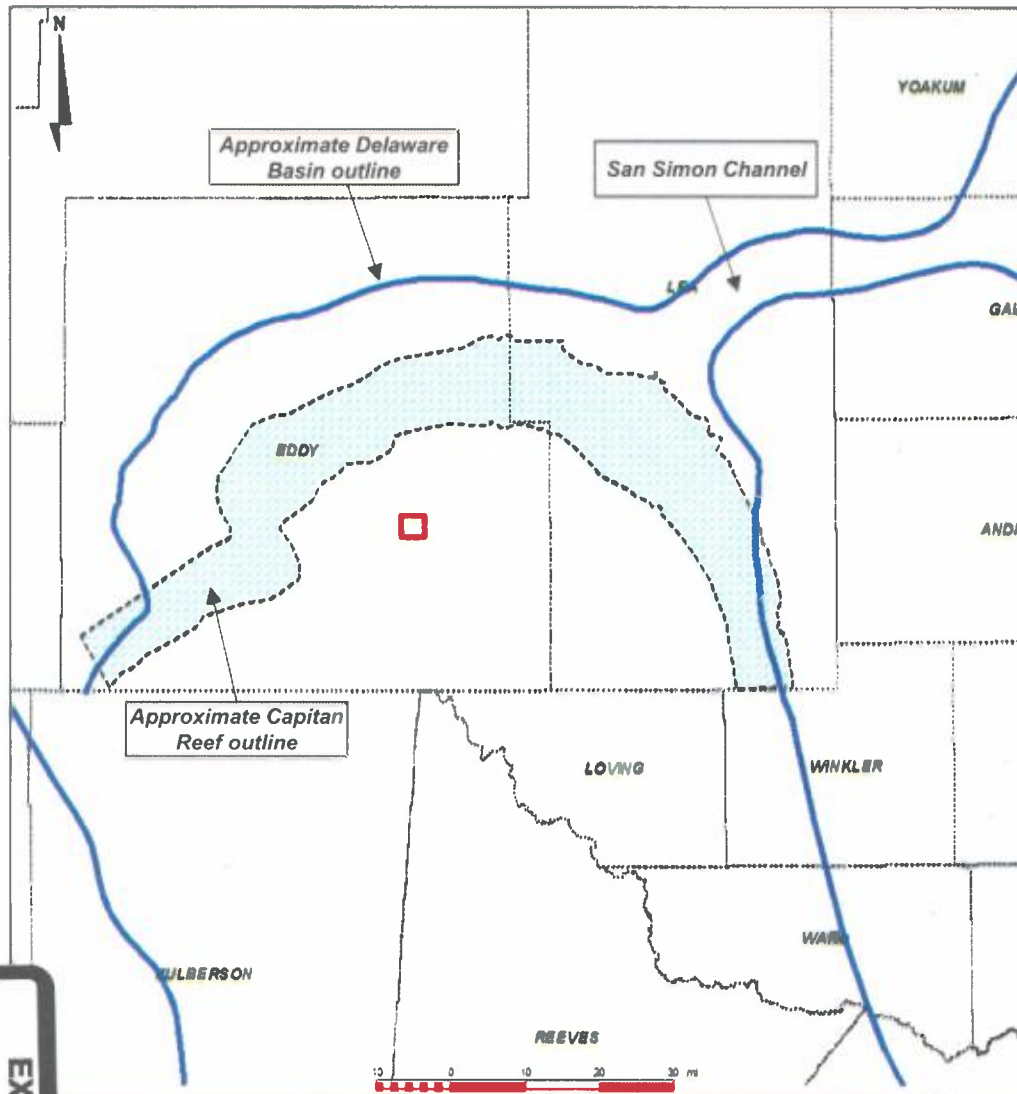
Karlene Schuman
Notary Public

My commission expires: 02-27-21



Valkyrie 12 Federal Com Unit

Locator Map

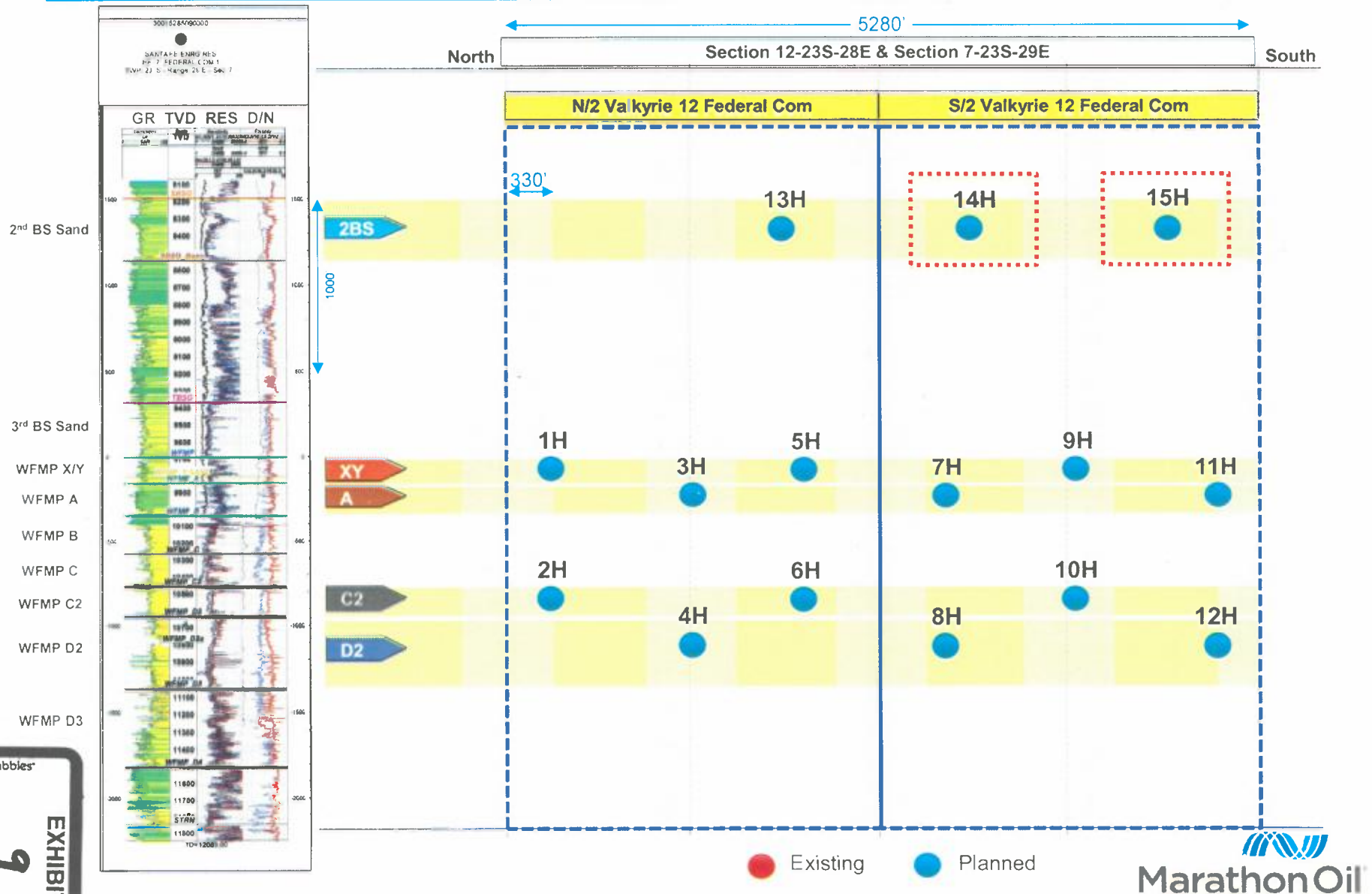


- Approximate location of proposed Valkyrie 12 Federal Com well locations shown with red box
- Located basinward of the Capitan Reef
- Mid Eddy county



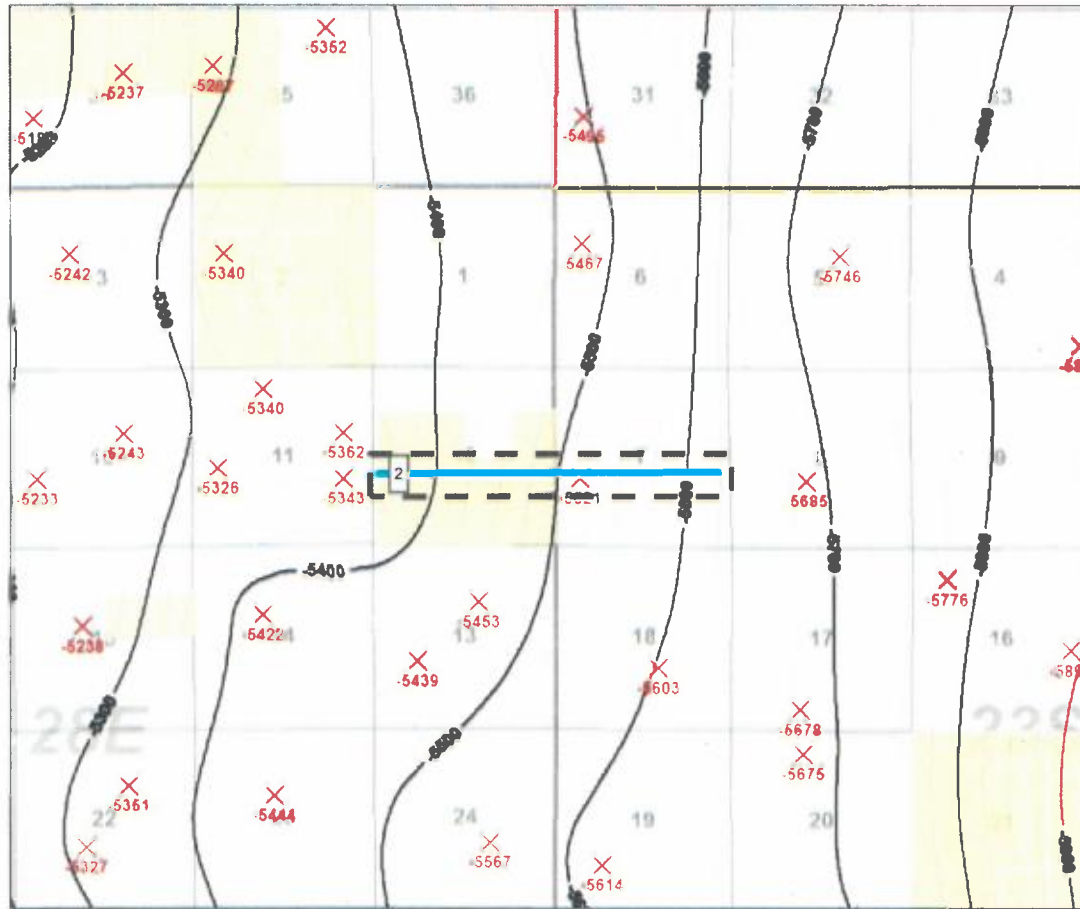
Valkyrie 12 Federal Com Unit

Wellbore Schematic








Valkyrie 12 Federal Com Unit

Structure Map – Base of Second Bone Spring Sand (TVDSS)



Map Legend

-  MRO Acreage
-  Project Area
-  SBSG
-  MRO – Horizontal Location
-  Valkyrie 12 SB Federal Com 14H

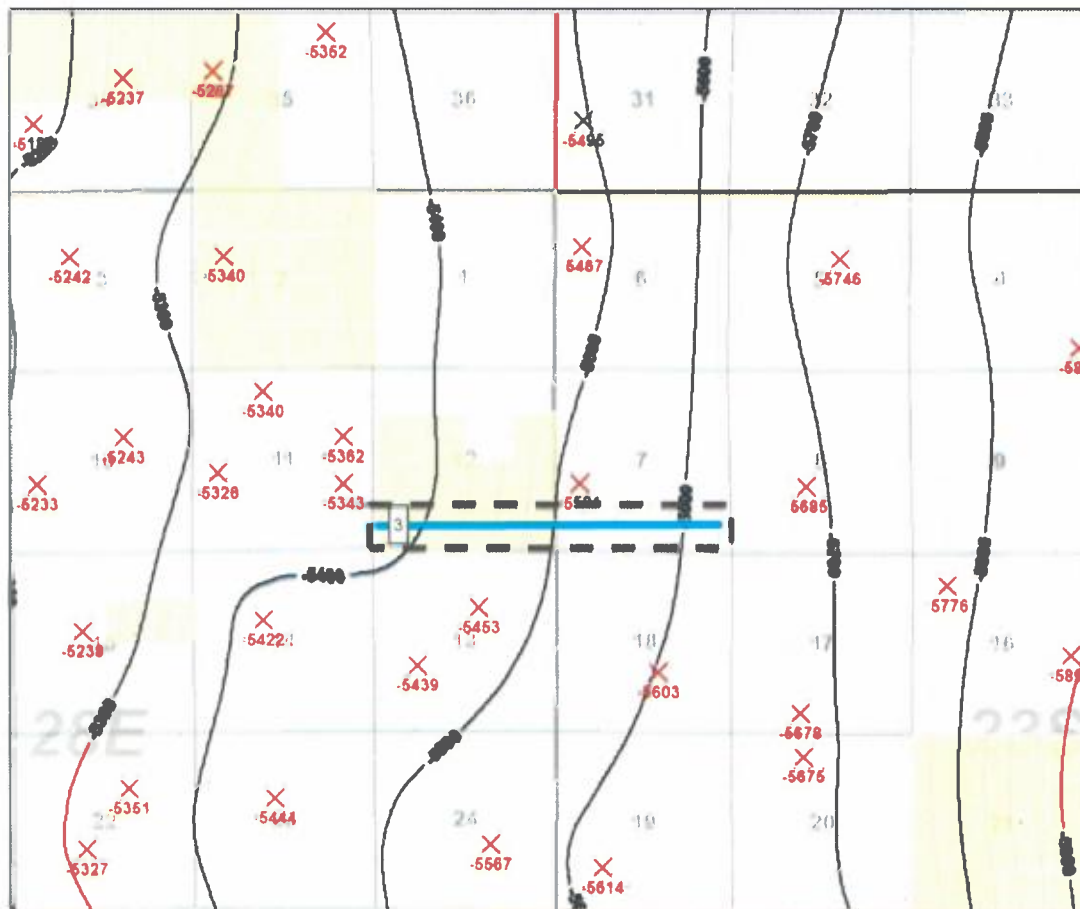
C.I. = 25'

1 mile



Valkyrie 12 Federal Com Unit

Structure Map – Base of Second Bone Spring Sand (TVDSS)

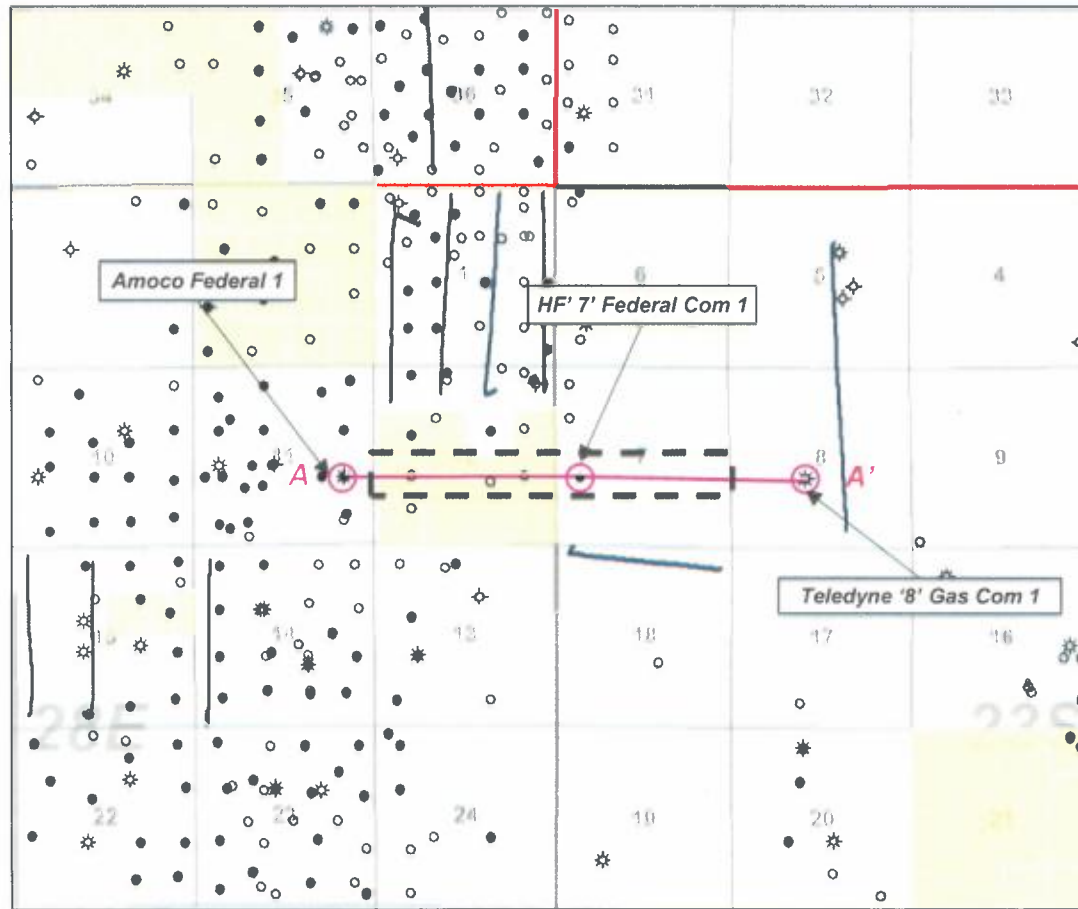


Map Legend

- MRO Acreage
- Project Area
- SBSG
- MRO – Horizontal Location
- 3 Valkyrie 12 SB Federal Com 15H

Valkyrie 12 Federal Com Unit

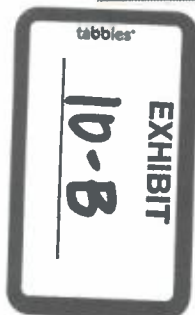
Reference Map for Cross Section – Bone Spring Wells



Map Legend

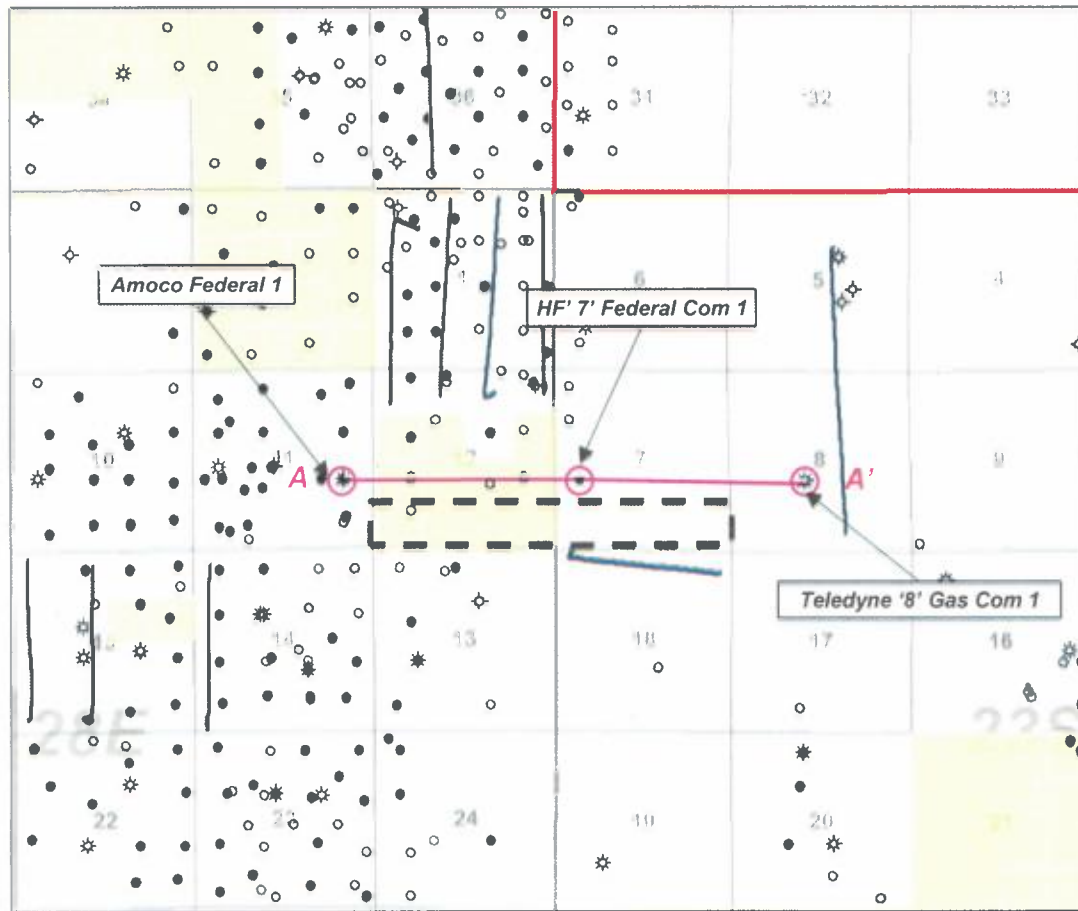


1 mile



Valkyrie 12 Federal Com Unit

Reference Map for Cross Section – Bone Spring Wells



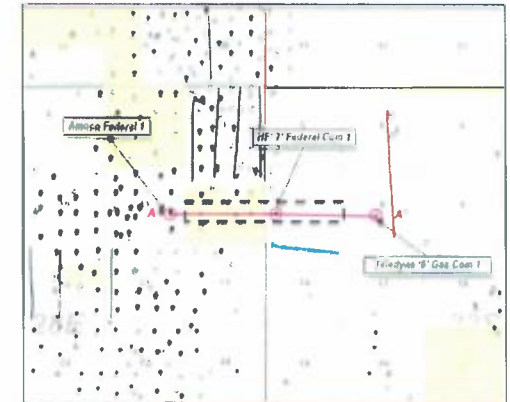
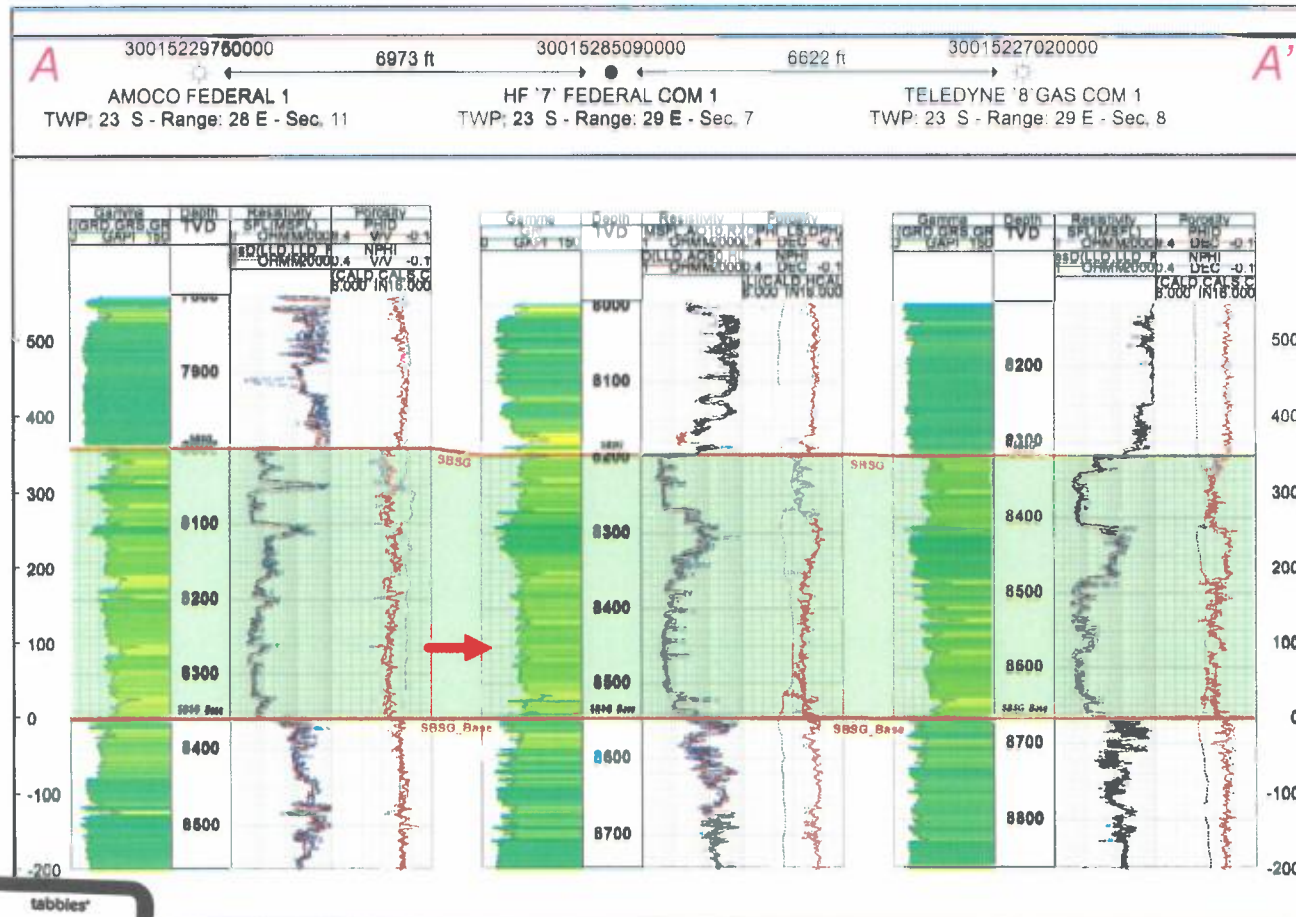
Map Legend



1 mile

Valkyrie 12 Federal Com Unit

Stratigraphic Cross Section (Base Second Bone Spring Sand Datum)



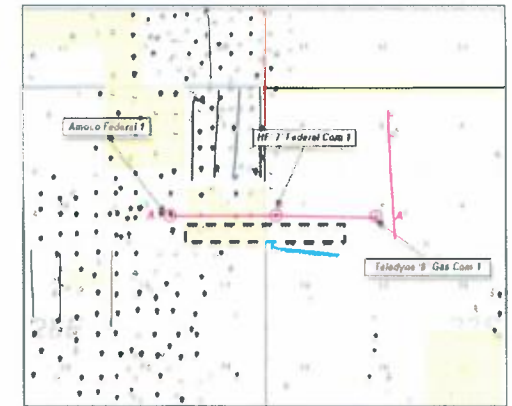
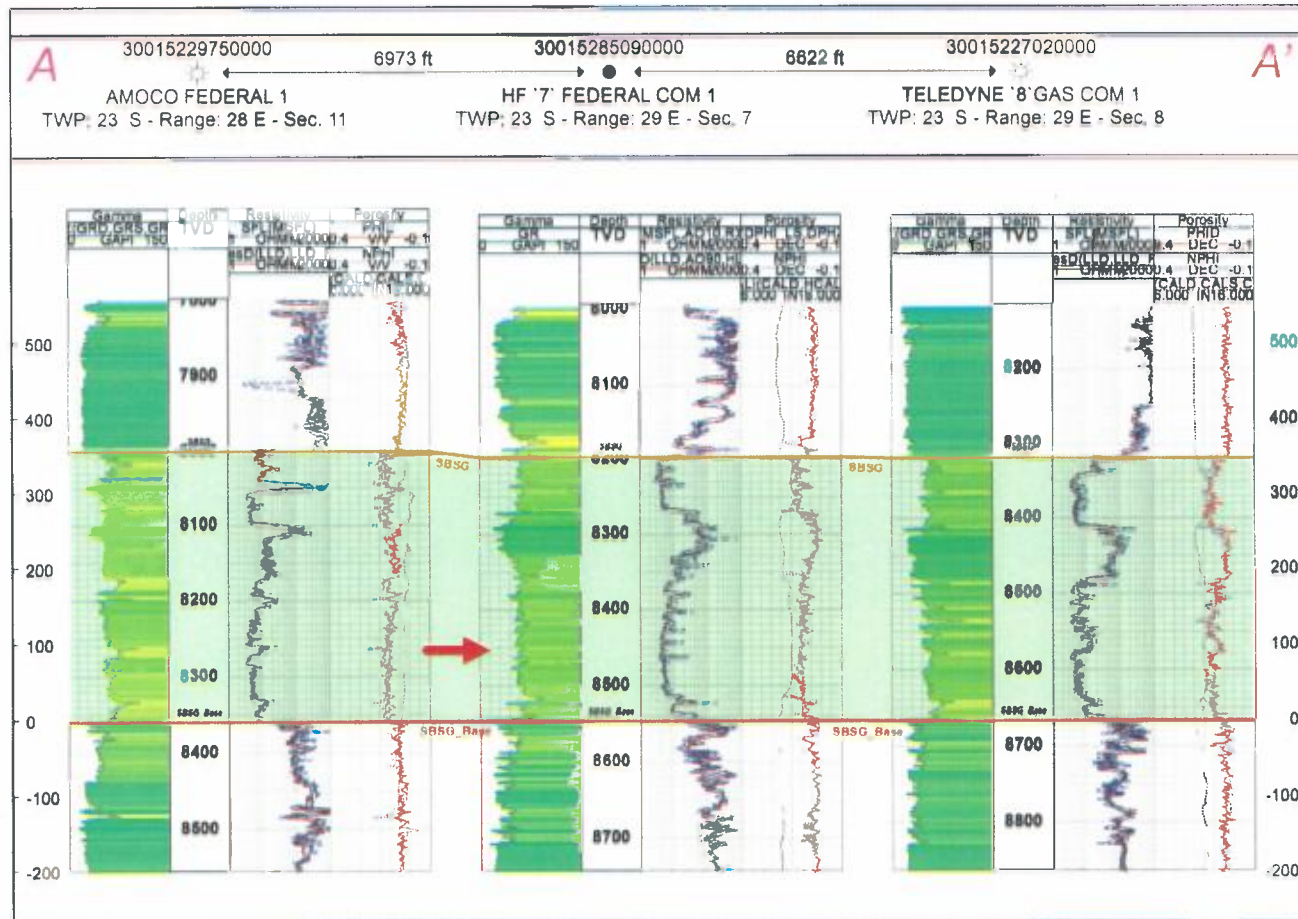
Gross interval thickness
relatively consistent
from west to east

**Producing Zone – Second
Bone Spring Sand**

EXHIBIT
10-C

Valkyrie 12 Federal Com Unit

Stratigraphic Cross Section (Base Second Bone Spring Sand Datum)

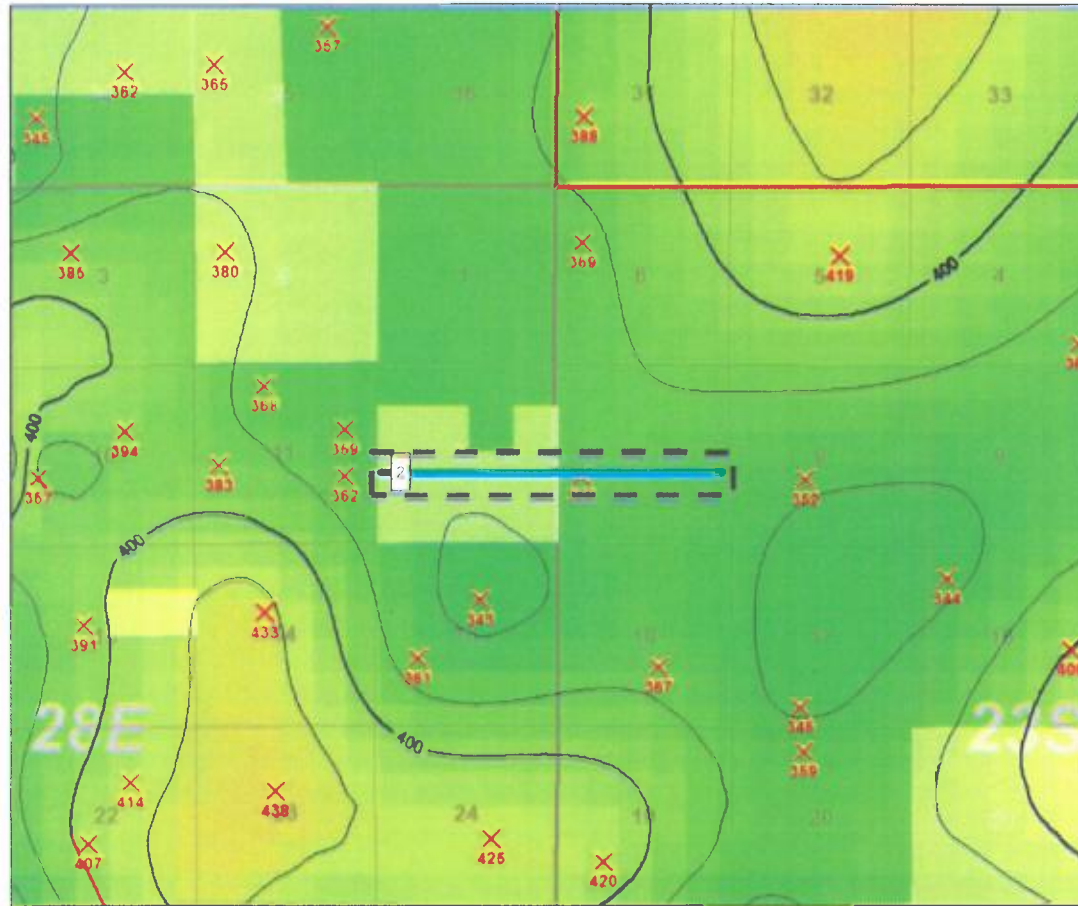


Gross interval thickness
relatively consistent
from west to east






**Producing Zone – Second
Bone Spring Sand**

Valkyrie 12 Federal Com Unit

Gross Interval Isochore – Second Bone Spring Sand



Map Legend

-  MRO Acreage
-  Project Area
-  SBSG
-  MRO – Horizontal Location
-  2 Valkyrie 12 SB Federal Com 14H

C.I. = 25'

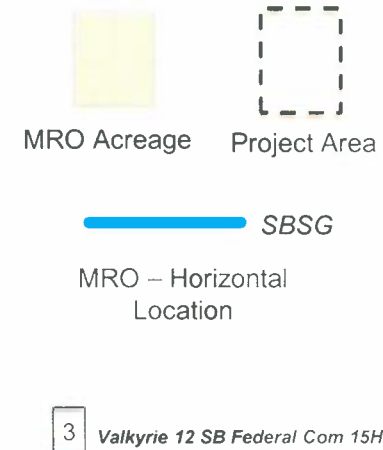
1 mile

Valkyrie 12 Federal Com Unit

Gross Interval Isochore – Second Bone Spring Sand



Map Legend



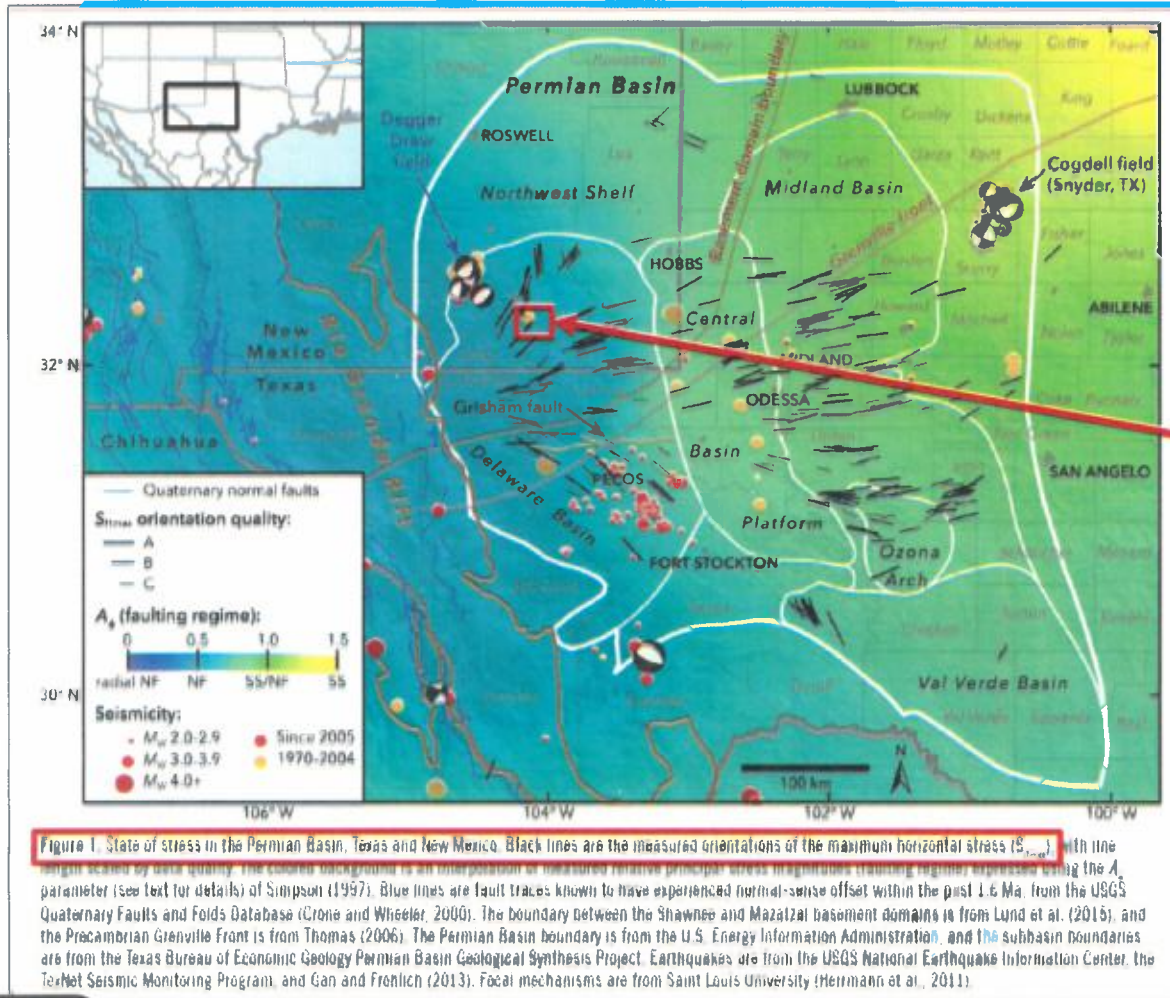
C.I. = 25'

1 mile

707

Valkyrie 12 Federal Com Unit

Preferred Well Orientation - SHmax



Preferred well orientation E/W to maximize lateral length with respect to Marathon's acreage.

As outlined in Snee & Zoback (2018), SH_{max} is at approximately 45 degrees in mid Eddy county. Therefore, hydraulic fractures will propagate out at ~45 degrees. Production is expected to be the same for wells oriented either N/S or E/W.

Source:

Snee, J.L. & M.D. Zoback, 2018, State of stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity: The Leading Edge, 810-819, <https://doi.org/10.1190/tle37020810.1>.