

**Before the Oil Conservation Division  
Examiner Hearing May 2, 2019**

**Case No. 20466**

*Achilles 8 WXY Fed Com 1H, Achilles 8 WA Fed Com 3H, Achilles 8 WXY Fed  
Com 5H, Achilles 8 WA Fed Com 7H, Achilles 8 WD Fed Com 2H, Achilles 8 WD  
Fed Com 4H, Achilles 8 WD Fed Com 8H.*



# **Exhibit A**

# **Exhibit 1**

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

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

APR 03 2019 AM 09:38

CASE NO. 20466

**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 Wolfcamp horizontal spacing unit underlying the E/2 of Section 5, Township 23 South, Range 28 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.

Marathon seeks to dedicate the E/2 of Section 5, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico to form a 320-acre, more or less, spacing unit.

2. Marathon plans to drill the **Achilles 8 WXY FC 1H; Achilles 8 WA FC 3H; Achilles 8 WXY FC 5H; Achilles 8 WA FC 7H; Achilles 8 WD FC 2H; Achilles 8 WD FC 4H; Achilles 8 WD FC 8H** wells to a depth sufficient to test the Wolfcamp formation. These wells will be horizontally drilled.

3. These wells will be located within the Purple Sage Wolfcamp Gas Pool, pool code 98220.





4. These wells do not comply with the Division's setback requirements for this pool. Marathon will apply for administrative approval of the non-standard well locations separately.

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

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

7. Marathon further requests that it be allowed one (1) year between the time the wells are drilled and completion of the first 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 May 2, 2019, and after notice and hearing as required by law, the Division enter its order:

A. Pooling all mineral interests in the Wolfcamp formation underlying a horizontal spacing unit within the E/2 of Section 5, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico;

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

C. Authorizing Marathon to recover its costs of drilling, equipping and completing these wells;

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 wells in the event a working interest owner elects not to participate in the wells.

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

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

By: Deana M. Bennett

Deana M. Bennett  
Post Office Box 2168  
500 Fourth Street NW, Suite 1000  
Albuquerque, New Mexico 87103-2168  
Telephone: 505.848.1800  
*Attorneys for Applicant*

CASE NO. 20466: 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 Wolfcamp horizontal spacing unit underlying the E/2 of Section 5, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Achilles 8 WXY FC 1H; Achilles 8 WA FC 3H; Achilles 8 WXY FC 5H; Achilles 8 WA FC 7H; Achilles 8 WD FC 2H; Achilles 8 WD FC 4H; Achilles 8 WD FC 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. Said area is located approximately 3.5 miles North/Northwest of Loving, New Mexico.

# **Exhibit 2**

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  
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Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
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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  
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code 98220	<sup>3</sup> Pool Name PURPLE SAGE; WOLFCAMP (GAS)
<sup>4</sup> Property Code	<sup>5</sup> Property Name ACHILLES 8 WXY FED COM	<sup>6</sup> Well Number 1H
<sup>7</sup> OGRID No. 372098	<sup>8</sup> Operator Name MARATHON OIL PERMIAN LLC	<sup>9</sup> Elevation 3021'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	5	23S	28E		905	SOUTH	1160	EAST	EDDY

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	5	23S	28E		100	NORTH	330	EAST	EDDY

<sup>12</sup> Dedicated Acres 320.09	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p><b>17 OPERATOR CERTIFICATION</b></p> <p>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><b>18 SURVEYOR CERTIFICATION</b></p> <p>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 _____</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>Certificate Number _____</p>
	<p><b>PRELIMINARY</b></p> <p>THIS DOCUMENT IS NOT TO BE USED FOR CONVEYANCE, BIDDING, RECORDATION, SALE OR THE BASIS FOR THE ISSUANCE OF A PERMIT.</p>
	<p><b>EXHIBIT</b></p> <p>2</p>

SHEET 1 OF 1  
JOB No. R3981\_001\_A  
REV 0 JCS 4/26/2019



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<sup>4</sup> Property Code	<sup>5</sup> Property Name ACHILLES 8 WD FED COM	<sup>6</sup> Well Number 2H
<sup>7</sup> OGRID No. 372098	<sup>8</sup> Operator Name MARATHON OIL PERMIAN LLC	<sup>9</sup> Elevation 3021'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	5	23S	28E		705	SOUTH	1160	EAST	EDDY

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	5	23S	28E		100	NORTH	330	EAST	EDDY

<sup>12</sup> Dedicated Acres 320.09	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p><b>CORNER COORDINATES</b> NAD 83, SPCS NM EAST</p> <p>A - X: 610558.92' / Y: 488170.84' B - X: 613253.53' / Y: 488203.58' C - X: 613144.35' / Y: 482918.10' D - X: 610491.24' / Y: 482896.00'</p>		<p><b>CORNER COORDINATES</b> NAD 27, SPCS NM EAST</p> <p>A - X: 569376.69' / Y: 488111.32' B - X: 572071.26' / Y: 488144.03' C - X: 571961.95' / Y: 482858.69' D - X: 569308.88' / Y: 482836.62'</p>	
<p>SECTION 32</p> <p>LAST TAKE/ BHL</p> <p>SECTION 5</p> <p>SHL</p> <p>705'</p> <p>SECTION 8</p> <p>KOP/ FIRST TAKE</p> <p>100'</p> <p>100'</p>		<p>SECTION 33</p> <p>SECTION 4</p> <p>LAST TAKE POINT/BOTTOM HOLE LOCATION</p> <p>100' FNL 330' FEL, SECTION 5</p> <p>NAD 83, SPCS NM EAST</p> <p>X: 612921.31' / Y: 488099.54'</p> <p>LAT: 32.34164403N / LON: 104.10154561W</p> <p>NAD 27, SPCS NM EAST</p> <p>X: 571739.05' / Y: 488039.99'</p> <p>LAT: 32.34152387N / LON: 104.10104826W</p>	
<p>SECTION 5</p> <p>SECTION 4</p> <p>1160'</p> <p>330'</p> <p>330'</p>		<p>FIRST TAKE POINT</p> <p>100' FSL 330' FEL, SECTION 5</p> <p>NAD 83, SPCS NM EAST</p> <p>X: 612816.28' / Y: 483015.37'</p> <p>LAT: 32.32766912N / LON: 104.10192124W</p> <p>NAD 27, SPCS NM EAST</p> <p>X: 571633.90' / Y: 482955.96'</p> <p>LAT: 32.32754887N / LON: 104.10142436W</p>	
<p>SECTION 9</p> <p>1160'</p> <p>330'</p> <p>330'</p>		<p>KICK OFF POINT</p> <p>100' FSL 330' FEL, SECTION 5</p> <p>NAD 83, SPCS NM EAST</p> <p>X: 612816.28' / Y: 483015.37'</p> <p>LAT: 32.32766912N / LON: 104.10192124W</p> <p>NAD 27, SPCS NM EAST</p> <p>X: 571633.90' / Y: 482955.96'</p> <p>LAT: 32.32754887N / LON: 104.10142436W</p>	
<p>SECTION 9</p> <p>1160'</p> <p>330'</p> <p>330'</p>		<p>SURFACE HOLE LOCATION</p> <p>705' FSL 1160' FEL, SECTION 5</p> <p>NAD 83, SPCS NM EAST</p> <p>X: 611998.47' / Y: 483613.58'</p> <p>LAT: 32.32931833N / LON: 104.10456477W</p> <p>NAD 27, SPCS NM EAST</p> <p>X: 570816.11' / Y: 483554.16'</p> <p>LAT: 32.32919812N / LON: 104.10406774W</p>	

**<sup>17</sup> 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 \_\_\_\_\_

**<sup>18</sup> 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 and Seal of Professional Surveyor: \_\_\_\_\_

**PRELIMINARY**

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Certificate Number \_\_\_\_\_



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<sup>4</sup> Property Code		<sup>5</sup> Property Name ACHILLES 8 WA FED COM						<sup>6</sup> Well Number 3H	
<sup>7</sup> OGRID No. 372098		<sup>8</sup> Operator Name MARATHON OIL PERMIAN LLC						<sup>9</sup> Elevation 3021'	
<sup>10</sup> Surface Location									
UL or lot no. P	Section 5	Township 23S	Range 28E	Lot Idn	Feet from the 905	North/South line SOUTH	Feet from the 1190	East/West line EAST	County EDDY
<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no. A	Section 5	Township 23S	Range 28E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 1016	East/West line EAST	County EDDY
<sup>12</sup> Dedicated Acres 320.09		<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.			

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

	<p><b>CORNER COORDINATES</b> NAD 83, SPCS NM EAST A - X: 610558.92' / Y: 488170.84' B - X: 613253.53' / Y: 488203.58' C - X: 613144.35' / Y: 482918.10' D - X: 610491.24' / Y: 482896.00'</p>	<p><b>CORNER COORDINATES</b> NAD 27, SPCS NM EAST A - X: 569376.69' / Y: 488111.32' B - X: 572071.26' / Y: 488144.03' C - X: 571961.95' / Y: 482858.69' D - X: 569308.88' / Y: 482836.62'</p>	<p><b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>
	<p><b>LAST TAKE POINT/BOTTOM HOLE LOCATION</b> 100' FNL 1016' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 612234.66' / Y: 488091.19' LAT: 32.34162516N / LON: 104.10376901W NAD 27, SPCS NM EAST X: 571052.41' / Y: 488031.66' LAT: 32.34150503N / LON: 104.10327159W</p>		
	<p><b>FIRST TAKE POINT</b> 100' FSL 996' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 612149.56' / Y: 483009.82' LAT: 32.32765779N / LON: 104.10407978W NAD 27, SPCS NM EAST X: 570967.18' / Y: 482950.41' LAT: 32.32753757N / LON: 104.10358282W</p>		
	<p><b>KICK OFF POINT</b> 100' FSL 996' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 612149.56' / Y: 483009.82' LAT: 32.32765779N / LON: 104.10407978W NAD 27, SPCS NM EAST X: 570967.18' / Y: 482950.41' LAT: 32.32753757N / LON: 104.10358282W</p>		
<p><b>SURFACE HOLE LOCATION</b> 905' FSL 1190' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611972.59' / Y: 483813.37' LAT: 32.32986767N / LON: 104.10464718W NAD 27, SPCS NM EAST X: 570790.23' / Y: 483753.95' LAT: 32.32974747N / LON: 104.10415012W</p>			<p><b>18 SURVEYOR CERTIFICATION</b> 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 _____</p> <p>Signature and Seal of Professional Surveyor: _____</p> <p>Certificate Number _____</p>

SHEET 1 OF 1  
JOB No. R3981.001.B  
REV 0 JCS 4/26/2019



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<sup>7</sup> OGRID No. 372098	<sup>8</sup> Operator Name MARATHON OIL PERMIAN LLC	<sup>9</sup> Elevation 3021'

<sup>10</sup> Surface Location

UL or lot no. P	Section 5	Township 23S	Range 28E	Lot Idn	Feet from the 705	North/South line SOUTH	Feet from the 1190	East/West line EAST	County EDDY
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. A	Section 5	Township 23S	Range 28E	Lot Idn	Feet from the 100	North/South line NORTH	Feet from the 1246	East/West line EAST	County EDDY
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<sup>12</sup> Dedicated Acres 320.09	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>SHEET 1 OF 1 JOB No. R3981_002_B REV 0 JCS 4/26/2019</p>	<b>CORNER COORDINATES NAD 83, SPCS NM EAST</b> A - X: 610558.92' / Y: 488170.84' B - X: 613253.53' / Y: 488203.58' C - X: 613144.35' / Y: 482918.10' D - X: 610491.24' / Y: 482896.00'	<b>CORNER COORDINATES NAD 27, SPCS NM EAST</b> A - X: 569376.69' / Y: 488111.32' B - X: 572071.26' / Y: 488144.03' C - X: 571961.95' / Y: 482658.69' D - X: 569308.88' / Y: 482836.62'	<b><sup>17</sup> OPERATOR CERTIFICATION</b> <i>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.</i>  Signature _____ Date _____  Printed Name _____  E-mail Address _____	
	<b>LAST TAKE POINT/BOTTOM HOLE LOCATION</b> 100' FNL 1246' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 612004.58' / Y: 488088.40' LAT: 32.34161883N / LON: 104.10451402W NAD 27, SPCS NM EAST X: 570822.33' / Y: 488028.87' LAT: 32.34149871N / LON: 104.10401657W			<b><sup>18</sup> SURVEYOR CERTIFICATION</b> <i>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.</i>  Date of Survey _____ Signature of Licensed Professional Surveyor _____ <b>PRELIMINARY</b> THIS DOCUMENT IS NOT TO BE USED FOR CONVEYANCE, SALE OR THE BASIS FOR THE ISSUANCE OF A PERMIT Certificate Number _____
	<b>FIRST TAKE POINT</b> 100' FSL 1226' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611919.49' / Y: 483007.90' LAT: 32.32765387N / LON: 104.10482462W NAD 27, SPCS NM EAST X: 570737.12' / Y: 482948.50' LAT: 32.32753366N / LON: 104.10432763W			
	<b>KICK OFF POINT</b> 100' FSL 1226' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611919.49' / Y: 483007.90' LAT: 32.32765387N / LON: 104.10482462W NAD 27, SPCS NM EAST X: 570737.12' / Y: 482948.50' LAT: 32.32753366N / LON: 104.10432763W			
	<b>SURFACE HOLE LOCATION</b> 705' FSL 1190' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611968.45' / Y: 483613.33' LAT: 32.32931781N / LON: 104.10466194W NAD 27, SPCS NM EAST X: 570786.09' / Y: 483553.91' LAT: 32.32919761N / LON: 104.10416490W			



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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	5	23S	28E		100	NORTH	1676	EAST	EDDY

<sup>12</sup> Dedicated Acres 320.09	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p><b>LAST TAKE/ BHL</b></p> <p>1017'</p> <p>100'</p> <p>SECTION 32</p> <p>SECTION 33</p> <p>SECTION 4</p> <p>SECTION 5</p> <p>SECTION 8</p> <p>SECTION 9</p> <p>KOP/ FIRST TAKE</p> <p>997'</p> <p>997'</p> <p>100'</p> <p>100'</p> <p>905'</p> <p>1220'</p> <p>1656'</p> <p>1656'</p> <p>SHEET 1 OF 1 JOB No. R3981_001_C REV 0 JCS 4/26/2019</p>	<p><b>CORNER COORDINATES</b> NAD 83, SPCS NM EAST A - X: 610558.92' / Y: 488170.84' B - X: 613253.53' / Y: 488203.58' C - X: 613144.35' / Y: 482918.10' D - X: 610491.24' / Y: 482896.00'</p>	<p><b>CORNER COORDINATES</b> NAD 27, SPCS NM EAST A - X: 569376.69' / Y: 488111.32' B - X: 572071.26' / Y: 488144.03' C - X: 571961.95' / Y: 482858.69' D - X: 569308.88' / Y: 482836.62'</p>	<p><b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>
	<p><b>LAST TAKE POINT/BOTTOM HOLE LOCATION</b> 100' FSL 1676' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611574.44' / Y: 488083.17' LAT: 32.34160698N / LON: 104.10590686W NAD 27, SPCS NM EAST X: 570392.19' / Y: 488023.65' LAT: 32.34148688N / LON: 104.10540936W</p>		
	<p><b>FIRST TAKE POINT</b> 100' FSL 1656' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611489.37' / Y: 483004.32' LAT: 32.32764654N / LON: 104.10621715W NAD 27, SPCS NM EAST X: 570307.01' / Y: 482944.92' LAT: 32.32752635N / LON: 104.10572011W</p>		
	<p><b>KICK OFF POINT</b> 100' FSL 1656' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611489.37' / Y: 483004.32' LAT: 32.32764654N / LON: 104.10621715W NAD 27, SPCS NM EAST X: 570307.01' / Y: 482944.92' LAT: 32.32752635N / LON: 104.10572011W</p>		
<p><b>SURFACE HOLE LOCATION</b> 905' FSL 1220' FEL, SECTION 5 NAD 83, SPCS NM EAST X: 611942.57' / Y: 483813.12' LAT: 32.32986716N / LON: 104.10474434W NAD 27, SPCS NM EAST X: 570760.22' / Y: 483753.70' LAT: 32.32974696N / LON: 104.10424728W</p>			<p><b>18 SURVEYOR CERTIFICATION</b> 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 _____</p> <p>Signature and Seal of Professional Surveyor: _____</p> <p>Certificate Number _____</p>



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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code 98220	<sup>3</sup> Pool Name PURPLE SAGE; WOLFCAMP (GAS)
<sup>4</sup> Property Code	<sup>5</sup> Property Name ACHILLES 8 WA FED COM	<sup>6</sup> Well Number 7H
<sup>7</sup> OGRID No. 372098	<sup>8</sup> Operator Name MARATHON OIL PERMIAN LLC	<sup>9</sup> Elevation 3021'

<sup>10</sup> Surface Location

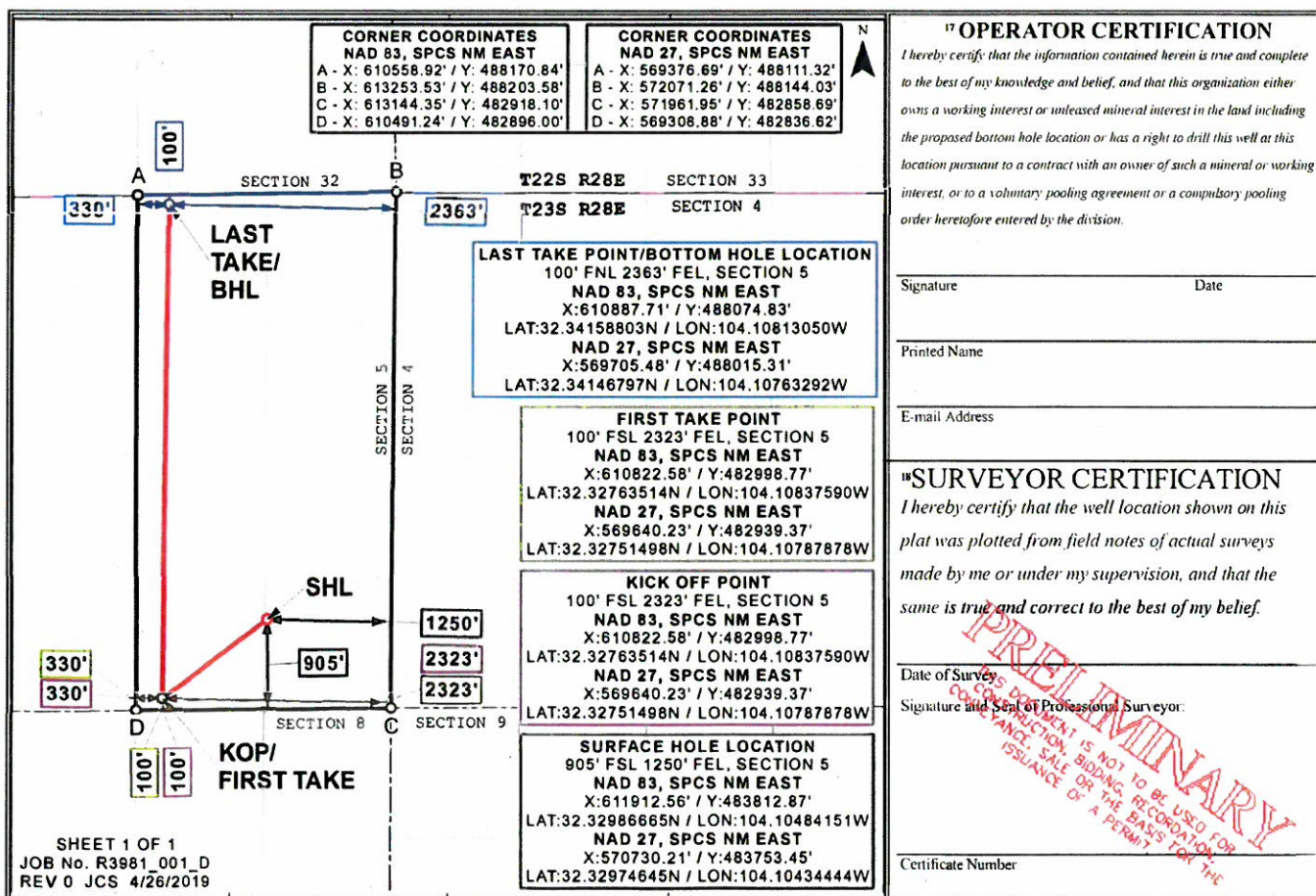
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	5	23S	28E		905	SOUTH	1250	EAST	EDDY

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	5	23S	28E		100	NORTH	2363	EAST	EDDY

<sup>12</sup> Dedicated Acres 320.09	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
---	-------------------------------	----------------------------------	-------------------------

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





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State of New Mexico  
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Form C-102  
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code 98220	<sup>3</sup> Pool Name PURPLE SAGE; WOLFCAMP (GAS)
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<sup>7</sup> OGRID No. 372098	<sup>8</sup> Operator Name MARATHON OIL PERMIAN LLC	<sup>9</sup> Elevation 3021'

<sup>10</sup> Surface Location

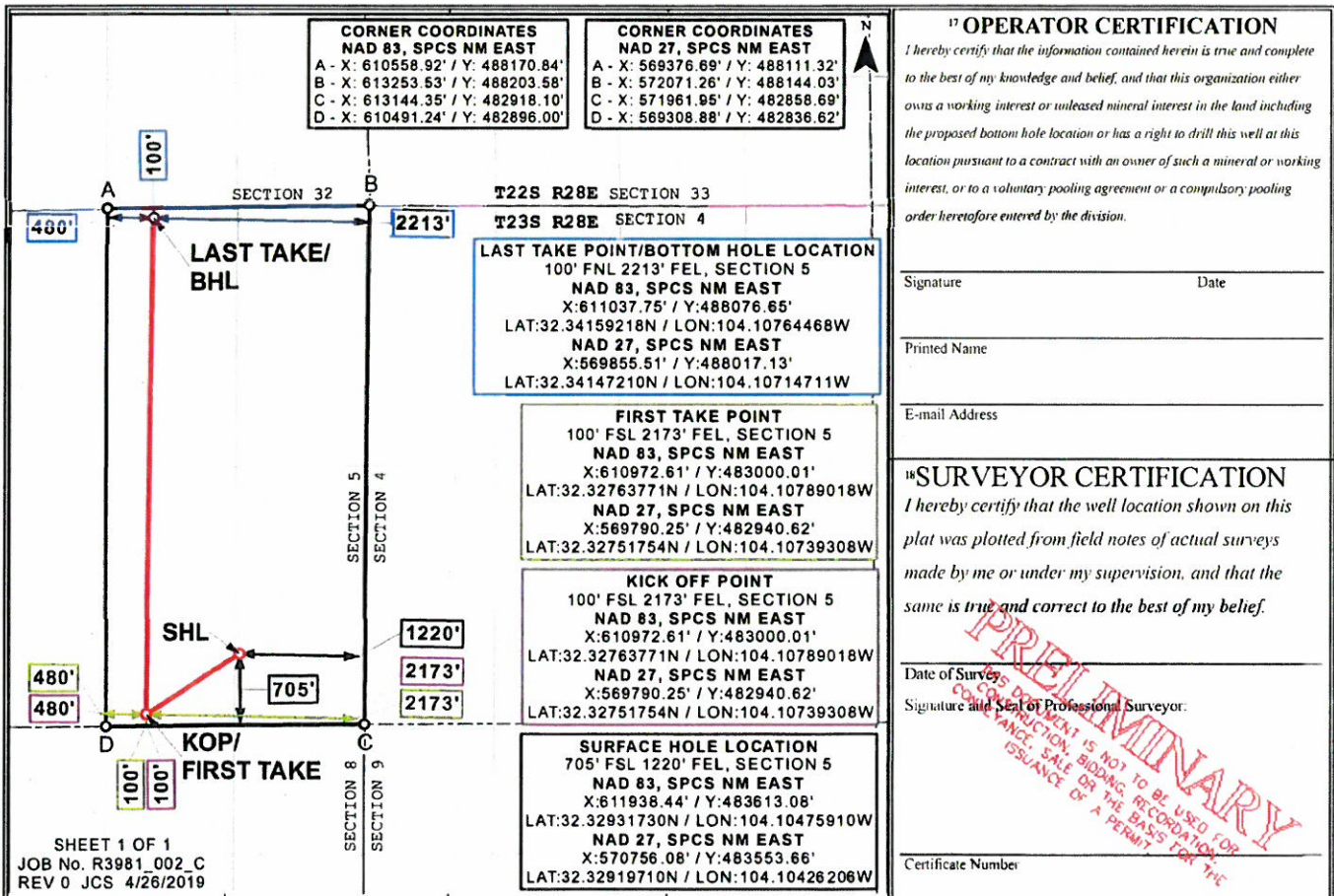
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	5	23S	28E		705	SOUTH	1220	EAST	EDDY

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	5	23S	28E		100	NORTH	2213	EAST	EDDY

<sup>12</sup> Dedicated Acres 320.09	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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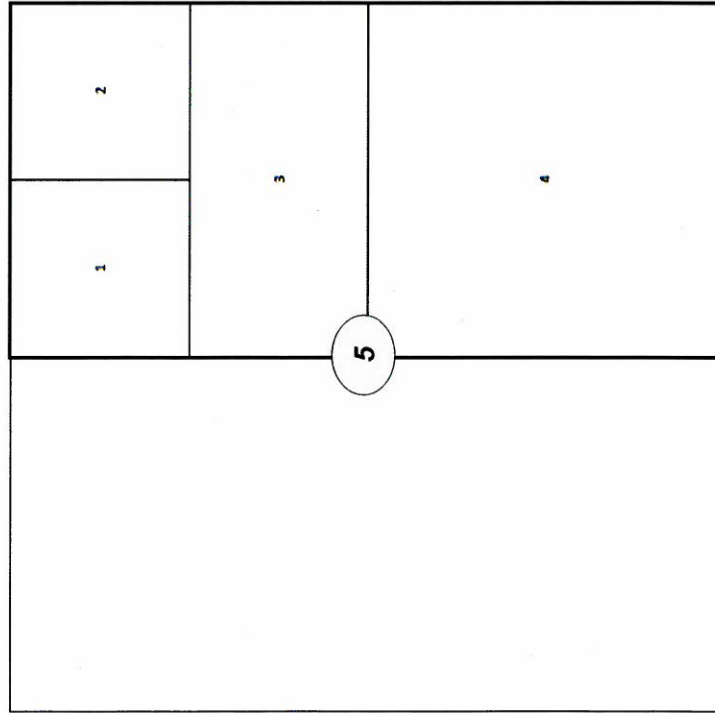
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



# **Exhibit 3**

Lease Tract Map  
 Achilles 8 WXY Fed Com 1H, Achilles 8 WA Fed Com 3H, Achilles 8 WXY Fed Com 5H, Achilles 8 WA Fed Com 7H,  
 Achilles 8 WD Fed Com 2H, Achilles 8 WD Fed Com 4H, Achilles 8 WD Fed Com 8H  
 E/2 of Section 5, T23S-R28E- 320 acres

T23S - R28E, Eddy County, New Mexico



- Tract 1: Fee Acreage
- Tract 2: BLM Lease NM 32636
- Tract 3: Fee Acreage
- Tract 4: Fee Acreage



**Summary of Interests**

**Achilles 8 WXY Fed Com 1H, Achilles 8 WA Fed Com 3H, Achilles 8 WXY Fed Com 5H, Achilles 8 WA Fed Com 7H, Achilles 8 WD Fed Com 2H, Achilles 8 WD Fed Com 4H, Achilles 8 WD Fed Com 8H**

**E/2 of Section 5, T23S-R28E—320 acres**

**Committed Working Interest:**  
Marathon Oil Permian LLC

**46.787105%**  
46.787105%

**Uncommitted Working Interest:**  
OXY USA WTP Limited Partnership  
Sisbro Oil & Gas, LLC  
Norma J. Chanley  
Roy G. Barton, Jr. and Claudia R. Barton  
Mizel Resources, A Trust  
Stanico Energy Corporation

**53.212895%**  
46.250000%  
2.695315%  
1.562500%  
0.673830%  
0.468750%





# **Exhibit 4**

Jeffrey Broussard  
Landman



Marathon Oil Permian LLC  
5555 San Felipe Street  
Houston, Texas 77056  
Telephone: 713-296-3159  
jbroussard1@marathonoil.com

February 21, 2019

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED  
7018 1130 0000 1011 0381

OXY USA WTP, LTD  
5 Greenway Plaza, Suite 110  
Houston, Texas 77046

Re: Achilles Unit 1H, 2H, 3H, 4H, 5H, 7H, 8H Well Proposals  
E/2 of Section 5, Township 23 South, Range 28 East  
Eddy County, New Mexico

Dear OXY USA WTP, LTD:

Marathon Oil Permian LLC ("Marathon") proposes the drilling of the following wells located in Section 5, 23S-28E, Eddy, New Mexico, all to be drilled from two surface pad locations.

Pad	Well Name	SHL	BHL	Proration Unit	Target TVD	Est. MD
1	Achilles 8 WXY FC 1H	1160' FEL & 905' FSL	330' FEL & 100' FNL	E/2 of Sec. 5	9,457'	14,648'
1	Achilles 8 WA FC 3H	1190' FEL & 905' FSL	990' FEL & 100' FNL	E/2 of Sec. 5	9,574'	14,729'
1	Achilles 8 WXY FC 5H	1220' FEL & 905' FSL	1640' FEL & 100' FNL	E/2 of Sec. 5	9,447'	14,609'
1	Achilles 8 WA FC 7H	1250' FEL & 905' FSL	2320' FEL & 100' FNL	E/2 of Sec. 5	9,564'	14,774'
2	Achilles 8 WD FC 2H	1160' FEL & 705' FSL	330' FEL & 100' FNL	E/2 of Sec. 5	10,038'	15,441'
2	Achilles 8 WD FC 4H	1190' FEL & 705' FSL	1254' FEL & 100' FNL	E/2 of Sec. 5	10,256'	15,621'
2	Achilles 8 WD FC 8H	1220' FEL & 705' FSL	2178' FEL & 100' FNL	E/2 of Sec. 5	10,028'	15,436'

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 E/2 of Section 5, 23S-28E, covering the depths from the top of the Wolfcamp Formation to the base of the Wolfcamp formation



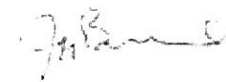
If your election is to participate in the drilling and completion of the wells, please sign and return a copy of this letter along with the enclosed AFE within thirty (30) days of receipt of this proposal.

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 March 21, 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,



Jeffrey Broussard  
Marathon Oil Permian LLC

\_\_\_\_\_ OXY USA WTP, LTD elects to participate in the drilling, completing, and equipping of the Achilles 8 WXY FC 1H.

\_\_\_\_\_ OXY USA WTP, LTD elects NOT to participate in the drilling, completing, and equipping of the Achilles 8 WXY FC 1H.

\_\_\_\_\_ OXY USA WTP, LTD elects to participate in the drilling, completing, and equipping of the Achilles 8 WD FC 2H.

\_\_\_\_\_ OXY USA WTP, LTD elects NOT to participate in the drilling, completing, and equipping of the Achilles 8 WD FC 2H.

\_\_\_\_\_ OXY USA WTP, LTD elects to participate in the drilling, completing, and equipping of the Achilles 8 WA FC 3H.

\_\_\_\_\_ OXY USA WTP, LTD elects NOT to participate in the drilling, completing, and equipping of the Achilles 8 WA FC 3H.

\_\_\_\_\_ OXY USA WTP, LTD elects to participate in the drilling, completing, and equipping of the Achilles 8 WD FC 4H.

\_\_\_\_\_ OXY USA WTP, LTD elects NOT to participate in the drilling, completing, and equipping of the Achilles 8 WD FC 4H.

\_\_\_\_\_ OXY USA WTP, LTD elects to participate in the drilling, completing, and equipping of the Achilles 8 WXY FC 5H.

\_\_\_\_\_ OXY USA WTP, LTD elects NOT to participate in the drilling, completing, and equipping of the Achilles 8 WXY FC 5H.

\_\_\_\_\_ OXY USA WTP, LTD elects to participate in the drilling, completing, and equipping of the Achilles 8 WA FC 7H.

\_\_\_\_\_ OXY USA WTP, LTD elects NOT to participate in the drilling, completing, and equipping of the Achilles 8 WA FC 7H.

\_\_\_\_\_ OXY USA WTP, LTD elects to participate in the drilling, completing, and equipping of the Achilles 8 WD FC 8H.

\_\_\_\_\_ OXY USA WTP, LTD elects NOT to participate in the drilling, completing, and equipping of the Achilles 8 WD FC 8H.

OXY USA WTP, LTD

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

# **Exhibit 5**

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

DATE 12/12/2018  
DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD  
COMPLETION PREPARED BY JOSH SHANNON  
FACILITIES PREPARED BY MATT HENSCHEN  
ARTIFICIAL LIFT PREPARED BY BILLY MOORE/MATT HI

Asset Team	PERMIAN			
Field	PURPLE SAGE;WOL	FORMATION: WOLFCAMP XY	WILDCAT	EXPLORATION
Lease/Facility	Achilles 6 WXY FC 1H		DEVELOPMENT	RECOMPLETION
Location	EDDY COUNTY		X EXPLOITATION	WORKOVER
Prospect	MALAGA			

Est Total Depth	14,648	Est Drilling Days		Est Completion Days	5.5
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LOCATION COST - INTANGIBLE

GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	37,500
7001250	Land Broker Fees and Services	33,750

TOTAL LOCATION COST - INTANGIBLE	71,250
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DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	16,000
7012050	Intermediate Casing 1	55,000
7012050	Intermediate Casing 2	231,000
7012050	Production Casing	70,000
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	534,000
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DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	32,500
7019220	Drilling Rig - day work/footage	455,650
7019040	Directional Drilling Services	149,000
7019020	Cement and Cementing Service	15,000
7019020	Cement and Cementing Service	25,000
7019020	Cement and Cementing Service	40,000
7019020	Cement and Cementing Service	55,000
7019140	Mud Fluids & Services	61,400
7012310	Solids Control equipment	31,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	54,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging-geosteering	13,000
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	18,763
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	70,100
7018150	Rig Equipment and Misc.	8,763
7001110	Telecommunications Services	5,000
7001120	Consulting Services	82,368
7001400	Safety and Environmental	28,040
7018120	Rental Buildings (trailers)	14,020
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	147,602

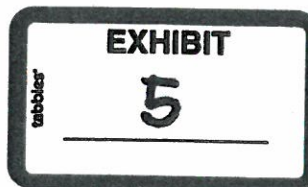
TOTAL DRILLING - INTANGIBLE	\$1,722,205
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TOTAL DRILLING COST	\$2,256,205
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COMPLETION - TANGIBLE

7012580	Tubing	-
7012040	Tubing Accessories (nipple, wireline entry)	-
7012550	Wellhead Equip	15,000
7012560	Packers - Completion Equipment	-

TOTAL COMPLETION - TANGIBLE	\$15,000
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MARATHON OIL PERMIAN LLC  
AUTHORITY FOR EXPENDITURE  
DETAIL OF ESTIMATED WELL COSTS

DATE 12/12/2018

Asset Team PERMIAN  
Field PURPLE SAGE;WOL FORMATION: WOLFCAMP XY  
Lease/Facility Achilles & WXY FC 1H

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)	210,000
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)	315,000
7019320	Fracturing Services	1,960,000
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	147,000
7016180	Freight - Truck (haul pipe; drlg & compl)	15,000
7018150	BOP Rental & Testing	-
7018150	Rental Tools and Equipment ( Incl drlg; lightplant,hydra-walk)	-
7018150	CT Downhole Rental Equipment (ie. Bit, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	90,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	150,000
7019300	Frack Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental ( w/o operator, frac tanks, lightplants)	135,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	234,800
TOTAL COMPLETION - INTANGIBLE		\$3,641,800
TOTAL COMPLETION COST		\$3,656,800

SURFACE EQUIPMENT - TANGIBLE

7012350	Misc. Piping, Fittings & Valves	85,795
7006640	Company Labor & Burden	-
7000030	Contract Labor - General	74,150
7001110	Telecommunication equip (Telemetry)	-
7012410	Line Pipe & Accessories	27,950
7012270	Miscellaneous Materials (containment system)	43,230
7008060	SCADA	-
7016180	Freight - truck	-
7001190	Contract Engineering	29,115
7012290	Metering and Instrumentation	237,080
7012290	I&E Materials	-
7012200	Gas Treating	-
7012200	Dehydration	-
7012010	Compressor	-
7012350	Power	-
7012610	Vapor Recovery Unit	-
7012440	Separator & other pressure vessels	67,350
7012500	Tanks	193,450
7012100	Heater Treater	17,560
7012640	Flare & Accessories	11,645
7000010	Electrical Labor	29,115
7000010	Mechanical Labor	-
7012480	Rod Pumping unit & Pad	-
7012180	Pumping Unit Engine	-
7012350	Electrical Power (electrical cooperative construction costs)	23,290
TOTAL SURFACE EQUIPMENT - TANGIBLE		\$839,730
TOTAL SURFACE EQUIPMENT COST		\$ 839,730

ARTIFICIAL LIFT

7012580	Tubing	50,000
7012040	Tubing Accessories (nipple, wireline entry)	5,000
7012550	Wellhead Equip	5,000
7012560	Packers - Completion Equipment	5,000
7006640	Company Labor	6,000
7012180	Gas Lift Equipment	23,000
7012480	Rod Pumping, Sucker Rods & Rod Pump	-
7012140	Elect Sub Pumps (ESP)	-
7019350	Well Services-Well/Wellhead Services	42,500
7012270	Materials & Supplies-Tangible	25,000
7012550	Surface Wellhead Equipment	3,000
7012390	Pig Launchers/Receivers & Rel Equip	-
7011010	Contingency & Taxes	5,000
TOTAL ARTIFICIAL LIFT		169,500
TOTAL ARTIFICIAL LIFT COST		\$ 169,500

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL LOCATION COST	\$ 71,250
TOTAL DRILLING COST	\$ 2,256,205
TOTAL COMPLETIONS COST	\$ 3,656,800
TOTAL SURFACE EQUIPMENT COST	\$ 839,730
TOTAL ARTIFICIAL LIFT COST	\$ 169,500
GRAND TOTAL COST	\$6,993,485



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

DATE 12/12/2018  
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 COMPLETION PREPARED BY JOSH SHANNON  
 FACILITIES PREPARED BY MATT HENSCHEN  
 ARTIFICIAL LIFT PREPARED BY BILLY MOORE/MATT H

Asset Team	PERMIAN			
Field	PURPLE SAGE;WOL	FORMATION: WOLFCAMP D	WILDCAT	EXPLORATION
Lease/Facility	Achilles 8 WD FC 2H		DEVELOPMENT	RECOMPLETION
Location	EDDY COUNTY		X EXPLOITATION	WORKOVER
Prospect	MALAGA			
Est Total Depth	15,441	Est Drilling Days		Est Completion Days 5.5

LOCATION COST - INTANGIBLE

GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	50,000
7001250	Land Broker Fees and Services	45,000
TOTAL LOCATION COST - INTANGIBLE		95,000

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	16,000
7012050	Intermediate Casing 1	55,000
7012050	Intermediate Casing 2	231,000
7012050	Production Casing	72,000
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		536,000

DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	43,333
7019220	Drilling Rig - day work/footage	489,667
7019040	Directional Drilling Services	160,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	45,000
7019140	Mud Fluids & Services	62,500
7012310	Solids Control equipment	33,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	58,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging+geosteering	15,000
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	19,417
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	75,333
7018150	Rig Equipment and Misc.	9,417
7001110	Telecommunications Services	5,000
7001120	Consulting Services	88,517
7001400	Safety and Environmental	30,133
7018120	Rental Buildings (trailers)	15,067
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	152,697
TOTAL DRILLING - INTANGIBLE		\$1,798,080

TOTAL DRILLING COST

\$2,334,080

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 12/12/2018

Asset Team PERMIAN  
Field PURPLE SAGE;WOL FORMATION: WOLFCAMP D  
Lease/Facility Achilles & WD FC 2H

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)	210,000
7019240	Snubbing Services	-
7019270	Pulling/Swab Units	-
7016350	Fuel (from drilg)	-
7019010	Casing Crew and Services	-
7019020	Cement and Cementing Services	-
7019080	Well Testing Services (flow hand & equip)	315,000
7019320	Fracturing Services	2,275,000
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	155,000
7016180	Freight - Truck (haul pipe; drilg & compl)	15,000
7018150	BOP Rental & Testing	-
7018150	Rental Tools and Equipment (incl drilg; lightplant,hydra-walk)	-
7018150	CT Downhole Rental Equipment (ie. Bit, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	90,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	150,000
7019300	Frack Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental ( w/o operator, frac tanks, lightplants)	135,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	260,000
TOTAL COMPLETION - INTANGIBLE		\$3,990,000

TOTAL COMPLETION COST

\$4,005,000

SURFACE EQUIPMENT - TANGIBLE

7012350	Misc. Piping, Fittings & Valves	85,795
7006640	Company Labor & Burden	-
7000030	Contract Labor - General	74,150
7001110	Telecommunication equip (Telemetry)	-
7012410	Line Pipe & Accessories	27,950
7012270	Miscellaneous Materials (containment system)	43,230
7008060	SCADA	-
7016180	Freight - truck	-
7001190	Contract Engineering	29,115
7012290	Metering and Instrumentation	237,080
7012290	I&E Materials	-
7012200	Gas Treating	-
7012200	Dehydration	-
7012010	Compressor	-
7012350	Power	-
7012610	Vapor Recovery Unit	-
7012440	Separator & other pressure vessels	67,350
7012500	Tanks	199,450
7012100	Heater Treater	17,560
7012640	Flare & Accessories	11,645
7000010	Electrical Labor	29,115
7000010	Mechanical Labor	-
7012480	Rod Pumping unit & Pad	-
7012180	Pumping Unit Engine	-
7012350	Electrical Power (electrical cooperative construction costs)	23,290
TOTAL SURFACE EQUIPMENT - TANGIBLE		\$839,730

TOTAL SURFACE EQUIPMENT COST

\$ 839,730

ARTIFICIAL LIFT

7012580	Tubing	50,000
7012040	Tubing Accessories (nipple, wireline entry)	5,000
7012550	Wellhead Equip	5,000
7012560	Packers - Completion Equipment	5,000
7006640	Company Labor	6,000
7012180	Gas Lift Equipment	23,000
7012480	Rod Pumping, Sucker Rods & Rod Pump	-
7012140	Elect Sub Pumps (ESP)	-
7019350	Well Services-Well/Wellhead Services	42,500
7012270	Materials & Supplies-Tangible	25,000
7012550	Surface Wellhead Equipment	3,000
7012390	Pig Launchers/Receivers & Rel Equip	-
7011010	Contingency & Taxes	5,000
TOTAL ARTIFICIAL LIFT		169,500

TOTAL ARTIFICIAL LIFT COST

\$ 169,500

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL LOCATION COST	\$ 95,000
TOTAL DRILLING COST	\$ 2,334,080
TOTAL COMPLETIONS COST	\$ 4,005,000
TOTAL SURFACE EQUIPMENT COST	\$ 839,730
TOTAL ARTIFICIAL LIFT COST	\$ 169,500

GRAND TOTAL COST

\$7,443,310

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

DATE 12/12/2018  
DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD  
COMPLETION PREPARED BY JOSH SHANNON  
FACILITIES PREPARED BY MATT HENSCHEN  
ARTIFICIAL LIFT PREPARED BY BILLY MOORE/MATT HI

Asset Team	PERMIAN			
Field	PURPLE SAGE/WOL	FORMATION: WOLFCAMP A	WILDCAT	EXPLORATION
Lease/Facility	Achilles 8 WA FC 3H		DEVELOPMENT	RECOMPLETION
Location	EDDY COUNTY		X EXPLOITATION	WORKOVER
Prospect	MALAGA			

Est Total Depth	14,729	Est Drilling Days		Est Completion Days	5.5
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LOCATION COST - INTANGIBLE

GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	37,500
7001250	Land Broker Fees and Services	33,750
TOTAL LOCATION COST - INTANGIBLE		71,250

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	16,000
7012050	Intermediate Casing 1	55,000
7012050	Intermediate Casing 2	231,000
7012050	Production Casing	69,000
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		533,000

DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	32,500
7019220	Drilling Rig - day work/footage	455,650
7019040	Directional Drilling Services	149,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	55,000
7019140	Mud Fluids & Services	61,400
7012310	Solids Control equipment	31,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	54,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging/geosteering	13,000
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	18,763
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	70,100
7018150	Rig Equipment and Misc.	8,763
7001110	Telecommunications Services	5,000
7001120	Consulting Services	82,368
7001400	Safety and Environmental	28,040
7018120	Rental Buildings (trailers)	14,020
7019310	Coring (sidewalks & analysis)	-
7011010	7% Contingency & Taxes	147,532
TOTAL DRILLING - INTANGIBLE		\$1,722,135

TOTAL DRILLING COST

\$2,255,135

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 PURPLE SAGE;WOL FORMATION: WOLFCAMP A  
Lease/Facility Achilles 8 WA FC 3H

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)	210,000
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)	315,000
7019320	Fracturing Services	1,960,000
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	147,000
7016180	Freight - Truck (haul pipe; drlg & compl)	15,000
7018150	BOP Rental & Testing	-
7018150	Rental Tools and Equipment ( incl drlg; lghtplant,hydra-walk)	-
7018150	CT Downhole Rental Equipment (ie. Bit, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	90,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	150,000
7019300	Frack Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental ( w/o operator, frac tanks, lightplants)	135,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	234,800
TOTAL COMPLETION - INTANGIBLE		\$3,641,800
TOTAL COMPLETION COST		\$3,656,800

SURFACE EQUIPMENT - TANGIBLE

7012350	Misc. Piping, Fittings & Valves	85,795
7006640	Company Labor & Burden	-
7000030	Contract Labor - General	74,150
7001110	Telecommunication equip (Telemetry)	-
7012410	Line Pipe & Accessories	27,950
7012270	Miscellaneous Materials (containment system)	43,230
7008060	SCADA	-
7016180	Freight - truck	-
7001190	Contract Engineering	29,115
7012290	Metering and Instrumentation	237,080
7012290	I&E Materials	-
7012200	Gas Treating	-
7012200	Dehydration	-
7012010	Compressor	-
7012350	Power	-
7012610	Vapor Recovery Unit	-
7012440	Separator & other pressure vessels	67,350
7012500	Tanks	193,450
7012100	Heater Treater	17,560
7012640	Flare & Accessories	11,645
7000010	Electrical Labor	29,115
7000010	Mechanical Labor	-
7012480	Rod Pumping unit & Pad	-
7012180	Pumping Unit Engine	-
7012350	Electrical Power (electrical cooperative construction costs)	23,290
TOTAL SURFACE EQUIPMENT - TANGIBLE		\$839,730
TOTAL SURFACE EQUIPMENT COST		\$ 839,730

ARTIFICIAL LIFT

7012580	Tubing	50,000
7012040	Tubing Accessories (nipple, wireline entry)	5,000
7012550	Wellhead Equip	5,000
7012560	Packers - Completion Equipment	5,000
7006640	Company Labor	6,000
7012180	Gas Lift Equipment	23,000
7012480	Rod Pumping, Sucker Rods & Rod Pump	-
7012140	Elect Sub Pumps (ESP)	-
7019350	Well Services-Well/Wellhead Services	42,500
7012270	Materials & Supplies-Tangible	25,000
7012550	Surface Wellhead Equipment	3,000
7012390	Pig Launchers/Receivers & Rel Equip	-
7011010	Contingency & Taxes	5,000
TOTAL ARTIFICIAL LIFT		169,500
TOTAL ARTIFICIAL LIFT COST		\$ 169,500

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL LOCATION COST	\$ 71,250
TOTAL DRILLING COST	\$ 2,255,135
TOTAL COMPLETIONS COST	\$ 3,656,800
TOTAL SURFACE EQUIPMENT COST	\$ 839,730
TOTAL ARTIFICIAL LIFT COST	\$ 169,500
GRAND TOTAL COST	\$6,992,415

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

DATE 12/12/2018  
DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD  
COMPLETION PREPARED BY JOSH SHANNON  
FACILITIES PREPARED BY MATT HENSCHEN  
ARTIFICIAL LIFT PREPARED BY BILLY MOORE/MATT HI

Asset Team	PERMIAN			
Field	PURPLE SAGE/WOL	FORMATION: WOLFCAMP D	WILDCAT	EXPLORATION
Lease/Facility	Achilles 8 WD FC 4H		DEVELOPMENT	RECOMPLETION
Location	EDDY COUNTY		X EXPLOITATION	WORKOVER
Prospect	MALAGA			

Est Total Depth	15,621	Est Drilling Days		Est Completion Days	5.5
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LOCATION COST - INTANGIBLE

GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	50,000
7001250	Land Broker Fees and Services	45,000
TOTAL LOCATION COST - INTANGIBLE		95,000

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	16,000
7012050	Intermediate Casing 1	55,000
7012050	Intermediate Casing 2	231,000
7012050	Production Casing	72,000
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		536,000

DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	43,333
7019220	Drilling Rig - day work/footage	489,667
7019040	Directional Drilling Services	160,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	45,000
7019020	Mud Fluids & Services	62,500
7019140	Solids Control equipment	33,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	58,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging-geosteering	15,000
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	19,417
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	75,333
7018150	Rig Equipment and Misc.	9,417
7001110	Telecommunications Services	5,000
7001120	Consulting Services	88,517
7001400	Safety and Environmental	30,133
7018120	Rental Buildings (trailers)	15,067
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	152,697

TOTAL DRILLING - INTANGIBLE	\$1,798,080
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TOTAL DRILLING COST	\$2,334,080
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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 12/12/2018

Asset Team PERMIAN  
Field PURPLE SAGE;WOL FORMATION: WOLFCAMP D  
Lease/Facility Achilles 8 WD FC 4H

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)	210,000
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)	315,000
7019320	Fracturing Services	2,275,000
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	155,000
7016180	Freight - Truck (haul pipe; drlg & compl)	15,000
7018150	BOP Rental & Testing	-
7018150	Rental Tools and Equipment (incl drlg; lightplant,hydra-walk)	-
7018150	CT Downhole Rental Equipment (ie. Bit, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	90,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	150,000
7019300	Frack Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental ( w/o operator, frac tanks, lightplants)	135,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	260,000
TOTAL COMPLETION - INTANGIBLE		\$3,990,000
TOTAL COMPLETION COST		\$4,005,000

SURFACE EQUIPMENT - TANGIBLE

7012350	Misc. Piping, Fittings & Valves	85,795
7006640	Company Labor & Burden	-
7000030	Contract Labor - General	74,150
7001110	Telecommunication equip (Telemetry)	-
7012410	Line Pipe & Accessories	27,950
7012270	Miscellaneous Materials (containment system)	43,230
7008060	SCADA	-
7016180	Freight - truck	-
7001190	Contract Engineering	29,115
7012290	Metering and Instrumentation	237,080
7012290	I&E Materials	-
7012200	Gas Treating	-
7012200	Dehydration	-
7012010	Compressor	-
7012350	Power	-
7012610	Vapor Recovery Unit	-
7012440	Separator & other pressure vessels	67,350
7012500	Tanks	193,450
7012100	Heater Treater	17,560
7012640	Flare & Accessories	11,645
7000010	Electrical Labor	29,115
7000010	Mechanical Labor	-
7012480	Rod Pumping unit & Pad	-
7012180	Pumping Unit Engine	-
7012350	Electrical Power (electrical cooperative construction costs)	23,290
TOTAL SURFACE EQUIPMENT - TANGIBLE		\$839,730
TOTAL SURFACE EQUIPMENT COST		\$ 839,730

ARTIFICIAL LIFT

7012580	Tubing	50,000
7012040	Tubing Accessories (nipple, wireline entry)	5,000
7012550	Wellhead Equip	5,000
7012560	Packers - Completion Equipment	5,000
7006640	Company Labor	6,000
7012180	Gas Lift Equipment	23,000
7012480	Rod Pumping, Sucker Rods & Rod Pump	-
7012140	Elect Sub Pumps (ESP)	-
7019350	Well Services-Well/Wellhead Services	42,500
7012270	Materials & Supplies-Tangible	25,000
7012550	Surface Wellhead Equipment	3,000
7012390	Pig Launchers/Receivers & Rel Equip	-
7011010	Contingency & Taxes	5,000
TOTAL ARTIFICIAL LIFT		169,500
TOTAL ARTIFICIAL LIFT COST		\$ 169,500

SUMMARY OF ESTIMATED DRILLING WELL COSTS

	TOTAL COST
TOTAL LOCATION COST	\$ 95,000
TOTAL DRILLING COST	\$ 2,334,080
TOTAL COMPLETIONS COST	\$ 4,005,000
TOTAL SURFACE EQUIPMENT COST	\$ 839,730
TOTAL ARTIFICIAL LIFT COST	\$ 169,500
GRAND TOTAL COST	\$7,443,310



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

DATE 12/12/2018  
DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD  
COMPLETION PREPARED BY JOSH SHANNON  
FACILITIES PREPARED BY MATT HENSCHEN  
ARTIFICIAL LIFT PREPARED BY BILLY MOORE/MATT HI

Asset Team	PERMIAN	FORMATION: WOLFCAMP XY	WILDCAT	EXPLORATION
Field	PURPLE SAGE/WOL		DEVELOPMENT	RECOMPLETION
Lease/Facility	Achilles & WXY FC 5H		X EXPLOITATION	WORKOVER
Location	EDDY COUNTY			
Prospect	MALAGA			

Est Total Depth	14,609	Est Drilling Days		Est Completion Days	5.5
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LOCATION COST - INTANGIBLE

GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	37,500
7001250	Land Broker Fees and Services	33,750
TOTAL LOCATION COST - INTANGIBLE		71,250

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	16,000
7012050	Intermediate Casing 1	55,000
7012050	Intermediate Casing 2	231,000
7012050	Production Casing	69,000
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		533,000

DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	32,500
7019220	Drilling Rig - day work/footage	455,650
7019040	Directional Drilling Services	149,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	55,000
7019140	Mud Fluids & Services	61,400
7012310	Solids Control equipment	31,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	54,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging+geosteering	13,000
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
7009030	Contract Labor - general	30,000
7009030	Contract Labor - Operations	3,000
7001200	Contract Services - Facilities	10,000
7019300	Well Services - Well Control Services	18,763
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	70,100
7018150	Rig Equipment and Misc.	8,763
7001110	Telecommunications Services	5,000
7001120	Consulting Services	82,368
7001400	Safety and Environmental	28,040
7018120	Rental Buildings (trailers)	14,020
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	147,532
TOTAL DRILLING - INTANGIBLE		\$1,722,135

TOTAL DRILLING COST	\$2,255,135
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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 PURPLE SAGE;WOL FORMATION: WOLFCAMP XY  
 Lease/Facility Achilles 8 WXY FC 5H

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)	210,000
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)	315,000
7019320	Fracturing Services	1,960,000
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	147,000
7016180	Freight - Truck (haul pipe; drlg & compl)	15,000
7018150	BOP Rental & Testing	-
7018150	Rental Tools and Equipment (incl drlg; lightplant,hydra-walk)	-
7018150	CT Downhole Rental Equipment (ie. Bit, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	90,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	150,000
7019300	Frac Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental ( w/o operator, frac tanks, lightplants)	135,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	234,800
TOTAL COMPLETION - INTANGIBLE		\$3,641,800
TOTAL COMPLETION COST		\$3,656,800

SURFACE EQUIPMENT - TANGIBLE

7012350	Misc. Piping, Fittings & Valves	85,795
7006640	Company Labor & Burden	-
7000030	Contract Labor - General	74,150
7001110	Telecommunication equip (Telemetry)	-
7012410	Line Pipe & Accessories	27,950
7012270	Miscellaneous Materials (containment system)	43,230
7008060	SCADA	-
7016180	Freight - truck	-
7001190	Contract Engineering	29,115
7012290	Metering and Instrumentation	237,080
7012290	I&E Materials	-
7012200	Gas Treating	-
7012200	Dehydration	-
7012010	Compressor	-
7012350	Power	-
7012610	Vapor Recovery Unit	-
7012440	Separator & other pressure vessels	67,350
7012500	Tanks	193,450
7012100	Heater Treater	17,560
7012640	Flare & Accessories	11,645
7000010	Electrical Labor	29,115
7000010	Mechanical Labor	-
7012480	Rod Pumping unit & Pad	-
7012180	Pumping Unit Engine	-
7012350	Electrical Power (electrical cooperative construction costs)	28,290
TOTAL SURFACE EQUIPMENT - TANGIBLE		\$839,730
TOTAL SURFACE EQUIPMENT COST		\$ 839,730

ARTIFICIAL LIFT

7012580	Tubing	50,000
7012040	Tubing Accessories (nipple, wireline entry)	5,000
7012550	Wellhead Equip	5,000
7012560	Packers - Completion Equipment	5,000
7006640	Company Labor	6,000
7012180	Gas Lift Equipment	23,000
7012480	Rod Pumping, Sucker Rods & Rod Pump	-
7012140	Elect Sub Pumps (ESP)	-
7019350	Well Services-Well/Wellhead Services	42,500
7012270	Materials & Supplies-Tangible	25,000
7012550	Surface Wellhead Equipment	3,000
7012390	Pig Launchers/Receivers & Rel Equip	-
7011010	Contingency & Taxes	5,000
TOTAL ARTIFICIAL LIFT		169,500
TOTAL ARTIFICIAL LIFT COST		\$ 169,500

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL LOCATION COST	\$ 71,250
TOTAL DRILLING COST	\$ 2,255,135
TOTAL COMPLETIONS COST	\$ 3,656,800
TOTAL SURFACE EQUIPMENT COST	\$ 839,730
TOTAL ARTIFICIAL LIFT COST	\$ 169,500
GRAND TOTAL COST	\$6,992,415

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

DATE 12/12/2018  
DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD  
COMPLETION PREPARED BY JOSH SHANNON  
FACILITIES PREPARED BY MATT HENSCHEN  
ARTIFICIAL LIFT PREPARED BY BILLY MOORE/MATT HI

Asset Team	PERMIAN			
Field	PURPLE SAGE/WOL	FORMATION: WOLFCAMP A	WILDCAT	EXPLORATION
Lease/Facility	Achilles & WA FC 7H		DEVELOPMENT	RECOMPLETION
Location	EDDY COUNTY		X EXPLOITATION	WORKOVER
Prospect	MALAGA			

Est Total Depth	14,774	Est Drilling Days		Est Completion Days	5.5
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LOCATION COST - INTANGIBLE

GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	37,500
7001250	Land Broker Fees and Services	33,750
TOTAL LOCATION COST - INTANGIBLE		71,250

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	16,000
7012050	Intermediate Casing 1	55,000
7012050	Intermediate Casing 2	231,000
7012050	Production Casing	69,000
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		533,000

DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	32,500
7019220	Drilling Rig - day work/footage	455,650
7019040	Directional Drilling Services	149,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	55,000
7019140	Mud Fluids & Services	61,400
7012310	Solids Control equipment	31,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	54,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging-geosteering	13,000
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	18,763
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	70,100
7018150	Rig Equipment and Misc.	8,763
7001110	Telecommunications Services	5,000
7001120	Consulting Services	82,368
7001400	Safety and Environmental	28,040
7018120	Rental Buildings (trailers)	14,020
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	147,532
TOTAL DRILLING - INTANGIBLE		\$1,722,135

TOTAL DRILLING COST

\$2,255,135

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 12/12/2018

Asset Team PERMIAN  
Field PURPLE SAGE;WOL FORMATION: WOLFCAMP A  
Lease/Facility Achilles 8 WA FC 7H

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)	210,000
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)	315,000
7019320	Fracturing Services	1,960,000
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	147,000
7016180	Freight - Truck (haul pipe; drlg & compl)	15,000
7018150	BOP Rental & Testing	-
7018150	Rental Tools and Equipment (incl drlg; lightplant,hydra-walk)	-
7018150	CT Downhole Rental Equipment (ie. Bit, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	90,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	150,000
7019300	Frac Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental (w/o operator, frac tanks, lightplants)	135,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	234,800
TOTAL COMPLETION - INTANGIBLE		\$3,641,800
TOTAL COMPLETION COST		\$3,656,800

SURFACE EQUIPMENT - TANGIBLE

7012350	Misc. Piping, Fittings & Valves	85,795
7006640	Company Labor & Burden	-
7000030	Contract Labor - General	74,150
7001110	Telecommunication equip (Telemetry)	-
7012410	Line Pipe & Accessories	27,950
7012270	Miscellaneous Materials (containment system)	43,230
7008060	SCADA	-
7016180	Freight - truck	-
7001190	Contract Engineering	29,115
7012290	Metering and Instrumentation	237,080
7012290	I&E Materials	-
7012200	Gas Treating	-
7012200	Dehydration	-
7012010	Compressor	-
7012350	Power	-
7012610	Vapor Recovery Unit	-
7012440	Separator & other pressure vessels	67,350
7012500	Tanks	193,450
7012100	Heater Treater	17,560
7012640	Flare & Accessories	11,645
7000010	Electrical Labor	29,115
7000010	Mechanical Labor	-
7012480	Rod Pumping unit & Pad	-
7012180	Pumping Unit Engine	-
7012350	Electrical Power (electrical cooperative construction costs)	23,290
TOTAL SURFACE EQUIPMENT - TANGIBLE		\$839,730
TOTAL SURFACE EQUIPMENT COST		\$ 839,730

ARTIFICIAL LIFT

7012580	Tubing	50,000
7012040	Tubing Accessories (nipple, wireline entry)	5,000
7012550	Wellhead Equip	5,000
7012560	Packers - Completion Equipment	5,000
7006640	Company Labor	6,000
7012180	Gas Lift Equipment	23,000
7012480	Rod Pumping, Sucker Rods & Rod Pump	-
7012140	Elect Sub Pumps (ESP)	-
7019350	Well Services-Well/Wellhead Services	42,500
7012270	Materials & Supplies-Tangible	25,000
7012550	Surface Wellhead Equipment	3,000
7012390	Pig Launchers/Receivers & Rel Equip	-
7011010	Contingency & Taxes	5,000
TOTAL ARTIFICIAL LIFT		169,500
TOTAL ARTIFICIAL LIFT COST		\$ 169,500

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL LOCATION COST	\$ 71,250
TOTAL DRILLING COST	\$ 2,255,135
TOTAL COMPLETIONS COST	\$ 3,656,800
TOTAL SURFACE EQUIPMENT COST	\$ 839,730
TOTAL ARTIFICIAL LIFT COST	\$ 169,500
GRAND TOTAL COST	\$6,992,415



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

DATE 12/12/2018  
 DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD  
 COMPLETION PREPARED BY JOSH SHANNON  
 FACILITIES PREPARED BY MATT HENSCHEN  
 ARTIFICIAL LIFT PREPARED BY BILLY MOORE/MATT H

Asset Team	PERMIAN			
Field	PURPLE SAGE;WOL	FORMATION: WOLFCAMP D	WILDCAT	EXPLORATION
Lease/Facility	Achilles & WD FC BH		DEVELOPMENT	RECOMPLETION
Location	EDDY COUNTY		X EXPLOITATION	WORKOVER
Prospect	MALAGA			

Est Total Depth	15,436	Est Drilling Days		Est Completion Days	5.5
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LOCATION COST - INTANGIBLE

GL CODE	DESCRIPTION	ESTIMATED COST
7001270	Location and Access	50,000
7001250	Land Broker Fees and Services	45,000
TOTAL LOCATION COST - INTANGIBLE		95,000

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	16,000
7012050	Intermediate Casing 1	55,000
7012050	Intermediate Casing 2	231,000
7012050	Production Casing	72,000
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		536,000

DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	43,333
7019220	Drilling Rig - day work/footage	489,667
7019040	Directional Drilling Services	160,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	40,000
7019020	Cement and Cementing Service Production	45,000
7019140	Mud Fluids & Services	62,500
7012310	Solids Control equipment	33,000
7012020	Blts	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	58,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging-geosteering	15,000
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	19,417
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	75,333
7018150	Rig Equipment and Misc.	9,417
7001110	Telecommunications Services	5,000
7001120	Consulting Services	88,517
7001400	Safety and Environmental	30,133
7018120	Rental Buildings (trailers)	15,067
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	152,697
TOTAL DRILLING - INTANGIBLE		\$1,798,080

TOTAL DRILLING COST

\$2,334,080

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 12/12/2018

Asset Team PERMIAN  
 Field PURPLE SAGE/WOL FORMATION: WOLFCAMP D  
 Lease/Facility Achilles 8 WD FC BH

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)	210,000
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)	315,000
7019320	Fracturing Services	2,275,000
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	155,000
7016180	Freight - Truck (haul pipe; drlg & compl)	15,000
7018150	BOP Rental & Testing	-
7018150	Rental Tools and Equipment (incl drlg; lightplant,hydra-walk)	-
7018150	CT Downhole Rental Equipment (ie. BIt, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	90,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	150,000
7019300	Frac Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental ( w/o operator, frac tanks, lightplants)	135,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	260,000
TOTAL COMPLETION - INTANGIBLE		\$3,990,000
TOTAL COMPLETION COST		\$4,005,000

SURFACE EQUIPMENT - TANGIBLE

7012350	Misc. Piping, Fittings & Valves	85,795
7006640	Company Labor & Burden	-
7000030	Contract Labor - General	74,150
7001110	Telecommunication equip (Telemetry)	-
7012410	Line Pipe & Accessories	27,950
7012270	Miscellaneous Materials (containment system)	43,230
7008060	SCADA	-
7016180	Freight - truck	-
7001190	Contract Engineering	29,115
7012390	Metering and Instrumentation	237,080
7012290	I&E Materials	-
7012200	Gas Treating	-
7012200	Dehydration	-
7012010	Compressor	-
7012350	Power	-
7012610	Vapor Recovery Unit	-
7012440	Separator & other pressure vessels	67,350
7012500	Tanks	193,450
7012100	Heater Treater	17,560
7012640	Flare & Accessories	11,645
7000010	Electrical Labor	29,115
7000010	Mechanical Labor	-
7012480	Rod Pumping unit & Pad	-
7012180	Pumping Unit Engine	-
7012350	Electrical Power (electrical cooperative construction costs)	23,290
TOTAL SURFACE EQUIPMENT - TANGIBLE		\$839,730
TOTAL SURFACE EQUIPMENT COST		\$ 839,730

ARTIFICIAL LIFT

7012580	Tubing	50,000
7012040	Tubing Accessories (nipple, wireline entry)	5,000
7012550	Wellhead Equip	5,000
7012560	Packers - Completion Equipment	5,000
7006640	Company Labor	6,000
7012180	Gas Lift Equipment	23,000
7012480	Rod Pumping, Sucker Rods & Rod Pump	-
7012140	Elect Sub Pumps (ESP)	-
7019350	Well Services-Well/Wellhead Services	42,500
7012270	Materials & Supplies-Tangible	25,000
7012550	Surface Wellhead Equipment	3,000
7012390	Pig Launchers/Receivers & Rel Equip	-
7011010	Contingency & Taxes	5,000
TOTAL ARTIFICIAL LIFT		169,500
TOTAL ARTIFICIAL LIFT COST		\$ 169,500

SUMMARY OF ESTIMATED DRILLING WELL COSTS

	TOTAL COST
TOTAL LOCATION COST	\$ 95,000
TOTAL DRILLING COST	\$ 2,334,080
TOTAL COMPLETIONS COST	\$ 4,005,000
TOTAL SURFACE EQUIPMENT COST	\$ 839,730
TOTAL ARTIFICIAL LIFT COST	\$ 169,500
GRAND TOTAL COST	\$7,443,310

# **Exhibit 6**



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

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

**CASE NO. 20466  
(ACHILLES)**

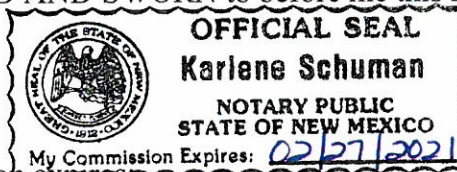
**AFFIDAVIT**

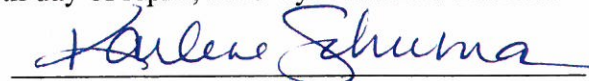
STATE OF NEW MEXICO           )  
  ) ss.  
COUNTY OF BERNALILLO       )

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 Application was sent under a notice letter and that proof of receipt is attached hereto.

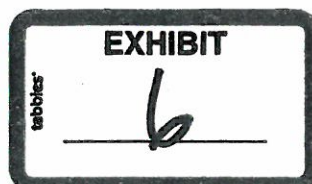
  
Deana M. Bennett

SUBSCRIBED AND SWORN to before me this 29th day of April, 2019 by Deana M. Bennett.



  
Notary Public

My commission expires: \_\_\_\_\_



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  
04/12/2019



Firm Mailing Book ID: 165045

81363-  
0124

Line	USPS Article Number	Name, Street, City, State, Zip	Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
1	9314 8699 0430 0058 0091 10	CL&F Resources, L.P. P.O. Box 4438 Houston TX 77210	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
2	9314 8699 0430 0058 0091 27	Novo Oil & Gas Northern Delaware, LLC 1001 West Wilshire Blvd., Suite 206 Oklahoma City OK 73116	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
3	9314 8699 0430 0058 0091 34	Ozark Exploration, Inc. 3838 Oak Lawn Ave., Suite 1525 Dallas TX 75219	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
4	9314 8699 0430 0058 0091 41	Mizel Resources, A Trust 4350 S. Monaco St., 5th Floor Denver CO 80237	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
5	9314 8699 0430 0058 0091 58	Sisbro Oil & Gas, LLC 4350 S. Monaco St., 5th Floor Denver CO 80237	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
6	9314 8699 0430 0058 0091 65	Trabajo Del Spear, LP P.O. Box 1684 Brett Guitar Witherspoon	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
7	9314 8699 0430 0058 0091 72	P.O. Box 100635 John Guitar Witherspoon, Jr 7404 Lemonwood Ln. Fort Worth TX 76133	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
8	9314 8699 0430 0058 0091 89	Norma J. Chanley P.O. Box 728 Hobbs NM 88241	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
9	9314 8699 0430 0058 0091 96	OXY USA WTP, LTD 5 Greenway Plaza, Suite 110 Houston TX 77046	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
10	9314 8699 0430 0058 0092 02	Stanico Energy Corp. P.O. Box 32467 Oklahoma City OK 73123	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
11	9314 8699 0430 0058 0092 19	Roy G. Barton, Jr. and Claudia R. Barton 1919 N. Turner St. Hobbs NM 88240	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
12	9314 8699 0430 0058 0092 26	McLish Resources Partnership LP LLP 1520 W Canal Ct, Suite 220 Littleton CO 80120	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
13	9314 8699 0430 0058 0092 33	Sam H. Jolliffe, IV 3150 McMasters Road Billings MT 59101	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
14	9314 8699 0430 0058 0092 40	Teresa H. Jolliffe 408 Kenniston Austin TX 78752	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
15	9314 8699 0430 0058 0092 57		\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice

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

PS Form 3877

Type of Mailing: CERTIFIED MAIL  
04/12/2019



Firm Mailing Book ID: 165045

Line	USPS Article Number	Name, Street, City, State, Zip	Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
16	9314 8699 0430 0058 0092 64	Charmar, L.L.C. 4815 Vista Del Oso Ct., NE Albuquerque NM 87109	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
17	9314 8699 0430 0058 0092 71	John D. Hamiga PO Box 14144 San Francisco CA 94114	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
18	9314 8699 0430 0058 0092 88	Terri L. Simpson 14437 Rios Canyon Rd El Cajon CA 92021	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
19	9314 8699 0430 0058 0092 95	Vikki L. Hicks Smith 9104 Haines Ave NE Albuquerque NM 87112	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
20	9314 8699 0430 0058 0093 01	Charles Randall Hicks 9104 Haines Ave NE Albuquerque NM 87112	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
21	9314 8699 0430 0058 0093 18	Kenneth Jay Reynolds 1912 Crescent Pl Midland TX 79705	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
22	9314 8699 0430 0058 0093 25	Zunis Energy LLC 15 East 5th Street, Suite 3300 Tulsa OK 74103	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
23	9314 8699 0430 0058 0093 32	Susannah D. Adelson, Trustee of the James Adelson & Family 2015 Trusts 15 East 5th Street, Suite 3300 Tulsa OK 74103	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
24	9314 8699 0430 0058 0093 49	Marathon Oil Permian, LLC 5555 San Felipe Street Houston TX 77057	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
25	9314 8699 0430 0058 0093 56	Noble Energy, Inc. 1001 Noble Energy Way Houston TX 77070	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
26	9314 8699 0430 0058 0093 63	Norma J. Chanley 407 E Arriba Drive Hobbs NM 88240	\$1.15	\$3.50	\$1.60	\$0.00	81363-Achilles Notice
<b>Totals:</b>			<b>\$29.90</b>	<b>\$91.00</b>	<b>\$41.60</b>	<b>\$0.00</b>	<b>Grand Total: \$162.50</b>

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Transaction Report Details - CertifiedPro.net  
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9314869904300058009110	2019-04-12 7:04 AM	CL&F Resources, L.P.		P.O. Box 4438	Houston	TX	77210	Delivered	Return Receipt - Electronic, Certified Mail	04-16-2019



# CARLSBAD CURRENT-ARGUS

## AFFIDAVIT OF PUBLICATION

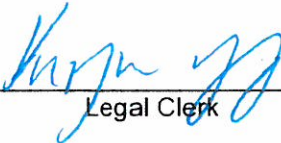
Ad No.  
0001283425

MODRALL SPERLING ROEHL HARRIS & SISK  
500 4TH ST NW STE 1000

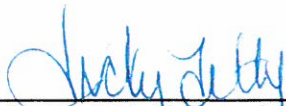
ALBUQUERQUE NM 87102

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:

04/17/19

  
Legal Clerk

Subscribed and sworn before me this  
17th of April 2019.



State of WI, County of Brown  
NOTARY PUBLIC

9-14-11

My Commission Expires

CASE No. 20466: Notice to all affected parties, as well as the heirs and devisees of CL&F RESOURCES L.P.; NOVO OIL & GAS NORTH-ERN DELAWARE, LLC; OZARK EXPLORATION INC.; MIZEL RESOURCES, A TRUST; SISBRO OIL & GAS, LLC; TRABAJODEL SPEAR, LP; BRETT GUITAR WITHERSPOON; JOHN GUITAR WITHERSPOON, JR.; NORMA J. CHANLEY; OXY USA WTP, LTD; STANICO ENERGY CORP.; ROY G. BARTON, JR. AND CLAUDIA R. BARTON MCLISH RESOURCES PARTNERSHIP LP LLP SAM H. JOLLIFFE, IV; TERESA H. JOLLIFFE CHARMAR, L.L.C.; JOHN D. HAMIGA; TERRIL SIMPSON; VIKKI L. HICKS SMITH; CHARLES RANDALL HICKS; KENNETH JAY REYNOLDS ZUNIS ENERGY LLC; SUSANNAH D. ADELSON TRUSTEES OF THE JAMES ADELSON & FAMILY 2015 TRUSTS; MARATHON OIL PERMIAN, LLC NOBLE ENERGY, INC.; NORMA J. CHANLEY 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 May 2, 2019. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the E/2 of Section 5, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Achilles 8 WXY FC 1H; Achilles 8 WA FC 3H; Achilles 8 WXY FC 5H; Achilles 8 WA FC 7H; Achilles 8 WD FC 2H; Achilles 8 WD FC 4H; Achilles 8 WD FC 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. Said area is located approximately 3.5 miles North/Northwest of Loving, New Mexico.

Ad#: 0001283425  
P O : Achilles  
# of Affidavits : 0.00



CASE No. 20466: Notice to all affected parties, as well as the heirs and devisees of CL&F RESOURCES, L.P.; NOVO OIL & GAS NORTH-ERN DELAWARE, LLC; OZARK EXPLORATION, INC.; MIZEL RESOURCES, A TRUST; SISBRO OIL & GAS, LLC; TRABAJO DEL SPEAR, LP; BRETT GUITAR WITHERSPOON; JOHN GUITAR WITHERSPOON, JR; NORMA J. CHANLEY; OXY USA WTP, LTD; STANICO ENERGY CORP.; ROY G. BARTON, JR. AND CLAUDIA R. BARTON; MCLISH RESOURCES PARTNERSHIP LP LLP; SAM H. JOLLIFFE, IV4; TERESA H. JOLLIFFE; CHARMAR, L.L.C.; JOHN D. HAMIGA; TERRI L. SIMPSON; VIKKI L. HICKS SMITH; CHARLES RANDALL HICKS; KENNETH JAY REYNOLDS; ZUNIS ENERGY LLC; SUSANNAH D. ADELSON, TRUSTEE OF THE JAMES ADELSON & FAMILY 2015 TRUSTS; MARATHON OIL PERMIAN, LLC; NOBLE ENERGY, INC.; NORMA J. CHANLEY 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 May 2, 2019. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Wolfcamp horizontal spacing unit underlying the E/2 of Section 5, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the Achilles 8 WXY FC 1H; Achilles 8 WA FC 3H; Achilles 8 WXY FC 5H; Achilles 8 WA FC 7H; Achilles 8 WD FC 2H; Achilles 8 WD FC 4H; Achilles 8 WD FC 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. Said area is located approximately 3.5 miles North/Northwest of Loving, New Mexico.

# **Exhibit B**

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

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

**CASE NO. 20466  
(ACHILLES)**

**AFFIDAVIT**

STATE OF TEXAS                                 )  
  ) ss.  
COUNTY OF HARRIS                             )

Matt Baker, 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 been qualified by the Oil Conservation Division ("Division") as an expert petroleum geologist.

2. **Exhibit 7** is a structure map of the top of the Wolfcamp. The proposed project area is identified by a black-dashed box. The proposed horizontal locations are identified by colored lines, and the proposed wells are numbered 1-7.

3. Exhibit 7 shows that the structure dips to the East.

4. I have prepared separate exhibits for the proposed Upper Wolfcamp wells and Lower Wolfcamp wells.

5. **Exhibit 8** identifies five vertical wells in the vicinity of the proposed Upper Wolfcamp wells, which are the WA and WXY wells, and has a line of cross-section running from A to A'.





6. **Exhibit 9** is a stratigraphic cross section hung on the top of the Wolfcamp, also for the Upper Wolfcamp wells. The well logs on the cross-section give a representative sample of the Wolfcamp formation in the area. The target zones for the wells are the Wolfcamp Y Sand and the Wolfcamp A, identified by the words "Producing Zone" and the shaded area across the cross section, along with a red arrow, indicating the ideal landing depth. The Wolfcamp Y Sand thickness varies slightly from North to South. The Wolfcamp A thickness is relatively consistent from North to South.

7. **Exhibit 10** is a Gross Interval Isochore of the Wolfcamp to Wolfcamp B. The gross formation thickness is relatively uniform across the proposed well unit.

8. **Exhibit 11** identifies five wells in the vicinity of the proposed Lower Wolfcamp wells, which are the WD wells, and has a line of cross-section running from A to A'.

9. **Exhibit 12** is a stratigraphic cross section showing the Wolfcamp D2 datum, also for the Lower Wolfcamp wells. The well logs on the cross-section give a representative sample of the Wolfcamp formation in the area. The target zones for the wells are identified by the words "Producing Zone" and the shaded area across the cross section, along with a red arrow. The Wolfcamp C2 interval thickens from North to South. The Wolfcamp D2 thickness is relatively consistent from across the unit.

10. **Exhibit 13** is a Gross Interval Isochore of the Wolfcamp C2 to D3. The gross formation thickens slightly from North to South across the proposed well unit.

11. I conclude from the maps that:

- a. The horizontal spacing unit is 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 the unit will contribute more or less equally to production.

12. The preferred well orientation in this area is either North/South or East/West.

This is because of the  $SH_{max}$  is  $\sim 45^\circ$  from North within this unit..

13. Exhibits 7-13 were prepared by my or under my supervision or compiled from company business records.

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

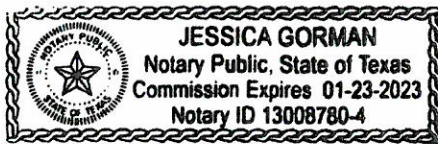
*[Signature page follows]*

M-P-B  
Matt Baker

SUBSCRIBED AND SWORN to before me this 30<sup>th</sup> day of April, 2019 by Matt Baker,  
on behalf of Marathon Oil Permian LLC.

Jessica Gorman  
Notary Public

My commission expires: 1/23/2023

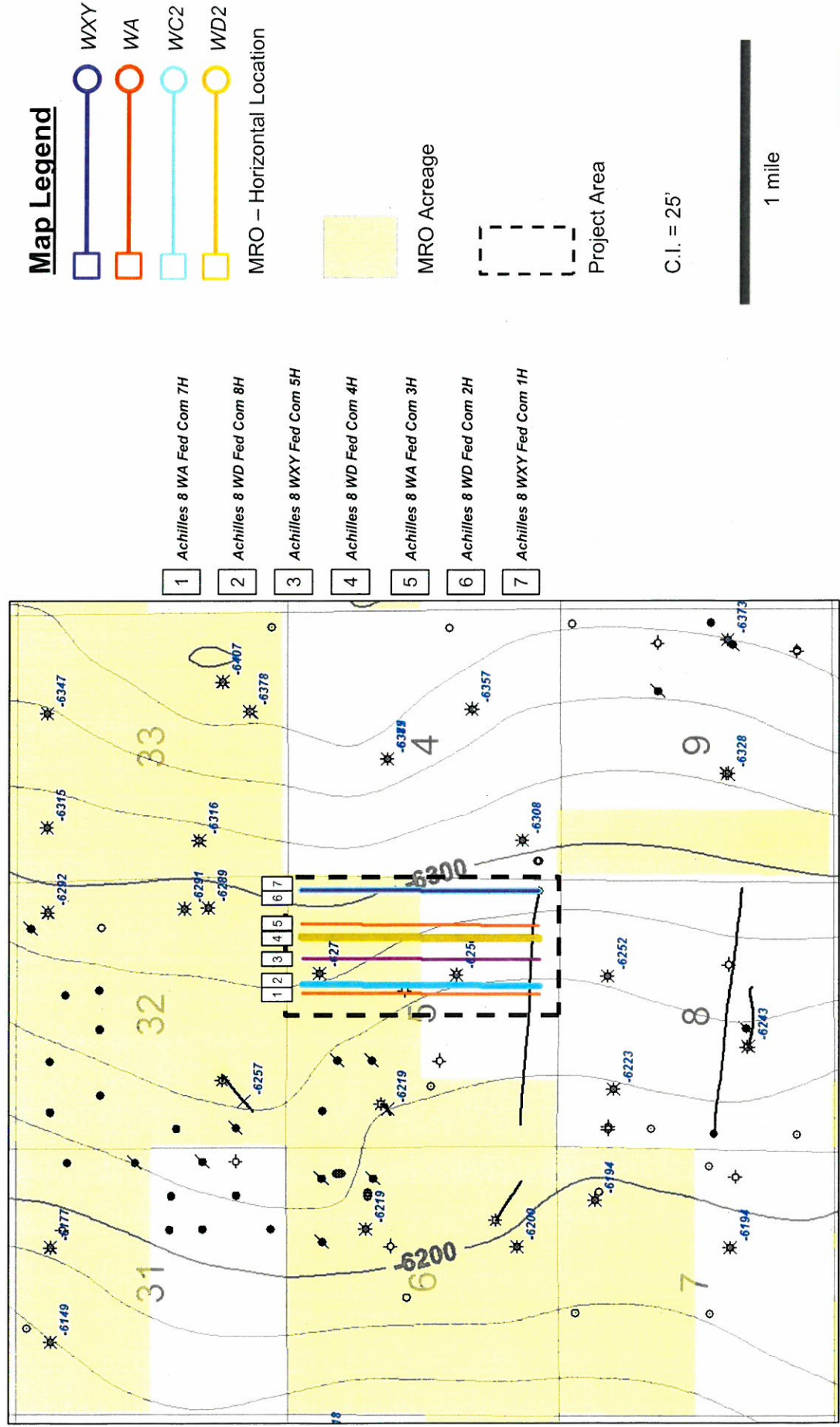


# **Exhibit 7**



# Achilles 8 Fed Com Unit

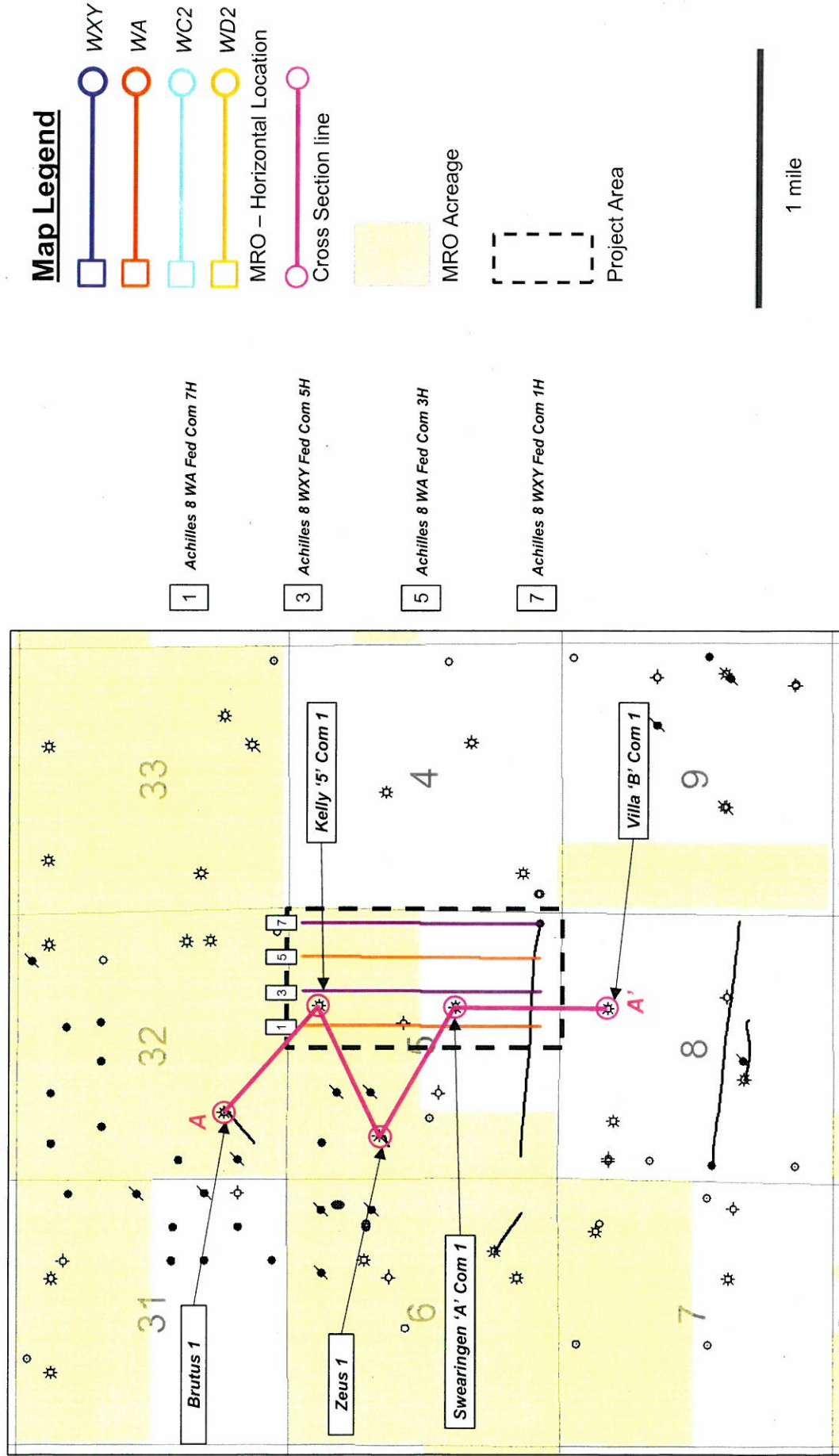
## Structure Map – Top of Wolfcamp (SSTVD)



# **Exhibit 8**

# Achilles 8 Fed Com Unit

## Reference Map for Cross Section – Upper Wolfcamp Wells



EXHIBIT

8

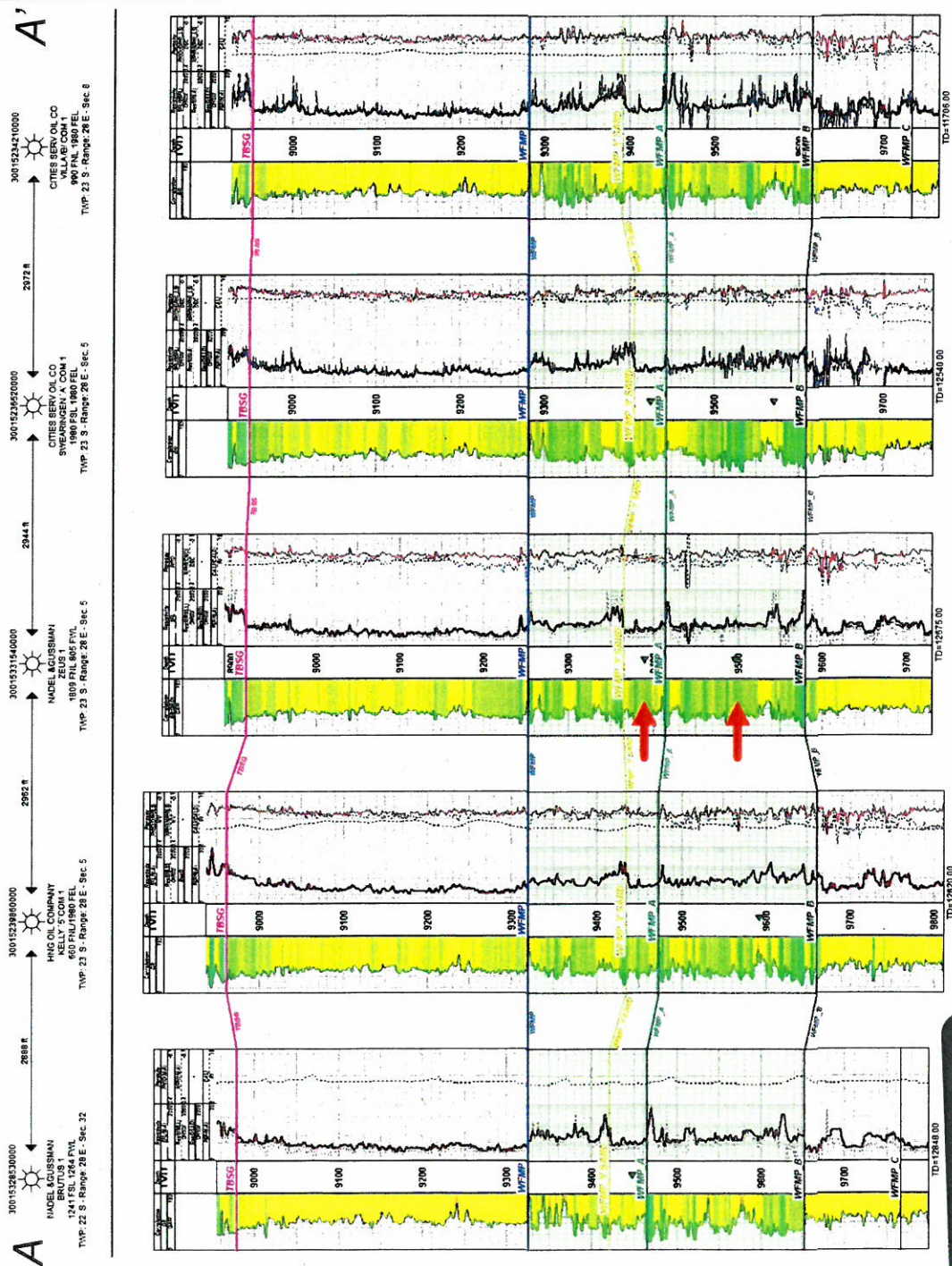
# **Exhibit 9**



*Wolfcamp Y-Sand thickness varies slightly from North to South*

*Wolfcamp A thickness relatively consistent from North to South*

### Producing Zone



# EXHIBIT



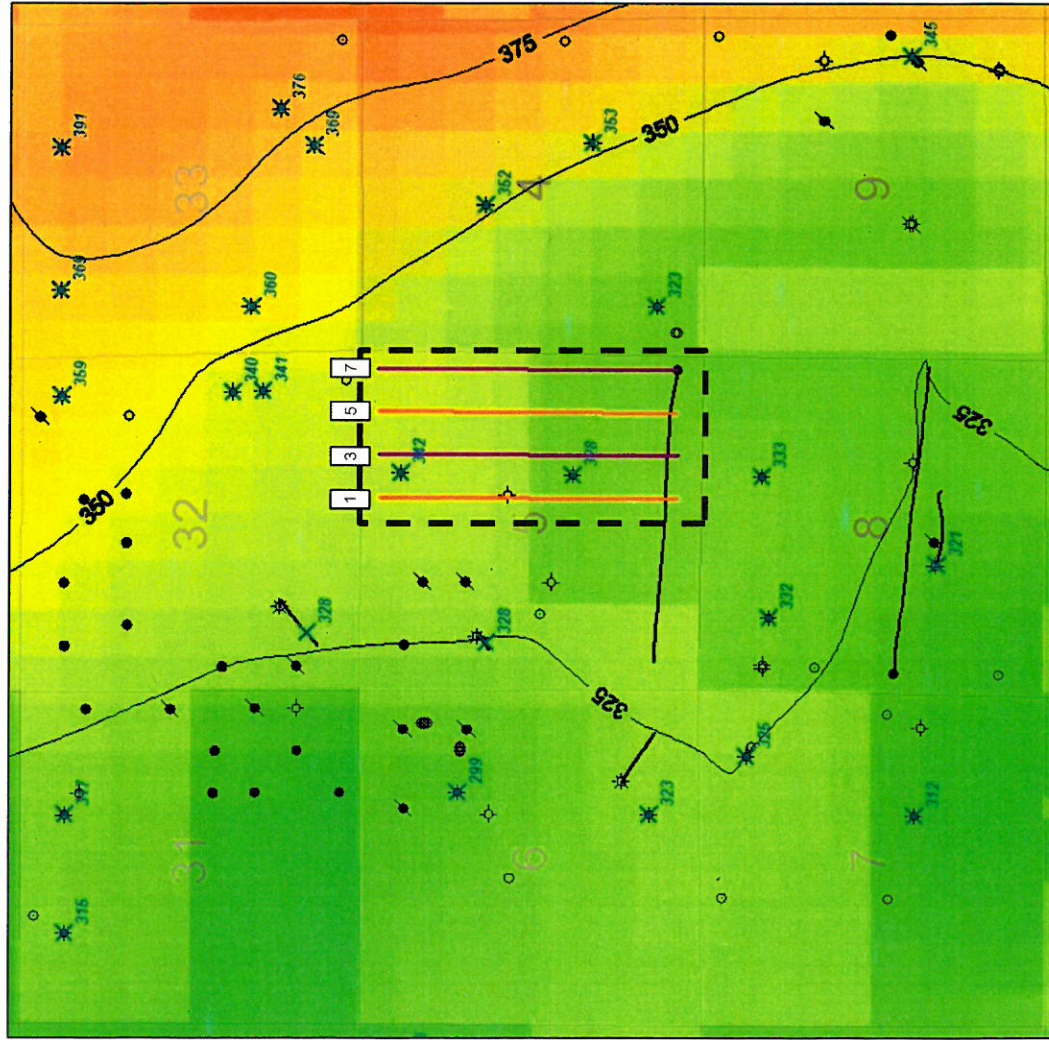
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# **Exhibit 10**



# Achilles 8 Fed Com Unit

Gross Interval Isochore – Wolfcamp to Wolfcamp B

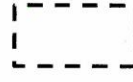


## Map Legend

- WXY
- WA
- WC2
- WD2
- MRO – Horizontal Location
- Cross Section line



MRO Acreage



Project Area

C.I. = 25'

1 mile

EXHIBIT

10

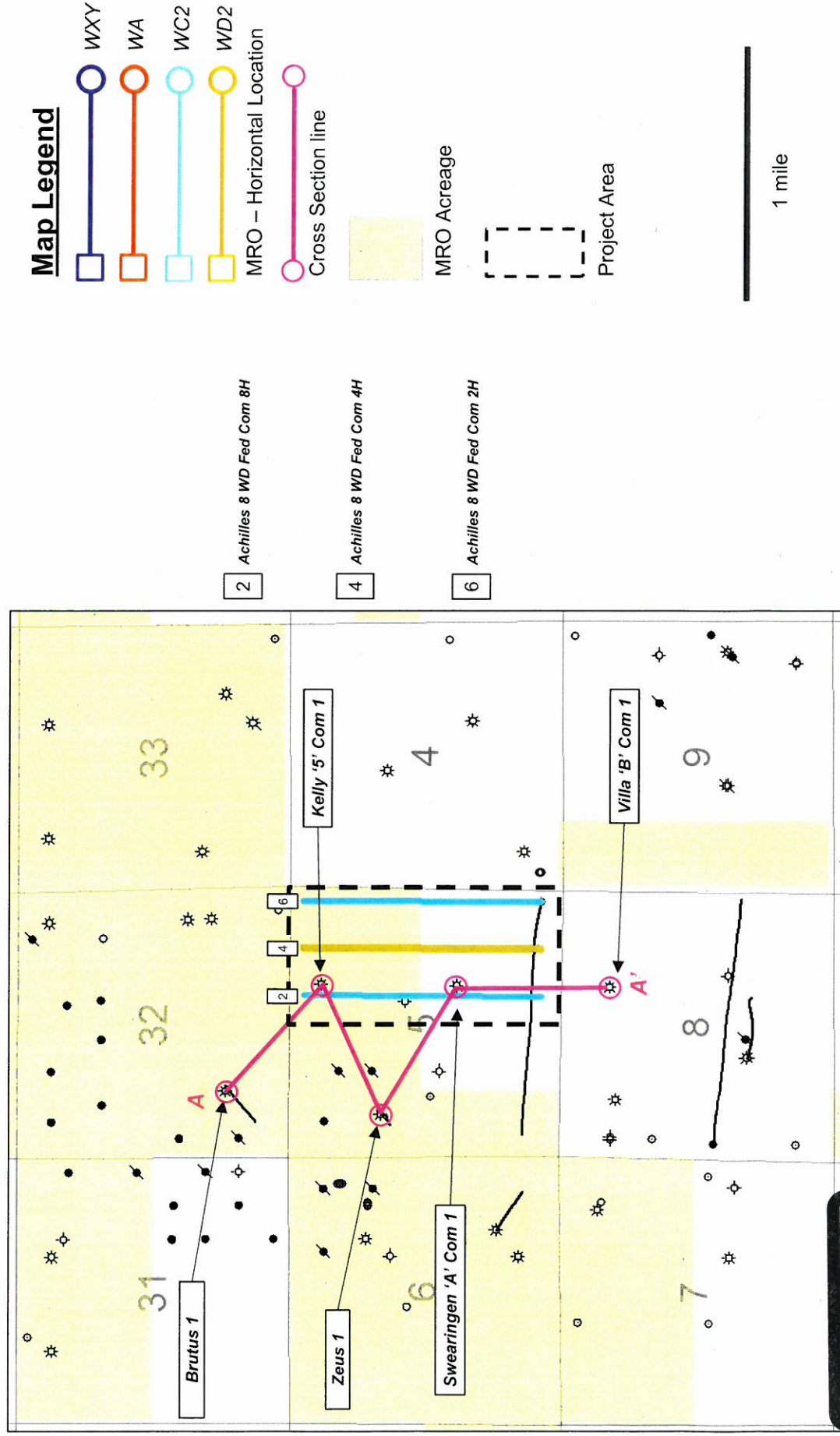
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# **Exhibit 11**



# Achilles 8 Fed Com Unit

## Reference Map for Cross Section – Lower Wolfcamp Wells



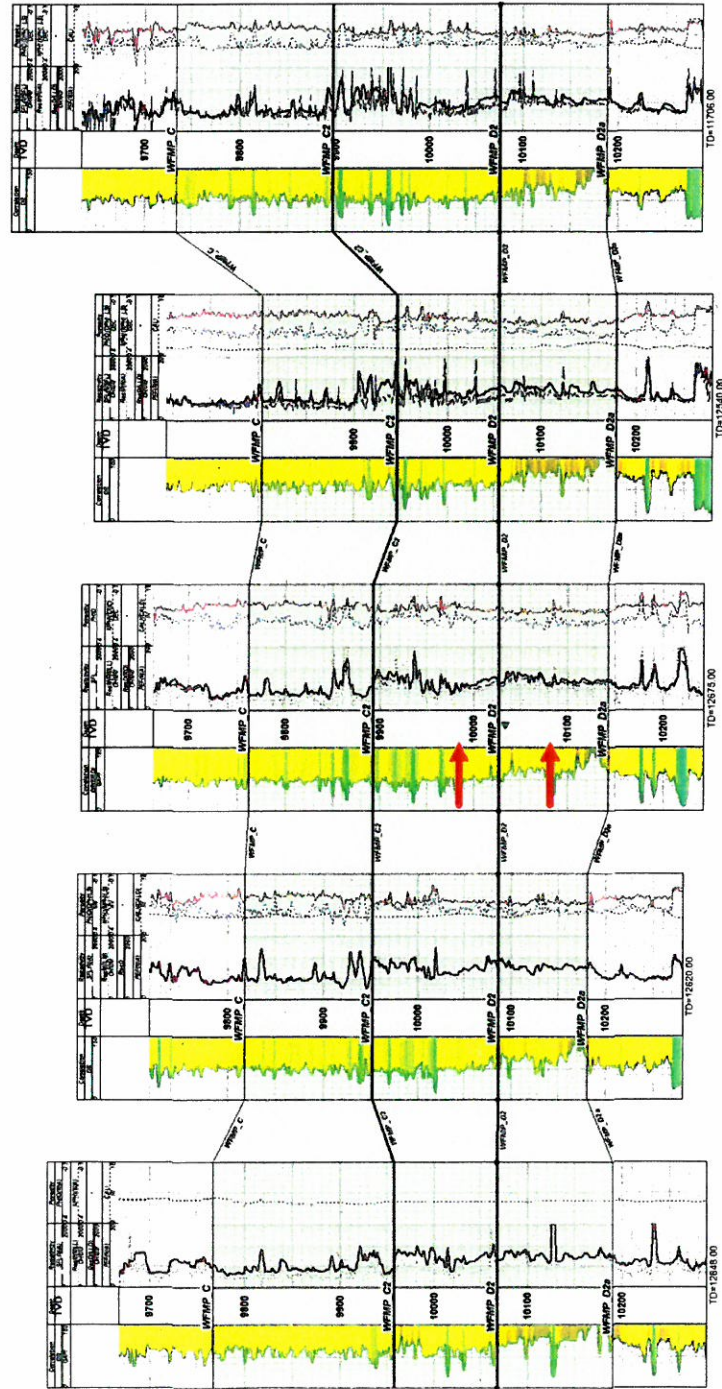
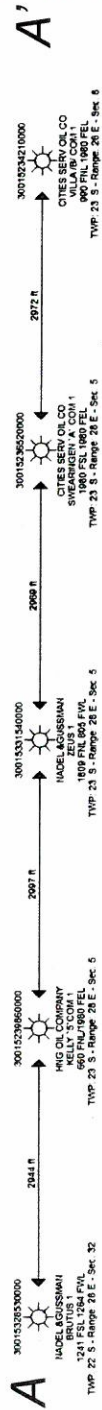
EXHIBIT

11

# **Exhibit 12**

# Achilles 5 Fee Unit

## Stratigraphic Cross Section (Wolfcamp D2 Datum)



Wolfcamp C2 interval thickens  
 from North to South  
 Relatively consistent D2  
 thickness across the unit

Producing Zone

EXHIBIT

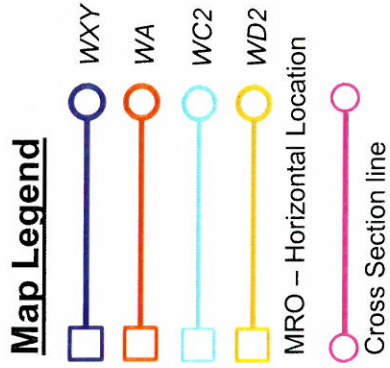
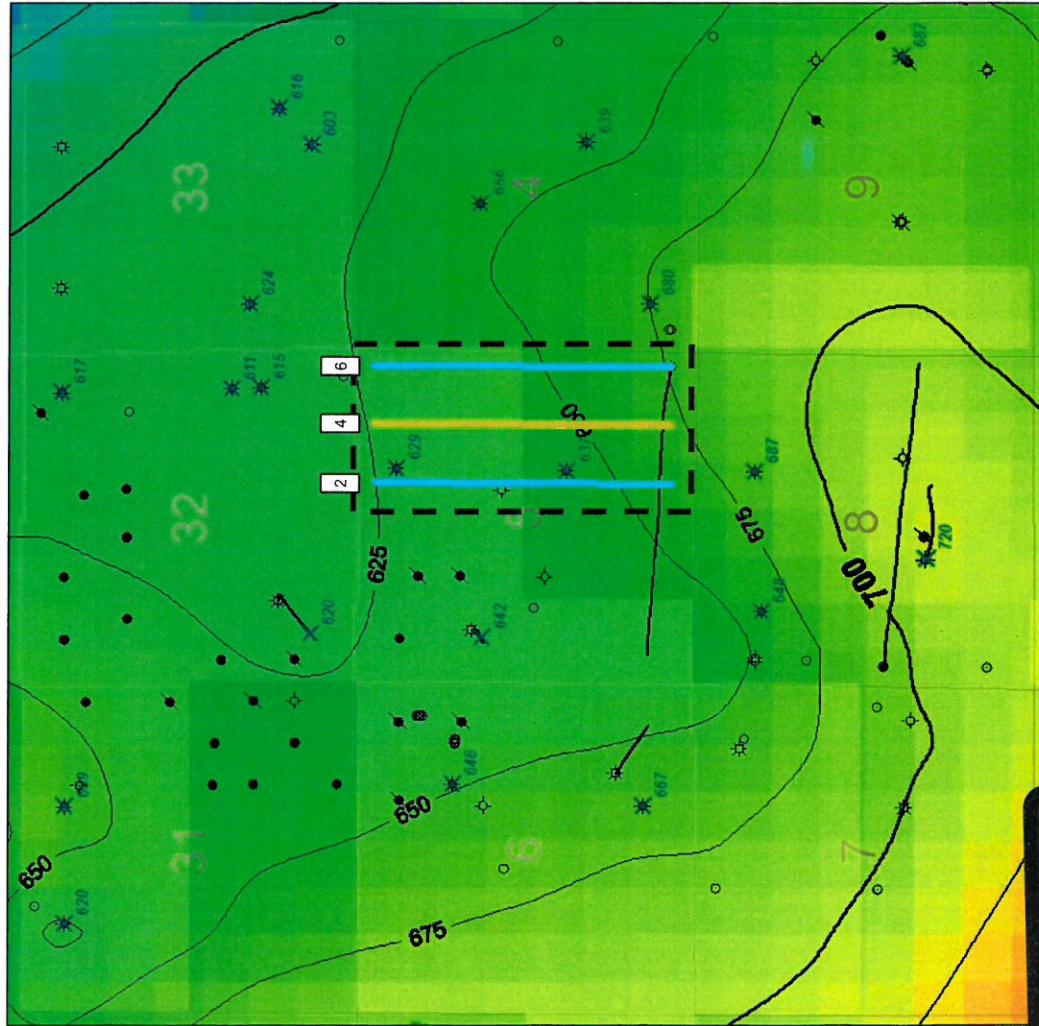
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# **Exhibit 13**



# Achilles 8 Fed Com Unit

Gross Interval Isochore – Wolfcamp C2 to Wolfcamp D3



- 2 Achilles 8 WD Fed Com 8H
- 4 Achilles 8 WD Fed Com 4H
- 6 Achilles 8WD Fed Com 2H

MRO Acreage



Project Area

1 mile

EXHIBIT

13

Tables