

Submit 1 Copy To Appropriate District Office

District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87401
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

NOV 12 2019

OIL CONSERVATION DIVISION

DISTRICT IV-ARTESIA, N.M.

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

WELL API NO. 30-015-46134
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name HADES 2 TBC STATE COM
8. Well Number 1H
9. OGRID Number 372098
10. Pool name or Wildcat CULEBRA BLUFF; BONE SPRING, SOUTH

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator Marathon Oil Permian LLC	
3. Address of Operator 5555 San Felipe St., Houston, TX 77056	
4. Well Location Unit Letter <u>A</u> : <u>521</u> feet from the <u>NORTH</u> line and <u>1040</u> feet from the <u>EAST</u> line Section <u>2</u> Township <u>23S</u> Range <u>28E</u> NMPM County <u>EDDY</u>	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3068' GR	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Marathon Oil Permian LLC requests to make the following changes to the approved APD.

-Change well name from Hades 2 TBC State Com 1H to Hades 2 SB State Com 5H

-Change SHL
From 521' FNL 1040' FEL
To 521' FNL 1070' FEL

-Change casing from 3 string to 2 string.

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	TOC
Surface	17 1/2	13 3/8	54.5	450	470	0
Production Csg	8 3/4	5 1/2	17	13437	2383	2250

Spud Date:

10/23/2019

Rig Release Date:

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

SIGNATURE Adrian Covarrubias TITLE CTR - Technician HES DATE 11/11/2019

Type or print name Adrian Covarrubias E-mail address: acovarrubias@marathonoil.com PHONE: 713-296-3368

For State Use Only

APPROVED BY: Raymond D. Padany TITLE Geologist DATE 11-13-19
Conditions of Approval (if any):

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-46134	² Pool Code 15011	³ Pool Name CULEBRA BLUFF; BONE SPRING, SOUTH
⁴ Property Code 325 766	⁵ Property Name HADES 2 SB STATE COM	⁶ Well Number 5H
⁷ OGRID No. 372098	⁸ Operator Name MARATHON OIL PERMIAN LLC	⁹ Elevation 3070'

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	1070	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
O	2	23S	28E		100	SOUTH	2310	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.

	CORNER COORDINATES NAD 83, SPCS NM EAST A - X: 629075.09' / Y: 488269.73' B - X: 629059.56' / Y: 482925.07' C - X: 626359.90' / Y: 482920.26' D - X: 626386.21' / Y: 485587.65' E - X: 626412.61' / Y: 488262.71'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. 11/11/2019 Signature _____ Date _____ MELISSA SZUDERA Printed Name _____ E-mail Address _____
	CORNER COORDINATES NAD 27, SPCS NM EAST A - X: 587892.62' / Y: 488209.99' B - X: 587876.94' / Y: 482865.46' C - X: 585177.32' / Y: 482860.69' D - X: 585203.71' / Y: 485528.00' E - X: 585230.17' / Y: 488203.01'	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief. NOVEMBER 5, 2019 Date of Survey _____ Signature and Seal of Professional Surveyor _____ Certificate Number _____ DAVID W. MYERS 11403
	SURFACE HOLE LOCATION 521' FNL 1070' FEL, SECTION 2 NAD 83, SPCS NM EAST X: 628003.93' / Y: 487746.09' LAT: 32.34057329N / LON: 104.05271168W NAD 27, SPCS NM EAST X: 588821.48' / Y: 487886.38' LAT: 32.34045243N / LON: 104.05221614W	
	KICK OFF POINT / FIRST TAKE POINT 100' FNL 2310' FEL, SECTION 2 NAD 83, SPCS NM EAST X: 626764.78' / Y: 488163.64' LAT: 32.34172992N / LON: 104.05672047W NAD 27, SPCS NM EAST X: 585582.33' / Y: 488103.93' LAT: 32.34160914N / LON: 104.05622474W	
LAST TAKE POINT/BOTTOM HOLE LOCATION 100' FSL 2310' FEL, SECTION 2 NAD 83, SPCS NM EAST X: 626749.83' / Y: 483020.96' LAT: 32.32759369N / LON: 104.05681185W NAD 27, SPCS NM EAST X: 585567.25' / Y: 482961.37' LAT: 32.32747279N / LON: 104.05631663W		

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

RWP 11-13-19

Marathon Oil Permian LLC

RKB (Precision 601) 25' + GL(3068') @ 3093.00usft

3068.00

Project: Eddy County, New Mexico (NAD27)

Site: Hades 2 SB State Com Pad (Grid)

Well: Hades 2 SB State Com 5H

Wellbore: Wellbore #1

Design: Plan 3

Rig:

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

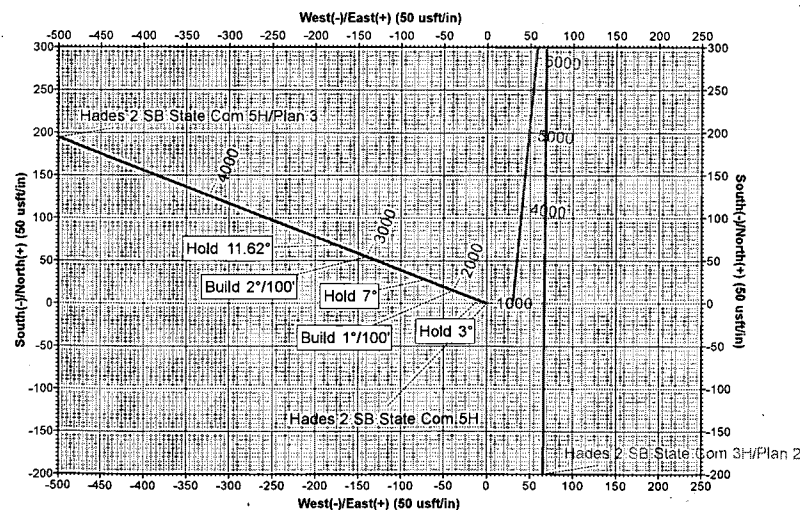
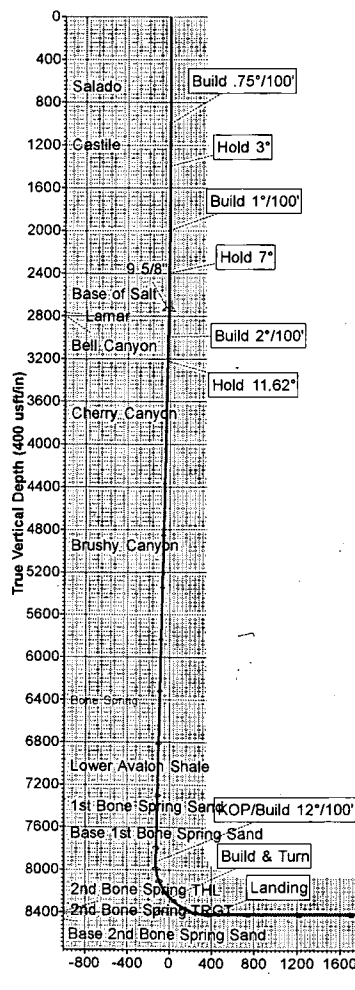


Azimuths to Grid North
True North: -0.15°
Magnetic North: 6.93°

Magnetic Field
Strength: 47882.1nT
Dip Angle: 60.07°
Date: 10/18/2019
Model: HDGM_2019

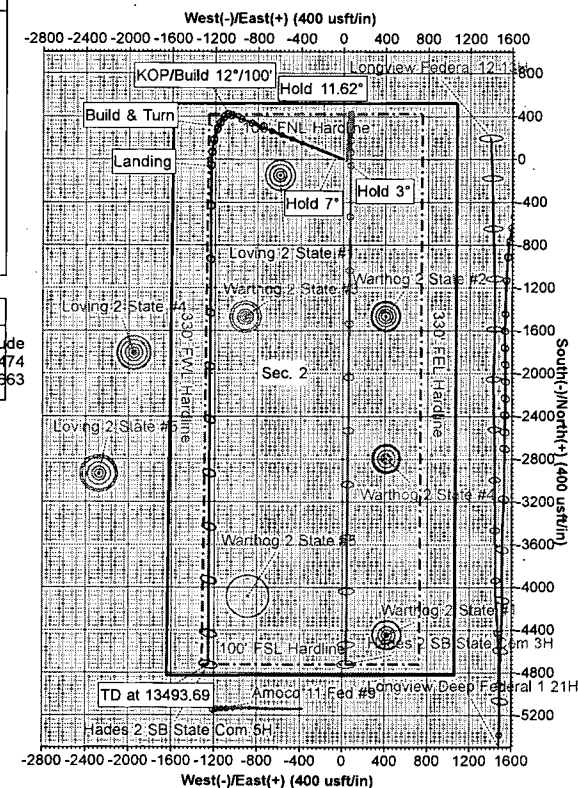
WELL DETAILS										
3068.00										
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
	0.00	0.00	487686.32	586821.45	32.34045228	-104.05221616				
SECTION DETAILS										
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	Build .75°/100'	
1400.00	3.00	291.25	1399.82	3.79	-9.76	0.75	291.25	-1.16	Hold 3°	
2000.00	3.00	291.25	1998.99	15.18	-39.02	0.00	0.00	-4.66	Build 1°/100'	
2400.00	7.00	291.25	2397.39	27.81	-71.51	1.00	0.00	-8.53	Hold 7°	
3000.00	7.00	291.25	2992.92	54.31	-139.66	0.00	0.00	-16.66	Build 2°/100'	
3231.00	11.62	291.25	3220.82	67.85	-174.48	2.00	0.00	-20.82	Hold 11.62°	
8033.89	11.62	291.25	7925.27	418.47	-1076.10	0.00	0.00	-128.38	KOP/Build 12°/100'	
8412.37	45.00	205.00	8262.28	305.01	-1173.32	12.00	-97.84	6.23	Build & Turn	
8829.70	90.00	180.17	8420.00	-60.98	-1240.63	12.00	-33.20	377.23	Landing	
13493.69	90.00	180.17	8420.00	-4724.95	-1254.20	0.00	0.00	4888.58	TD at 13493.69	

DESIGN TARGET DETAILS						
Name	+N-S	+E-W	Northing	Easting	Latitude	Longitude
5H KOP/FTP (100' FNL - 1002' FEL)	417.61	-1239.12	488103.93	585582.33	32.34160913	-104.05622474
5H LTP/BHL (100' FSL - 1019' FEL)	-4724.95	-1254.20	482961.37	585567.25	32.32747278	-104.05631663



Target Line

8420' TVD @ 0' VS 90°



HALLIBURTON | Sperry Drilling

Marathon Oil Permian LLC

Eddy County, New Mexico (NAD27) Hades 2 SB State Com Pad (Grid)

API#

Hades 2 SB State Com 5H

SHL: (521' FNL - 1070' FEL)

Wellbore #1

Plan: Plan 3

Sperry Drilling Services

Combo Report

01 November, 2019

Well Coordinates: 32.34045228
-104.05221617

NAD 1927 (NADCON CONUS)
New Mexico East 3001
487,686.32 N
586,821.45 E

Ground Level: 3,068.00 usft

Local Coordinate Origin:

Centered on Well Hades 2 SB State Com 5H

Viewing Datum:

RKB (Precision 601) 25' + GL(3068') @ 3093.00usft

TVDs to System:

N

North Reference:

Grid

Unit System:

Midcon (2 decimal)

Version: 5000.15 Build: 91

Report Version: Midcon Combo v1.14

HALLIBURTON

Plan Report for Hades 2 SB State Com 5H - Plan 3

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Toolface Angle (°)	Comments
				Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)				
0.00	0.00	0.00	0.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
592.00	0.00	0.00	592.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	Salado
600.00	0.00	0.00	600.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
700.00	0.00	0.00	700.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
800.00	0.00	0.00	800.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
900.00	0.00	0.00	900.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00 N	0.00 E	487,686.32	586,821.45	0.00	0.00	0.00	Build 75°/100'
1,100.00	0.75	291.25	1,100.00	0.24 N	0.61 W	487,686.56	586,820.84	0.75	-0.07	291.25	
1,138.01	1.04	291.25	1,138.00	0.45 N	1.16 W	487,686.77	586,820.29	0.75	-0.14	0.00	Castile
1,200.00	1.50	291.25	1,199.98	0.95 N	2.44 W	487,687.27	586,819.01	0.75	-0.29	0.00	
1,300.00	2.25	291.25	1,299.92	2.13 N	5.49 W	487,688.45	586,815.96	0.75	-0.65	0.00	
1,400.00	3.00	291.25	1,399.82	3.79 N	9.76 W	487,690.11	586,811.69	0.75	-1.16	0.00	Hold 3°
1,500.00	3.00	291.25	1,499.68	5.69 N	14.64 W	487,692.01	586,806.81	0.00	-1.75	0.00	
1,600.00	3.00	291.25	1,599.54	7.59 N	19.51 W	487,693.91	586,801.94	0.00	-2.33	0.00	
1,700.00	3.00	291.25	1,699.41	9.49 N	24.39 W	487,695.81	586,797.06	0.00	-2.91	0.00	
1,800.00	3.00	291.25	1,799.27	11.38 N	29.27 W	487,697.70	586,792.18	0.00	-3.49	0.00	
1,900.00	3.00	291.25	1,899.13	13.28 N	34.15 W	487,699.60	586,787.30	0.00	-4.07	0.00	
2,000.00	3.00	291.25	1,998.99	15.18 N	39.02 W	487,701.50	586,782.43	0.00	-4.66	0.00	Build 1°/100'
2,100.00	4.00	291.25	2,098.81	17.39 N	44.71 W	487,703.71	586,776.74	1.00	-5.33	0.00	
2,200.00	5.00	291.25	2,198.50	20.23 N	52.03 W	487,706.55	586,769.42	1.00	-6.21	0.00	
2,300.00	6.00	291.25	2,298.04	23.71 N	60.96 W	487,710.03	586,760.49	1.00	-7.27	0.00	
2,400.00	7.00	291.25	2,397.39	27.81 N	71.51 W	487,714.13	586,749.94	1.00	-8.53	0.00	Hold 7°
2,500.00	7.00	291.25	2,496.65	32.23 N	82.87 W	487,718.55	586,738.58	0.00	-9.89	0.00	
2,536.63	7.00	291.25	2,533.00	33.84 N	87.03 W	487,720.16	586,734.42	0.00	-10.38	0.00	Base of Salt
2,600.00	7.00	291.25	2,595.90	36.64 N	94.23 W	487,722.96	586,727.22	0.00	-11.24	0.00	
2,700.00	7.00	291.25	2,695.16	41.06 N	105.58 W	487,727.38	586,715.87	0.00	-12.60	0.00	
2,755.26	7.00	291.25	2,750.00	43.50 N	111.86 W	487,729.82	586,709.59	0.00	-13.35	0.00	9 5/8"
2,774.40	7.00	291.25	2,769.00	44.35 N	114.03 W	487,730.67	586,707.42	0.00	-13.60	0.00	Lamar
2,800.00	7.00	291.25	2,794.41	45.48 N	116.94 W	487,731.80	586,704.51	0.00	-13.95	0.00	
2,802.61	7.00	291.25	2,797.00	45.59 N	117.24 W	487,731.91	586,704.21	0.00	-13.99	0.00	Bell Canyon
2,900.00	7.00	291.25	2,893.67	49.89 N	128.30 W	487,736.21	586,693.15	0.00	-15.31	0.00	

Plan Report for Hades 2 SB State Com 5H - Plan 3

Audit Info

North Reference Sheet for Hades 2 SB State Com Pad (Grid) - Hades 2 SB State Com 5H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to RKB (Precision 601) 25' + GL(3068') @ 3093.00usft. Northing and Easting are relative to Hades 2 SB State Com 5H

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.3333333°, Longitude Origin:0.0000000°, Latitude Origin:0.0000000°

False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 0.99991772

Grid Coordinates of Well: 487,686.32 usft N, 586,821.45 usft E

Geographical Coordinates of Well: 32.34045228, -104.05221617

Grid Convergence at Surface is: 0.15°

Based upon Minimum Curvature type calculations, at a Measured Depth of 13,493.69usft
the Bottom Hole Displacement is 4,888.60usft in the Direction of 194.87° (Grid).

Magnetic Convergence at surface is: -6.93° (18 October 2019, , HDGM_2019)

