

**Before the Oil Conservation Division
Examiner Hearing June 13, 2019**

Case No. 20562

Hades 2 TBC State Com 1H & Hades 2 SB State Com 3H



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

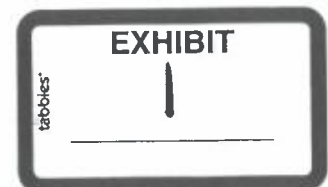
**APPLICATION OF MARATHON
PERMIAN OIL LLC FOR COMPULSORY
POOLING, EDDY COUNTY,
NEW MEXICO**

CASE NO. 20562

APPLICATION

Marathon Oil Permian LLC ("Marathon"), OGRID Number 372098, through its undersigned attorneys, hereby makes an application to the Oil Conservation Division pursuant to the provisions of NMSA (1978), Section 70-2-17, for an order pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 of Section 2, 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.
2. Marathon seeks to dedicate the E/2 of Section 2, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico to form a 320-acre, more or less, spacing unit.
3. Marathon plans to drill the **Hades 2 TBC State Com 1H, Hades 2 FB State Com 2H, Hades 2 SB State Com 3H, Hades 2 FB State Com 4H, and Hades 2 SB State Com 5H** wells to a depth sufficient to test the Bone Spring formation. These wells will be horizontally drilled.
4. These wells will be located within the Culebra Bluff; Bone Spring, South Oil Pool (Pool ID: 15011) and will comply with the Division's setback requirements.



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

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

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

WHEREFORE, Marathon requests this application be set for hearing before an Examiner of the Oil Conservation Division on June 13, 2019, and after notice and hearing as required by law, the Division enter its order:

A. Pooling all mineral interests in a Bone Spring formation underlying a horizontal spacing unit within E/2 of Section 2, 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 the 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.

Respectfully submitted,

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

By: Deana M. Bennett

Deana M. Bennett
Lance D. Hough
Post Office Box 2168
500 Fourth Street NW, Suite 1000
Albuquerque, New Mexico 87103-2168
Telephone: 505.848.1800
dmb@modrall.com
ldh@modrall.com
Attorneys for Applicant

CASE NO. 20562 Application of Marathon Oil Permian LLC for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 of Section 2, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Hades 2 TBC State Com 1H, Hades 2 FB State Com 2H, Hades 2 SB State Com 3H, Hades 2 FB State Com 4H, and Hades 2 SB State Com 5H** wells, to be horizontally drilled. The producing area for the wells will be orthodox. Also to be considered will be the cost of drilling and completing the 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 Northeast of Loving, New Mexico.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6175 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code 15011	³ Pool Name CULEBRA BLUFF; BONE SPRING, SOUTH
⁴ Property Code	⁵ Property Name HADES 2 TBC STATE COM	⁶ Well Number 1H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3068'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	2	23S	28E		521	NORTH	1040	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	2	23S	28E		100	SOUTH	330	EAST	EDDY

¹² Dedicated Acres 318.97	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>Infill Well</p> <p>SHEET 1 OF 3 JOB No. R3982_001_A REV 1 JCS 6/4/2019</p>	<p>CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 626412.61' / Y: 488262.71' B - X: 629075.09' / Y: 488269.73' C - X: 629059.56' / Y: 482925.07' D - X: 626359.90' / Y: 482920.26'</p>	<p>CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 585230.17' / Y: 488203.01' B - X: 587892.62' / Y: 488209.99' C - X: 587876.94' / Y: 482865.46' D - X: 585177.32' / Y: 482860.89'</p>	<p>" OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>
	<p>SURFACE HOLE LOCATION 521' FNL 1040' FEL, SECTION 2 NAD 83, SPCS NM EAST X: 628033.97' / Y: 487746.10' LAT: 32.34057311N / LON: 104.05261441W NAD 27, SPCS NM EAST X: 586851.50' / Y: 487686.39' LAT: 32.34045226N / LON: 104.05211888W</p>		
	<p>KICK OFF POINT 100' FNL 330' FEL, SECTION 2 NAD 83, SPCS NM EAST X: 628744.80' / Y: 488168.86' LAT: 32.34173005N / LON: 104.05030919W NAD 27, SPCS NM EAST X: 587562.33' / Y: 488109.13' LAT: 32.34160918N / LON: 104.04981370W</p>		
	<p>FIRST TAKE POINT 100' FNL 330' FEL, SECTION 2 NAD 83, SPCS NM EAST X: 628744.80' / Y: 488168.86' LAT: 32.34173005N / LON: 104.05030919W NAD 27, SPCS NM EAST X: 587562.33' / Y: 488109.13' LAT: 32.34160918N / LON: 104.04981370W</p>		
<p>LAST TAKE POINT/BOTTOM HOLE LOCATION 100' FSL 330' FEL, SECTION 2 NAD 83, SPCS NM EAST X: 628729.85' / Y: 483024.49' LAT: 32.32758917N / LON: 104.05040160W NAD 27, SPCS NM EAST X: 587547.24' / Y: 482964.88' LAT: 32.32746818N / LON: 104.04990662W</p>			
<p>"SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>JUNE 4, 2019 Date of Survey</p> <p>Signature and Seal of Professional Surveyor: </p> <p>Certificate Number LLOYD P. SHORT 21653</p>			

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99977221 Convergence: 00°07'02.70001"



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State of New Mexico
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Form C-102
Revised August 1, 2011
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⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3068'

" Surface Location

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A	2	23S	28E		521	NORTH	1070	EAST	EDDY

" Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	2	23S	28E		100	SOUTH	1019	EAST	EDDY
¹² Dedicated Acres 318.97	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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

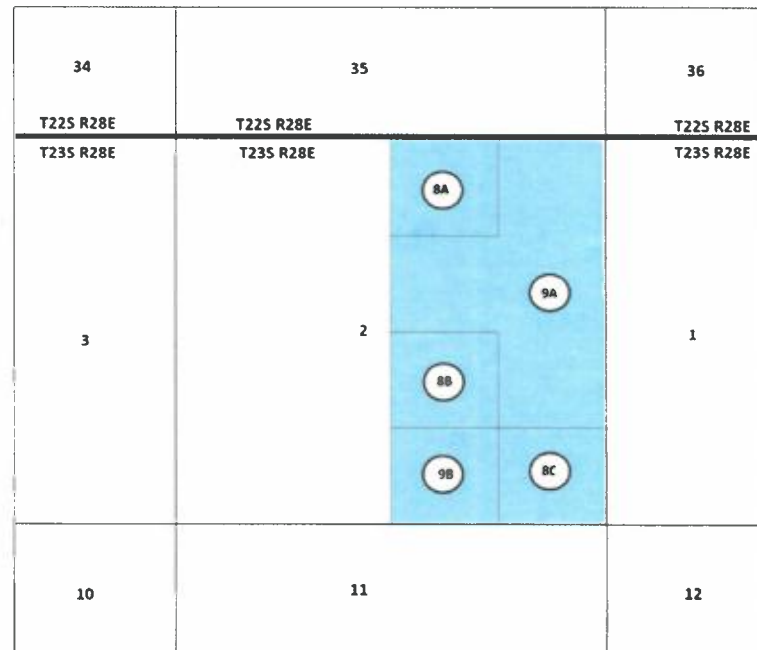
Defining Well KOP/ FIRST TAKE A SECTION 35 521' SHL B SECTION 36 T22S R28E T23S R28E 1002' 1002' 1070' D LAST TAKE/ BHL C SECTION 11 SECTION 12 1019' 100'	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 626412.61' / Y: 488262.71' B - X: 629075.09' / Y: 488269.73' C - X: 629059.56' / Y: 482925.07' D - X: 626359.90' / Y: 482920.26'	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 585230.17' / Y: 488203.01' B - X: 587892.62' / Y: 488209.99' C - X: 587876.94' / Y: 482865.46' D - X: 585177.32' / Y: 482860.69'	" OPERATOR CERTIFICATION <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 _____
" SURVEYOR CERTIFICATION <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> JUNE 4, 2019 Date of Survey _____ Signature and Seal of Professional Surveyor _____ Certificate Number LLOYD P. SHORT 21653			

Distances/areas relative to NAD 83 Combined Scale Factor: 0.99977221 Convergence: 00°07'02.70001"



Lease Tract Map
Hades 2 TBC State Com 1H & Hades 2 SB State Com 3H
E/2 of Section 2, T23S-R28E – 320 acres

- Tract 8A: VB-0407
- Tract 8B: VB-0407
- Tract 8C: VB-0407
- Tract 9A: VB-2460
- Tract 9B: VB-2460



Summary of Interests

Hades 2 TBC State Com 1H & Hades 2 SB State Com 3H
E/2 of Section 2, T23S-R28E – 320 acres

<u>Committed Working Interest:</u>	81.25%
Marathon Oil Permian LLC	81.25%
 <u>Uncommitted Working Interest:</u>	 18.75%
Nadel & Gussman Capitan, LLC	0.75%
MRC Delaware Resources, LLC	16.50%
MRC Explorers Resources, LLC	0.75%
MRC Spiral Resources, LLC	0.75%



Jeffrey Broussard
Landman



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

March 26, 2019

VIA CERTIFIED MAIL RETURN RECEIPT REQUESTED
7018 0360 0000 7549 5852

MRC Delaware Resources, LLC
One Lincoln Center
5400 LBJ Freeway, Suite 1500
Dallas, Texas 75240

Re: Hades 2 State Com 1H, 2H, 3H, 4H and 5H Well Proposals
E/2 of Section 2, Township 23 South, Range 28 East
Eddy County, New Mexico

Dear MRC Delaware Resources, LLC:

Marathon Oil Permian LLC ("Marathon") proposes the drilling of the following wells located in Section 2, 23S-28E, Eddy, New Mexico, all to be drilled from one surface pad location.

Well Name	SHL	BHL	Proration Unit	Target TVD	Est. MD
Hades 2 TBC State Com 1H	1050' FEL & 400' FNL	330' FEL & 100' FSL	E/2 of Sec. 2	8,746'	14,110'
Hades 2 FB State Com 2H	1080' FEL & 400' FNL	990' FEL & 100' FSL	E/2 of Sec. 2	7,432'	12,772'
Hades 2 SB State Com 3H	1110' FEL & 400' FNL	1000' FEL & 100' FSL	E/2 of Sec. 2	8,368'	13,707'
Hades 2 FB State Com 4H	1140' FEL & 400' FNL	2310' FEL & 100' FSL	E/2 of Sec. 2	7,417'	12,860'
Hades 2 SB State Com 5H	1170' FEL & 400' FNL	2310' FEL & 100' FSL	E/2 of Sec. 2	8,343'	13,770'

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 2, 23S-28E, covering from the top of the Bone Spring Formation to the base of the Bone Spring 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 April 26, 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

_____ MRC Delaware Resources, LLC elects to participate in the drilling, completing, and equipping of the Hades 2 TBC State Com 1H.

_____ MRC Delaware Resources, LLC elects NOT to participate in the drilling, completing, and equipping of the Hades 2 TBC State Com 1H.

_____ MRC Delaware Resources, LLC elects to participate in the drilling, completing, and equipping of the Hades 2 FB State Com 2H.

_____ MRC Delaware Resources, LLC elects NOT to participate in the drilling, completing, and equipping of the Hades 2 FB State Com 2H.

_____ MRC Delaware Resources, LLC elects to participate in the drilling, completing, and equipping of the Hades 2 SB State Com 3H.

_____ MRC Delaware Resources, LLC elects NOT to participate in the drilling, completing, and equipping of the Hades 2 SB State Com 3H.

_____ MRC Delaware Resources, LLC elects to participate in the drilling, completing, and equipping of the Hades 2 FB State Com 4H.

_____ MRC Delaware Resources, LLC elects NOT to participate in the drilling, completing, and equipping of the Hades 2 FB State Com 4H.

_____ MRC Delaware Resources, LLC elects to participate in the drilling, completing, and equipping of the Hades 2 SB State Com 5H.

_____ MRC Delaware Resources, LLC elects NOT to participate in the drilling, completing, and equipping of the Hades 2 SB State Com 5H.

MRC Delaware Resources, LLC

By: _____

Print Name: _____

Title: _____

Date: _____

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

DATE 5/10/2019
 DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD
 COMPLETION PREPARED BY JOSH SHANNON
 FACILITIES PREPARED BY 0
 ARTIFICIAL LIFT PREPARED BY 0

Asset Team PERMIAN
 Field CULEBRA BLUFF; B1 FORMATION: 3RD BONE SPRINGS WILDCAT EXPLORATION
 Lease/Facility Hades 2 TBC State Com 3H DEVELOPMENT RECOMPLETION
 Location EDDY COUNTY X EXPLOITATION WORKOVER
 Prospect MALAGA

Est Total Depth 14,110 Est Drilling Days Est Completion Days 5.5

LOCATION COST - INTANGIBLE

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

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	40,000
7012050	Intermediate Casing 1	66,000
7012050	Intermediate Casing 2	-
7012050	Production Casing	244,000
7012050	Drig Liner Hanger, Tieback Eq & Csg Accessories	10,000
7012550	Drilling Wellhead Equipment	50,000
7012040	Casing & Tubing Access	24,000
7012270	Miscellaneous MRO Materials	5,000
TOTAL DRILLING - TANGIBLE		467,000

DRILLING COST - INTANGIBLE

7019200	Drilling Rig Mob/Demob	26,000
7019220	Drilling Rig - day work/footage	388,800
7019040	Directional Drilling Services	120,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	-
7019020	Cement and Cementing Service Production	110,000
7019140	Mud Fluids & Services	58,400
7012310	Solids Control equipment	26,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	44,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging-geosteering	11,000
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	17,200
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	57,600
7018150	Rig Equipment and Misc.	7,200
7001110	Telecommunications Services	5,000
7001120	Consulting Services	67,680
7001400	Safety and Environmental	23,040
7018120	Rental Buildings (trailers)	11,520
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	132,751
TOTAL DRILLING - INTANGIBLE		\$1,562,191

TOTAL DRILLING - INTANGIBLE

\$1,562,191

TOTAL DRILLING COST

\$2,029,191

COMPLETION - TANGIBLE

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

TOTAL COMPLETION - TANGIBLE

\$15,000



Asset Team PERMIAN
 Field CULEBRA BLUFF; B1 FORMATION: 3RD BONE SPRINGS
 Lease/Facility Hades 2 TBC State Com 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)	425,000
7019320	Fracturing Services	1,784,200
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	208,000
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. BH, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	70,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	120,000
7019300	Frack Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental (w/o operator, frac tanks, lightplants)	75,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	220,700
TOTAL COMPLETION - INTANGIBLE		\$3,512,900

TOTAL COMPLETION COST \$3,527,900

SURFACE EQUIPMENT - TANGIBLE

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

TOTAL SURFACE EQUIPMENT COST \$ 791,507

ARTIFICIAL LIFT

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

TOTAL ARTIFICIAL LIFT COST \$ 110,000

SUMMARY OF ESTIMATED DRILLING WELL COSTS

	TOTAL COST
TOTAL LOCATION COST	\$ 67,200
TOTAL DRILLING COST	\$ 2,029,191
TOTAL COMPLETIONS COST	\$ 3,527,900
TOTAL SURFACE EQUIPMENT COST	\$ 791,507
TOTAL ARTIFICIAL LIFT COST	\$ 110,000
GRAND TOTAL COST	\$6,525,798

Participant's Approval

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

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

DATE 5/10/2019
 DRILLING & LOCATION PREPARED BY MATTHEW RUGAARD
 COMPLETION PREPARED BY JOSH SHANNON
 FACILITIES PREPARED BY 0
 ARTIFICIAL LIFT PREPARED BY 0

Asset Team	PERMIAN		
Field	CULEBRA BLUFF; B1	FORMATION: 2ND BONE SPRINGS	WILDCAT
Lease/Facility	Mades 2 SB State Com 3H		DEVELOPMENT
Location	EDDY COUNTY		X EXPLOITATION
Prospect	MALAGA		WORKOVER

Est Total Depth 13 707 Est Drilling Days Est Completion Days 5.5

LOCATION COST - INTANGIBLE

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

DRILLING COST - TANGIBLE

7012050	Conductor Pipe	28,000
7012050	Surface Casing	40,000
7012050	Intermediate Casing 1	66,000
7012050	Intermediate Casing 2	-
7012050	Production Casing	213,000
7012050	Drig Liner Hanger, Tieback Eq & Csg Accessories	10,000
7012550	Drilling Wellhead Equipment	50,000
7012040	Casing & Tubing Access	24,000
7012270	Miscellaneous MRO Materials	5,000
TOTAL DRILLING - TANGIBLE		436,000

DRILLING COST - INTANGIBLE

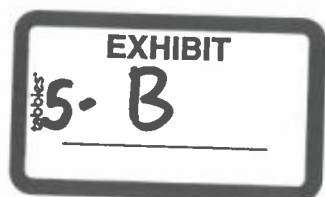
7019200	Drilling Rig Mob/Demob	26,000
7019220	Drilling Rig - day work/footage	351,000
7019040	Directional Drilling Services	105,000
7019020	Cement and Cementing Service Surface	15,000
7019020	Cement and Cementing Service Intermediate 1	25,000
7019020	Cement and Cementing Service Intermediate 2	-
7019020	Cement and Cementing Service Production	110,000
7019140	Mud Fluids & Services	57,000
7012310	Solids Control equipment	23,000
7012020	Bits	70,000
7019010	Casing Crew and Services	30,000
7016350	Fuel (Rig)	40,000
7019140	Fuel (Mud)	18,000
7001460	Water (non potable)	25,000
7012350	Water (potable)	5,000
7019000	Well Logging Services	-
7019150	Mud Logging/geosteering	9,000
7019250	Stabilizers, Hole Openers, Underreamers (OH 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	16,500
7019350	Well Services - Well/Wellhead Services	10,000
7018150	Rental Tools and Equipment (surface rentals)	52,000
7018150	Rig Equipment and Misc.	6,500
7001110	Telecommunications Services	5,000
7001120	Consulting Services	61,100
7001400	Safety and Environmental	20,800
7018120	Rental Buildings (trailers)	10,400
7019310	Coring (sidewalls & analysis)	-
7011010	7% Contingency & Taxes	124,971
TOTAL DRILLING - INTANGIBLE		\$1,474,271

TOTAL DRILLING COST

\$1,910,271

COMPLETION - TANGIBLE

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



Asset Team PERMIAN
 Field CULEBRA BLUFF; B1 FORMATION: 2ND BONE SPRINGS
 Lease/Facility Hades 2 SB State Com 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)	425,000
7019320	Fracturing Services	1,784,200
7019330	Perforating	175,000
7019360	Wireline Services	15,000
7001460	Water Hauling & Disposal (frac fluids)	218,000
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. Bt, BHA)	-
7000030	Contract Labor - general	35,000
7001110	Telecommunications Services	70,000
7001400	Safety and Environmental	-
7001120	Consulting Services	60,000
7018150	Zipper Manifold	120,000
7019300	Frack Stack Rentals	45,000
7016190	Freight (Transportation Services)	-
7018150	Equipment Rental (w/o operator, frac tanks, lightplants)	75,000
7018120	Rental Buildings (trailers)	15,000
7000030	Contract Labor - Pumping (pump-down pumps)	30,000
7011010	8% Contingency & Taxes	220,700
TOTAL COMPLETION - INTANGIBLE		\$3,522,900

TOTAL COMPLETION COST

\$3,537,900

SURFACE EQUIPMENT - TANGIBLE

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

TOTAL SURFACE EQUIPMENT COST

\$ 791,507

ARTIFICIAL LIFT

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

TOTAL ARTIFICIAL LIFT COST

\$ 110,000

SUMMARY OF ESTIMATED DRILLING WELL COSTS

TOTAL LOCATION COST	\$ 67,200
TOTAL DRILLING COST	\$ 1,910,271
TOTAL COMPLETIONS COST	\$ 3,537,900
TOTAL SURFACE EQUIPMENT COST	\$ 791,507
TOTAL ARTIFICIAL LIFT COST	\$ 110,000
GRAND TOTAL COST	\$6,416,878

Participant's Approval

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

**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. 20562
(HADES)**

AFFIDAVIT

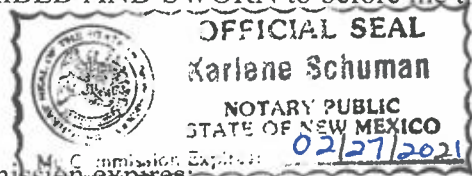
STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

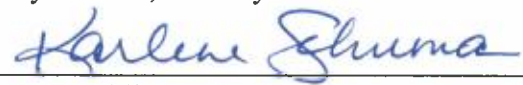
Deana M. Bennett, attorney in fact and authorized representative of Marathon Oil Permian LLC, the Applicant herein, being first duly sworn, upon oath, states that the above-referenced Application was sent under a notice letter and that proof of receipt is attached hereto.



Deana M. Bennett

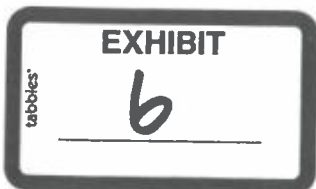
SUBSCRIBED AND SWORN to before me this 11th day of June, 2019 by Deana M. Bennett.





Notary Public

My commission expires: _____



Zina Crum
Modrall Sperling
500 4th Street NW
Suite 1000
Albuquerque NM 87102

PS Form 3877

Type of Mailing: CERTIFIED MAIL
05/23/2019



Firm Mailing Book ID: 167802

Line	USPS Article Number	Name, Street, City, State, Zip	Postage	Service Fee	RR Fee	Rest.Del.Fee	Reference Contents
1	9314 8699 0430 0059 5146 20	Devon Energy Production Company LP 33W. Sheridan Ave Oklahoma City OK 73102	\$1.15	\$3.50	\$1.60	\$0.00	81363-0124 Hades Notice
2	9314 8699 0430 0059 5146 37	Marathon Oil Permian LLC 5555 San Felipe Street Houston TX 77056	\$1.15	\$3.50	\$1.60	\$0.00	81363-0124 Hades Notice
3	9314 8699 0430 0059 5146 44	MRC Delaware Resources LLC One Lincoln Center 5400 LBJ Freeway, Suite 1500 Dallas TX 75240	\$1.15	\$3.50	\$1.60	\$0.00	81363-0124 Hades Notice
4	9314 8699 0430 0059 5146 51	MRC Explorers Resources LLC One Lincoln Center 5400 LBJ Freeway, Suite 1500 Dallas TX 75240	\$1.15	\$3.50	\$1.60	\$0.00	81363-0124 Hades Notice
5	9314 8699 0430 0059 5146 68	MRC Spiral Resources LLC One Lincoln Center 5400 LBJ Freeway, Suite 1500 Dallas TX 75240	\$1.15	\$3.50	\$1.60	\$0.00	81363-0124 Hades Notice
Totals:			\$5.75	\$17.50	\$8.00	\$0.00	
Grand Total:						\$31.25	

MAY 23 2019

List Number of Pieces
Listed by Sender

Total Number of Pieces
Received at Post Office

Postmaster:
Name of receiving employee

Dated:

5

Transaction Report Details - CertifiedPro.net

Date Created= 5/23/2019 - 5/24/2019

Generated: 6/11/2019 10:22:31 AM

USPS Article Number	Date created	Reference Number	Name 1	Name 2	Address	City	State	Zip	Mailing Status	Service Options	Mail Delivery Date
9314869904300059514668	2019-05-23 12:29 PM	81363-0124 Hades	MRC Spiral Resources LLC	One Lincoln Center	5400 LBJ Freeway, Suite 1500	Dallas	TX	75240	Undelivered	Return Receipt - Electronic, Certified Mail	
9314869904300059514651	2019-05-23 12:29 PM	81363-0124 Hades	MRC Explorers Resources LLC	One Lincoln Center	5400 LBJ Freeway, Suite 1500	Dallas	TX	75240	Delivered	Return Receipt - Electronic, Certified Mail	05-28-2019
9314869904300059514644	2019-05-23 12:29 PM	81363-0124 Hades	MRC Delaware Resources LLC	One Lincoln Center	5400 LBJ Freeway, Suite 1500	Dallas	TX	75240	Delivered	Return Receipt - Electronic, Certified Mail	05-28-2019
9314869904300059514637	2019-05-23 12:29 PM	81363-0124 Hades	Marathon Oil Permian LLC		5555 San Felipe Street	Houston	TX	77056	Delivered	Return Receipt - Electronic, Certified Mail	05-28-2019
9314869904300059514620	2019-05-23 12:29 PM	81363-0124 Hades	Devon Energy Production Comp		33W. Sheridan Ave	Oklahoma	OK	73102	Delivered	Return Receipt - Electronic, Certified Mail	05-28-2019

CARLSBAD
CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

Ad No.
0001287165

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

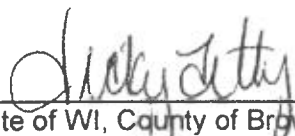
ALBUQUERQUE NM 87102

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:

05/30/19

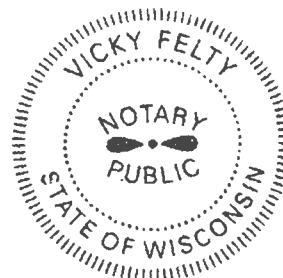

Legal Clerk

Subscribed and sworn before me this
30th of May 2019.


State of WI, County of Brown
NOTARY PUBLIC

9-19-21
My Commission Expires

CASE NO. 20562: Notice to all affected parties, as well as the heirs and devisees of, **DEVON ENERGY PRODUCTION COMPANY, LP, MRC DELAWARE RESOURCES LLC, MRC EXPLORERS RESOURCES LLC, MRC SPIRAL RESOURCES, LLC**, of Marathon Oil Permian LLC's application for approval of 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 June 13, 2019. Applicant seeks an order from the Division pooling all uncommitted mineral interests within a Bone Spring horizontal spacing unit underlying the E/2 of Section 2, Township 23 South, Range 28 East, NMPM, Eddy County, New Mexico. This spacing unit will be dedicated to the **Hades 2 TBC State Com 1H, Hades 2 FB State Com 2H, Hades 2 SB State Com 3H, Hades 2 FB State Com 4H, and Hades 2 SB State Com 5H** wells, to be horizontally drilled. The producing area for the wells will be orthodox. Also to be considered will be the cost of drilling and completing the 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 Northeast of Loving, New Mexico.
May 30, 2019



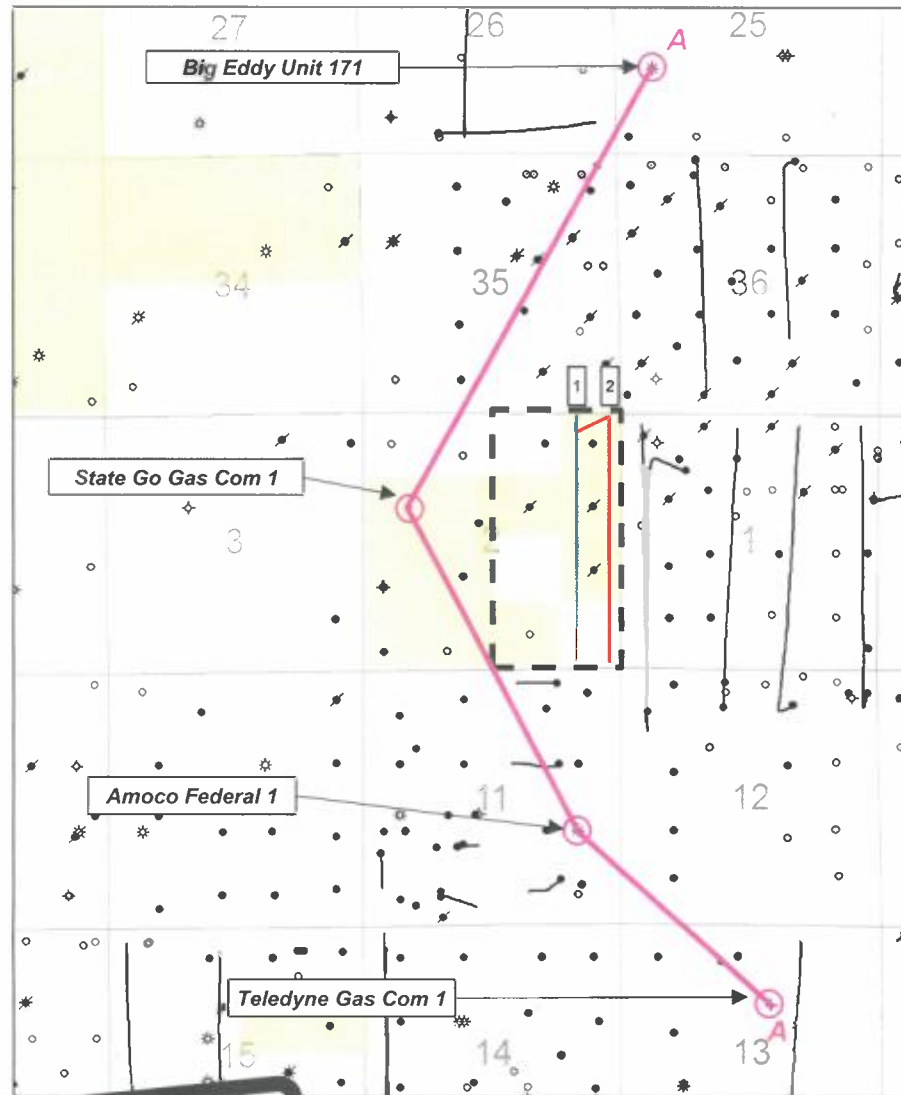
Structure Map – Base of 2nd Bone Spring Sand (TVDSS)



1 mile

Hades 2 State Com Unit

Reference Map for Cross Section



- 1 Hades 2 SB State Com 3H
- 2 Hades 2 TBC State Com 1H


Map Legend


-  SBSG
-  TBC

MRO – Horizontal Location

-  Cross Section line

 MRO Acreage

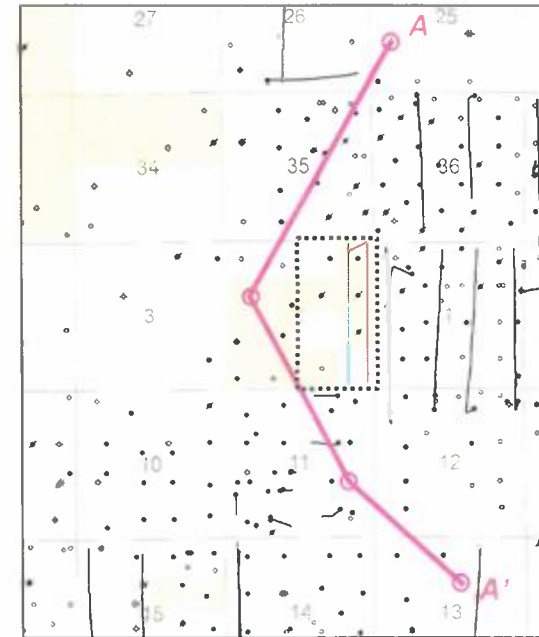
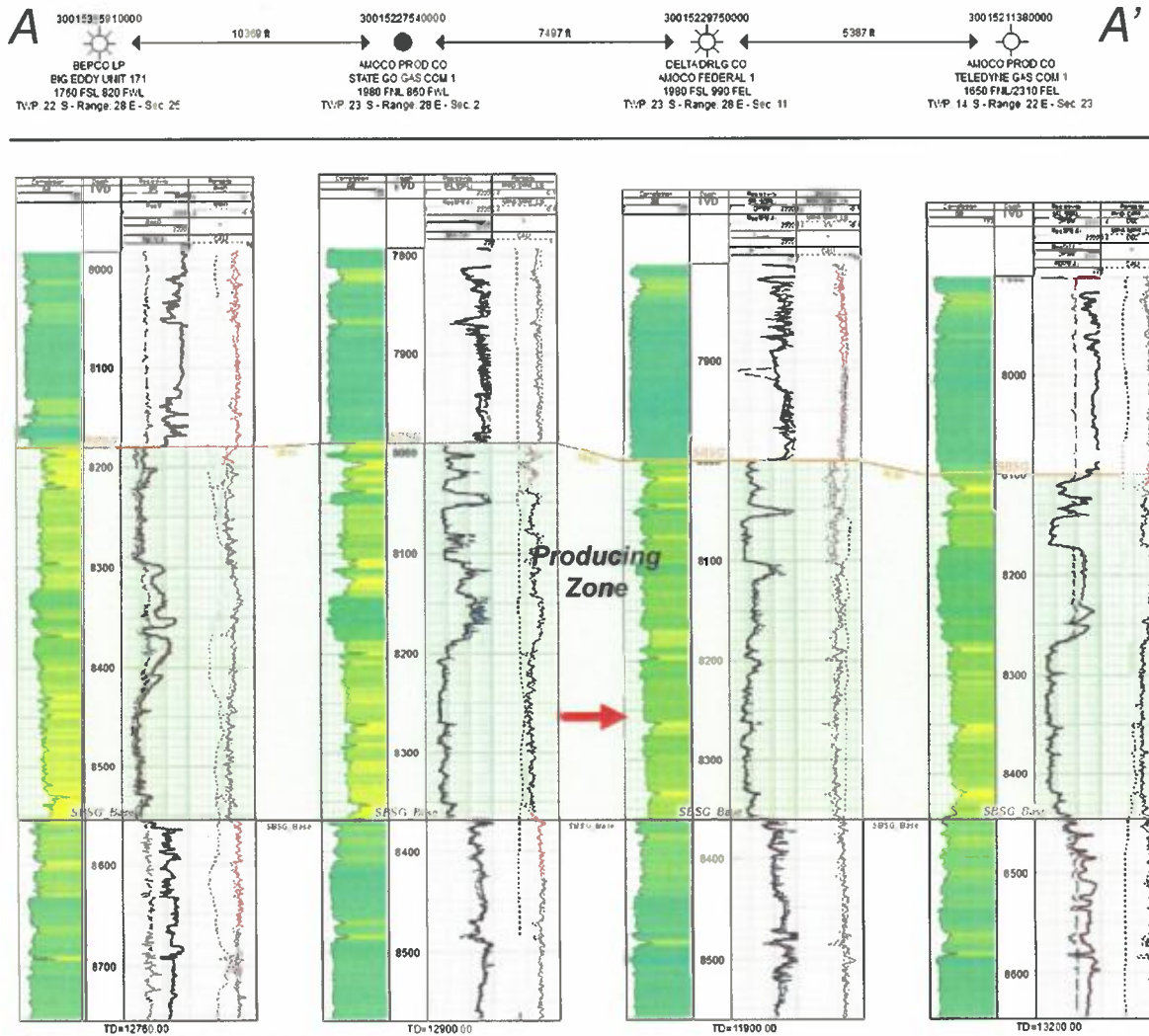
 Project Area

 1 mile

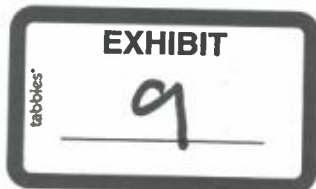


Hades 2 SB State Com 3H

Stratigraphic Cross Section (Base 2nd Bone Spring Sand Datum)

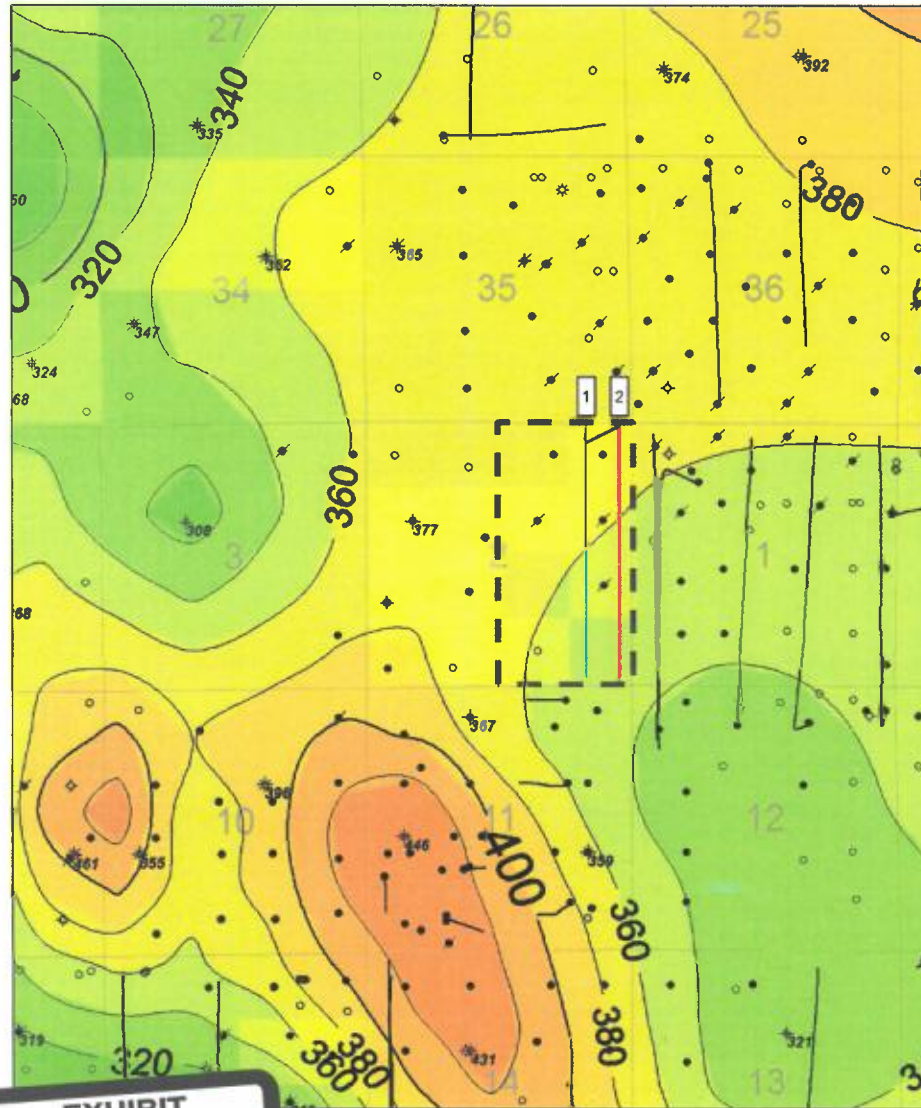


Second Bone Spring Sand
thickness consistent across unit



Hades 2 SB State Com 3H

Gross Interval Isochore – 2nd Bone Spring Sand Top to Base



- 1 Hades 2 SB State Com 3H
- 2 Hades 2 TBC State Com 1H

Map Legend

- SBSG
- TBC

MRO – Horizontal Location

MRO Acreage



Project Area

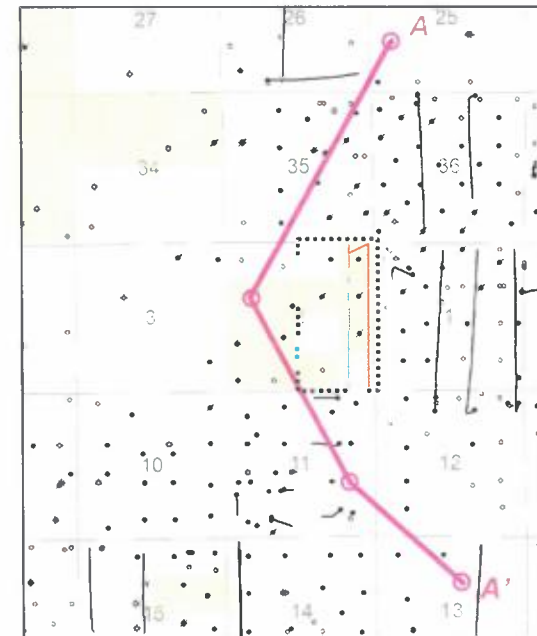
C.I. = 20'



1 mile



Stratigraphic Cross Section (Base 2nd Bone Spring Sand Datum)

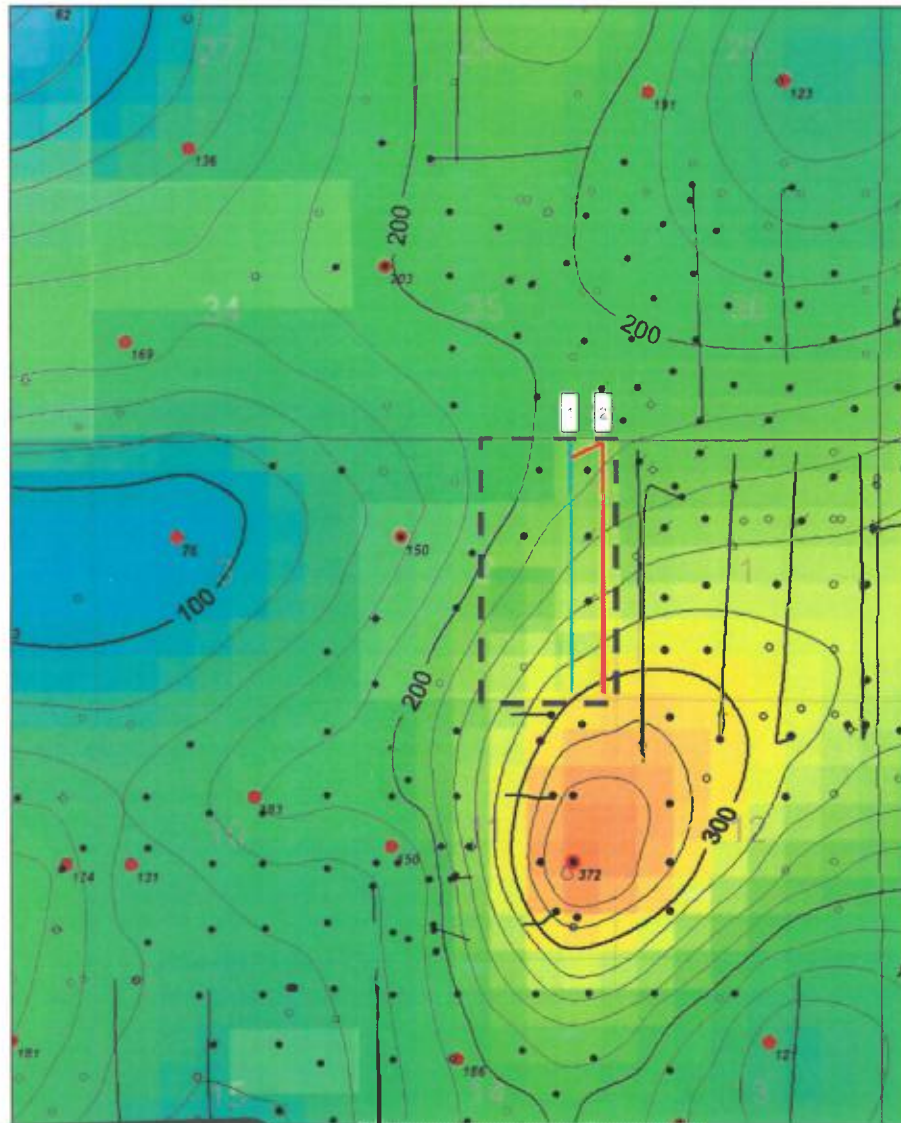


*3rd Bone Spring Carbonate
producing interval thickens from
North to South*



Hades 2 TBC State Com 1H

Base 2nd Bone Spring Sand to Top 3rd Bone Spring Sand, Isochore > 6% Φ



- 1 Hades 2 SB State Com 3H
- 2 Hades 2 TBC State Com 1H

Map Legend



MRO – Horizontal Location

MRO Acreage



1 mile

EXHIBIT

12