

**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 Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form C-101  
August 1, 2011

Permit 305388

**APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702		2. OGRID Number 7377
		3. API Number 30-015-49177
4. Property Code 332043	5. Property Name War Horse 3433 State Com	6. Well No. 401H

**7. Surface Location**

UL - Lot M	Section 34	Township 16S	Range 27E	Lot Idn M	Feet From 288	N/S Line S	Feet From 808	E/W Line W	County Eddy
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**8. Proposed Bottom Hole Location**

UL - Lot M	Section 33	Township 16S	Range 27E	Lot Idn M	Feet From 338	N/S Line S	Feet From 100	E/W Line W	County Eddy
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**9. Pool Information**

WC 015 G-5 1627S35M ABO	98312
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**Additional Well Information**

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3422
16. Multiple N	17. Proposed Depth 11745	18. Formation Abo	19. Contractor	20. Spud Date 3/21/2022
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	36	1100	470	0
Prod	8.75	5.5	20	11745	1890	0

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Whichever is available

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.	<b>OIL CONSERVATION DIVISION</b>	
Signature:		
Printed Name: Electronically filed by Kay Maddox	Approved By: Katherine Pickford	
Title: Regulatory Agent	Title: Geoscientist	
Email Address: kay_maddox@eogresources.com	Approved Date: 12/28/2021	Expiration Date: 12/28/2023
Date: 12/21/2021	Phone: 432-686-3658	Conditions of Approval Attached

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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

District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015- 49177</b>	<sup>2</sup> Pool Code <b>98312</b>	<sup>3</sup> Pool Name <del>Wildcat; Abo</del> <b>WC 015 G-5 1627S35M ABO</b>
<sup>4</sup> Property Code <b>332043</b>	<sup>5</sup> Property Name <b>WAR HORSE 3433 STATE COM</b>	
<sup>7</sup> OGRID No. <b>7377</b>	<sup>8</sup> Operator Name <b>EOG RESOURCES, INC.</b>	<sup>6</sup> Well Number <b>401H</b>
		<sup>9</sup> Elevation <b>3422'</b>

<sup>10</sup>Surface Location

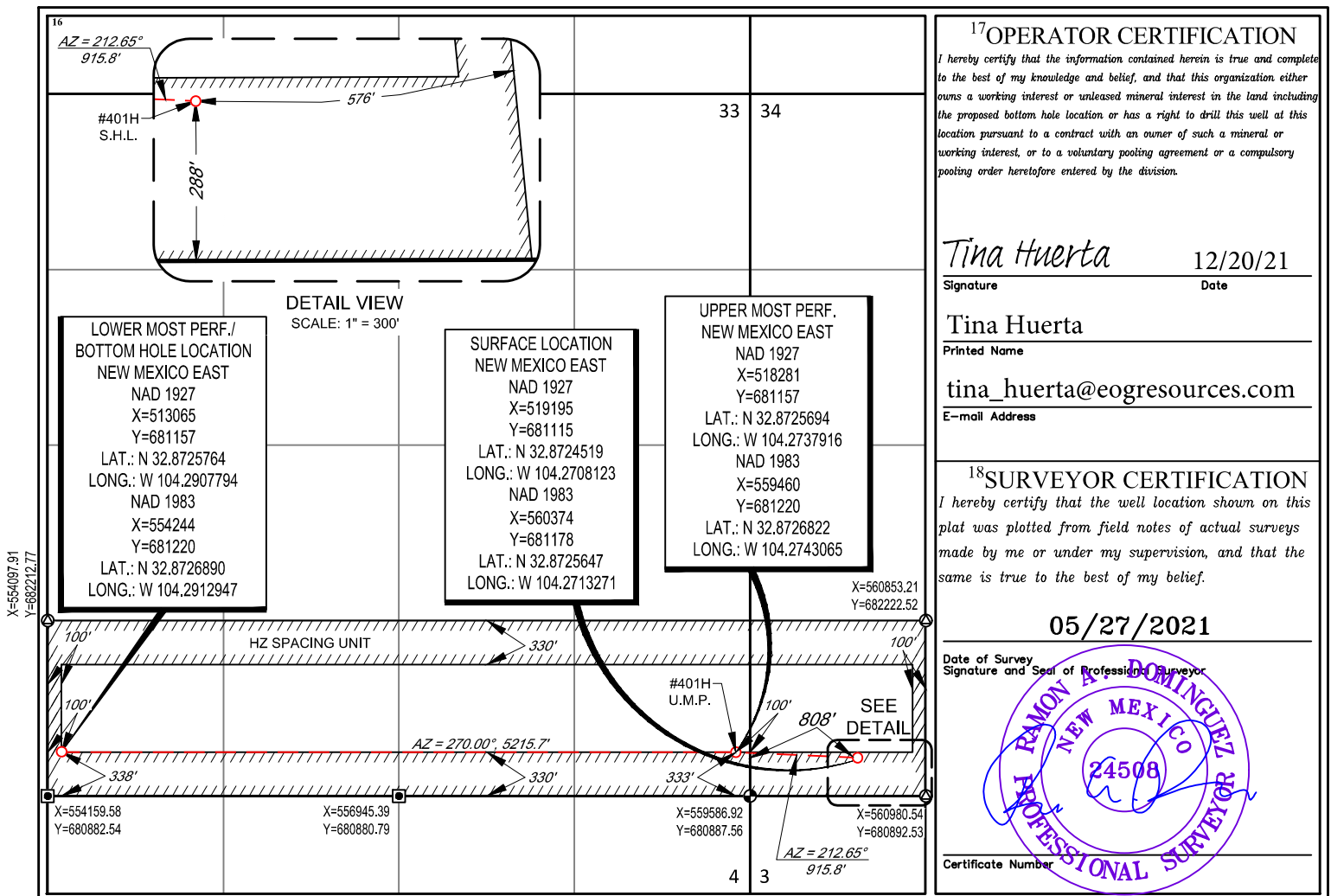
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>M</b>	<b>34</b>	<b>16-S</b>	<b>27-E</b>	<b>-</b>	<b>288'</b>	<b>SOUTH</b>	<b>808'</b>	<b>WEST</b>	<b>EDDY</b>

<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>M</b>	<b>33</b>	<b>16-S</b>	<b>27-E</b>	<b>-</b>	<b>338'</b>	<b>SOUTH</b>	<b>100'</b>	<b>WEST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres <b>200.00</b>	<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.



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**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

Form APD Conditions

Permit 305388

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: EOG RESOURCES INC [7377] P.O. Box 2267 Midland, TX 79702	API Number: 30-015-49177
	Well: War Horse 3433 State Com #401H

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
kpickford	Cement is required to circulate on both surface and production strings of casing

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Well: War Horse 3433 State Com 401H  
Site: Section 33 & 34-T16S-R27E  
Project: Eddy County, New Mexico  
Design: rev1  
Rig:

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level  
Depth Reference: GL @ 3422.00ft

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	KOP Begin 2"/100' build
3	1197.56	1.95	284.80	1197.54	0.42	-1.61	2.00	1.61	Begin 1.95° tangent
4	5448.41	1.95	284.80	5445.92	37.40	-141.53	0.00	141.79	Begin 10"/100' build/turn
5	6329.54	90.00	270.00	6000.00	42.22	-714.18	10.00	714.45	Begin 90.00° lateral
6	6529.54	90.00	270.00	6000.00	42.22	-914.18	0.00	914.45	FTP 6529.54 MD 6000.00 TVD
7	11745.78	90.00	270.00	6000.00	42.20	-6130.41	0.00	6130.56	PBHL/TD 11745.78 MD 6000.00 TVD

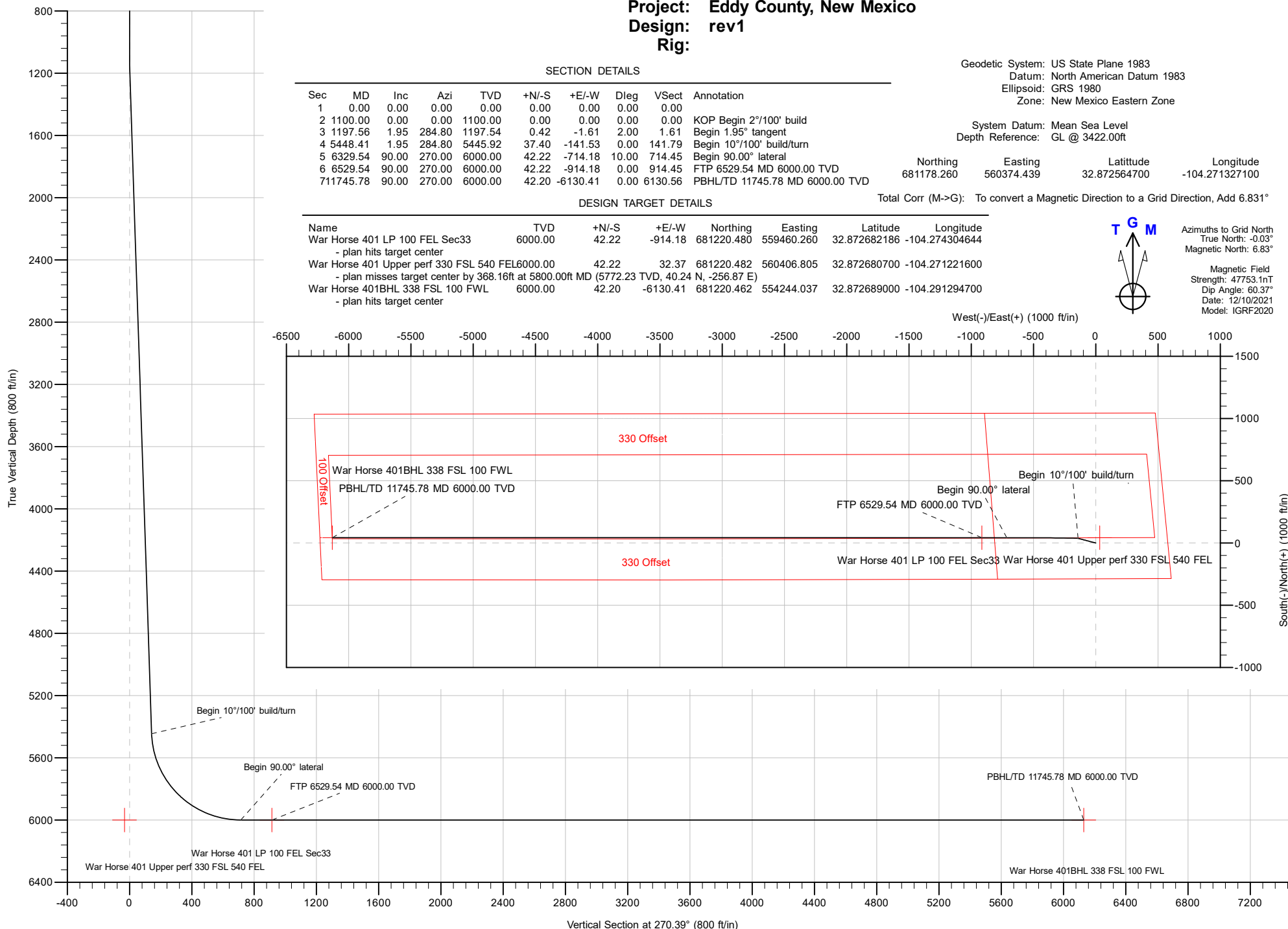
Northing 681178.260 Easting 560374.439 Latitude 32.872564700 Longitude -104.271327100

Total Corr (M->G): To convert a Magnetic Direction to a Grid Direction, Add 6.831°

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
War Horse 401 LP 100 FEL Sec33	6000.00	42.22	-914.18	681220.480	559460.260	32.872682186	-104.274304644
- plan hits target center							
War Horse 401 Upper perf 330 FSL 540 FEL6000.00		42.22	32.37	681220.482	560406.805	32.872680700	-104.271221600
- plan misses target center by 368.16ft at 5800.00ft MD (5772.23 TVD, 40.24 N, -256.87 E)							
War Horse 401BHL 338 FSL 100 FWL	6000.00	42.20	-6130.41	681220.462	554244.037	32.872689000	-104.291294700
- plan hits target center							



Azimuths to Grid North  
True North: -0.03°  
Magnetic North: 6.83°  
  
Magnetic Field  
Strength: 47753.1nT  
Dip Angle: 60.37°  
Date: 12/10/2021  
Model: IGRF2020



## Planning Report

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

<b>Project</b>	Eddy County, New Mexico		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

Site		Section 33 & 34-T16S-R27E			
Site Position:		Northing:	681,178.260 usft	Latitude:	32.872564700
From:	Lat/Long	Easting:	560,374.440 usft	Longitude:	-104.271327100
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well	War Horse 3433 State Com 401H, Surf loc: 288 FSL 808 FWL Section 34-T16S-R27E					
Well Position	+N/-S	0.00 ft	Northing:	681,178.260 usft	Latitude:	32.872564700
	+E/-W	0.00 ft	Easting:	560,374.440 usft	Longitude:	-104.271327100
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,422.00 ft
Grid Convergence:		0.034 °				

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	12/10/2021	6.865	60.368	47,753.12201077

Design	rev1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	270.39

<b>Plan Survey Tool Program</b>	<b>Date</b>	12/15/2021			
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	11,745.78	rev1 (Original Hole)		

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,197.56	1.95	284.80	1,197.54	0.42	-1.61	2.00	2.00	0.00	284.802	
5,448.41	1.95	284.80	5,445.92	37.40	-141.53	0.00	0.00	0.00	0.000	
6,329.54	90.00	270.00	6,000.00	42.22	-714.18	10.00	9.99	-1.68	-14.810	
6,529.54	90.00	270.00	6,000.00	42.22	-914.18	0.00	0.00	0.00	0.000	War Horse 401 LP 10
11,745.78	90.00	270.00	6,000.00	42.20	-6,130.41	0.00	0.00	0.00	0.000	War Horse 401BHL 3'

## Planning Report

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 2°/100' build									
1,197.56	1.95	284.80	1,197.54	0.42	-1.61	1.61	2.00	2.00	0.00
Begin 1.95° tangent									
1,200.00	1.95	284.80	1,199.98	0.45	-1.69	1.69	0.00	0.00	0.00
1,300.00	1.95	284.80	1,299.92	1.32	-4.98	4.99	0.00	0.00	0.00
1,400.00	1.95	284.80	1,399.86	2.19	-8.27	8.28	0.00	0.00	0.00
1,500.00	1.95	284.80	1,499.81	3.06	-11.56	11.58	0.00	0.00	0.00
1,600.00	1.95	284.80	1,599.75	3.92	-14.85	14.88	0.00	0.00	0.00
1,700.00	1.95	284.80	1,699.69	4.79	-18.15	18.18	0.00	0.00	0.00
1,800.00	1.95	284.80	1,799.63	5.66	-21.44	21.48	0.00	0.00	0.00
1,900.00	1.95	284.80	1,899.57	6.53	-24.73	24.77	0.00	0.00	0.00
2,000.00	1.95	284.80	1,999.52	7.40	-28.02	28.07	0.00	0.00	0.00
2,100.00	1.95	284.80	2,099.46	8.27	-31.31	31.37	0.00	0.00	0.00
2,200.00	1.95	284.80	2,199.40	9.14	-34.60	34.67	0.00	0.00	0.00
2,300.00	1.95	284.80	2,299.34	10.01	-37.90	37.96	0.00	0.00	0.00
2,400.00	1.95	284.80	2,399.28	10.88	-41.19	41.26	0.00	0.00	0.00
2,500.00	1.95	284.80	2,499.23	11.75	-44.48	44.56	0.00	0.00	0.00
2,600.00	1.95	284.80	2,599.17	12.62	-47.77	47.86	0.00	0.00	0.00
2,700.00	1.95	284.80	2,699.11	13.49	-51.06	51.15	0.00	0.00	0.00
2,800.00	1.95	284.80	2,799.05	14.36	-54.35	54.45	0.00	0.00	0.00
2,900.00	1.95	284.80	2,898.99	15.23	-57.65	57.75	0.00	0.00	0.00
3,000.00	1.95	284.80	2,998.94	16.10	-60.94	61.05	0.00	0.00	0.00
3,100.00	1.95	284.80	3,098.88	16.97	-64.23	64.35	0.00	0.00	0.00
3,200.00	1.95	284.80	3,198.82	17.84	-67.52	67.64	0.00	0.00	0.00
3,300.00	1.95	284.80	3,298.76	18.71	-70.81	70.94	0.00	0.00	0.00
3,400.00	1.95	284.80	3,398.70	19.58	-74.11	74.24	0.00	0.00	0.00
3,500.00	1.95	284.80	3,498.65	20.45	-77.40	77.54	0.00	0.00	0.00
3,600.00	1.95	284.80	3,598.59	21.32	-80.69	80.83	0.00	0.00	0.00
3,700.00	1.95	284.80	3,698.53	22.19	-83.98	84.13	0.00	0.00	0.00
3,800.00	1.95	284.80	3,798.47	23.06	-87.27	87.43	0.00	0.00	0.00
3,900.00	1.95	284.80	3,898.41	23.93	-90.56	90.73	0.00	0.00	0.00
4,000.00	1.95	284.80	3,998.36	24.80	-93.86	94.02	0.00	0.00	0.00
4,100.00	1.95	284.80	4,098.30	25.67	-97.15	97.32	0.00	0.00	0.00
4,200.00	1.95	284.80	4,198.24	26.54	-100.44	100.62	0.00	0.00	0.00
4,300.00	1.95	284.80	4,298.18	27.41	-103.73	103.92	0.00	0.00	0.00
4,400.00	1.95	284.80	4,398.12	28.28	-107.02	107.21	0.00	0.00	0.00
4,500.00	1.95	284.80	4,498.07	29.15	-110.31	110.51	0.00	0.00	0.00
4,600.00	1.95	284.80	4,598.01	30.02	-113.61	113.81	0.00	0.00	0.00
4,700.00	1.95	284.80	4,697.95	30.89	-116.90	117.11	0.00	0.00	0.00
4,800.00	1.95	284.80	4,797.89	31.76	-120.19	120.41	0.00	0.00	0.00
4,900.00	1.95	284.80	4,897.83	32.63	-123.48	123.70	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,000.00	1.95	284.80	4,997.78	33.50	-126.77	127.00	0.00	0.00	0.00
5,100.00	1.95	284.80	5,097.72	34.37	-130.07	130.30	0.00	0.00	0.00
5,200.00	1.95	284.80	5,197.66	35.24	-133.36	133.60	0.00	0.00	0.00
5,300.00	1.95	284.80	5,297.60	36.11	-136.65	136.89	0.00	0.00	0.00
5,400.00	1.95	284.80	5,397.54	36.98	-139.94	140.19	0.00	0.00	0.00
5,448.41	1.95	284.80	5,445.92	37.40	-141.53	141.79	0.00	0.00	0.00
Begin 10°/100' build/turn									
5,450.00	2.11	283.69	5,447.52	37.41	-141.59	141.84	10.00	9.69	-69.58
5,500.00	7.06	274.03	5,497.34	37.85	-145.55	145.81	10.00	9.92	-19.33
5,550.00	12.06	272.34	5,546.63	38.28	-153.84	154.10	10.00	9.99	-3.38
5,600.00	17.05	271.63	5,595.01	38.70	-166.39	166.66	10.00	9.99	-1.42
5,650.00	22.05	271.23	5,642.11	39.11	-183.12	183.38	10.00	10.00	-0.79
5,700.00	27.05	270.98	5,687.58	39.50	-203.88	204.15	10.00	10.00	-0.51
5,750.00	32.05	270.80	5,731.06	39.88	-228.53	228.80	10.00	10.00	-0.36
5,800.00	37.05	270.66	5,772.23	40.24	-256.87	257.14	10.00	10.00	-0.27
5,850.00	42.05	270.55	5,810.77	40.57	-288.70	288.97	10.00	10.00	-0.22
5,900.00	47.05	270.46	5,846.39	40.88	-323.76	324.03	10.00	10.00	-0.18
5,950.00	52.05	270.39	5,878.82	41.17	-361.79	362.07	10.00	10.00	-0.15
6,000.00	57.05	270.32	5,907.82	41.42	-402.51	402.78	10.00	10.00	-0.13
6,050.00	62.05	270.26	5,933.15	41.64	-445.60	445.87	10.00	10.00	-0.12
6,100.00	67.05	270.21	5,954.63	41.83	-490.73	491.01	10.00	10.00	-0.11
6,150.00	72.05	270.16	5,972.10	41.98	-537.56	537.84	10.00	10.00	-0.10
6,200.00	77.05	270.11	5,985.42	42.09	-585.74	586.01	10.00	10.00	-0.09
6,250.00	82.05	270.07	5,994.49	42.17	-634.89	635.17	10.00	10.00	-0.09
6,300.00	87.05	270.03	5,999.24	42.21	-684.65	684.93	10.00	10.00	-0.09
6,329.54	90.00	270.00	6,000.00	42.22	-714.18	714.45	10.00	10.00	-0.09
Begin 90.00° lateral									
6,400.00	90.00	270.00	6,000.00	42.22	-784.64	784.91	0.00	0.00	0.00
6,500.00	90.00	270.00	6,000.00	42.22	-884.64	884.91	0.00	0.00	0.00
6,529.54	90.00	270.00	6,000.00	42.22	-914.18	914.45	0.00	0.00	0.00
FTP 6529.54 MD 6000.00 TVD									
6,600.00	90.00	270.00	6,000.00	42.22	-984.64	984.91	0.00	0.00	0.00
6,700.00	90.00	270.00	6,000.00	42.22	-1,084.64	1,084.90	0.00	0.00	0.00
6,800.00	90.00	270.00	6,000.00	42.22	-1,184.64	1,184.90	0.00	0.00	0.00
6,900.00	90.00	270.00	6,000.00	42.22	-1,284.64	1,284.90	0.00	0.00	0.00
7,000.00	90.00	270.00	6,000.00	42.22	-1,384.64	1,384.90	0.00	0.00	0.00
7,100.00	90.00	270.00	6,000.00	42.22	-1,484.64	1,484.89	0.00	0.00	0.00
7,200.00	90.00	270.00	6,000.00	42.22	-1,584.64	1,584.89	0.00	0.00	0.00
7,300.00	90.00	270.00	6,000.00	42.22	-1,684.64	1,684.89	0.00	0.00	0.00
7,400.00	90.00	270.00	6,000.00	42.22	-1,784.64	1,784.89	0.00	0.00	0.00
7,500.00	90.00	270.00	6,000.00	42.22	-1,884.64	1,884.88	0.00	0.00	0.00
7,600.00	90.00	270.00	6,000.00	42.22	-1,984.64	1,984.88	0.00	0.00	0.00
7,700.00	90.00	270.00	6,000.00	42.22	-2,084.64	2,084.88	0.00	0.00	0.00
7,800.00	90.00	270.00	6,000.00	42.22	-2,184.64	2,184.88	0.00	0.00	0.00
7,900.00	90.00	270.00	6,000.00	42.21	-2,284.64	2,284.87	0.00	0.00	0.00
8,000.00	90.00	270.00	6,000.00	42.21	-2,384.64	2,384.87	0.00	0.00	0.00
8,100.00	90.00	270.00	6,000.00	42.21	-2,484.64	2,484.87	0.00	0.00	0.00
8,200.00	90.00	270.00	6,000.00	42.21	-2,584.64	2,584.87	0.00	0.00	0.00
8,300.00	90.00	270.00	6,000.00	42.21	-2,684.64	2,684.86	0.00	0.00	0.00
8,400.00	90.00	270.00	6,000.00	42.21	-2,784.64	2,784.86	0.00	0.00	0.00
8,500.00	90.00	270.00	6,000.00	42.21	-2,884.64	2,884.86	0.00	0.00	0.00
8,600.00	90.00	270.00	6,000.00	42.21	-2,984.64	2,984.86	0.00	0.00	0.00
8,700.00	90.00	270.00	6,000.00	42.21	-3,084.64	3,084.86	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,800.00	90.00	270.00	6,000.00	42.21	-3,184.64	3,184.85	0.00	0.00	0.00	
8,900.00	90.00	270.00	6,000.00	42.21	-3,284.64	3,284.85	0.00	0.00	0.00	
9,000.00	90.00	270.00	6,000.00	42.21	-3,384.64	3,384.85	0.00	0.00	0.00	
9,100.00	90.00	270.00	6,000.00	42.21	-3,484.64	3,484.85	0.00	0.00	0.00	
9,200.00	90.00	270.00	6,000.00	42.21	-3,584.64	3,584.84	0.00	0.00	0.00	
9,300.00	90.00	270.00	6,000.00	42.21	-3,684.64	3,684.84	0.00	0.00	0.00	
9,400.00	90.00	270.00	6,000.00	42.21	-3,784.64	3,784.84	0.00	0.00	0.00	
9,500.00	90.00	270.00	6,000.00	42.21	-3,884.64	3,884.84	0.00	0.00	0.00	
9,600.00	90.00	270.00	6,000.00	42.21	-3,984.64	3,984.83	0.00	0.00	0.00	
9,700.00	90.00	270.00	6,000.00	42.21	-4,084.64	4,084.83	0.00	0.00	0.00	
9,800.00	90.00	270.00	6,000.00	42.21	-4,184.64	4,184.83	0.00	0.00	0.00	
9,900.00	90.00	270.00	6,000.00	42.21	-4,284.64	4,284.83	0.00	0.00	0.00	
10,000.00	90.00	270.00	6,000.00	42.21	-4,384.64	4,384.82	0.00	0.00	0.00	
10,100.00	90.00	270.00	6,000.00	42.21	-4,484.64	4,484.82	0.00	0.00	0.00	
10,200.00	90.00	270.00	6,000.00	42.21	-4,584.64	4,584.82	0.00	0.00	0.00	
10,300.00	90.00	270.00	6,000.00	42.21	-4,684.64	4,684.82	0.00	0.00	0.00	
10,400.00	90.00	270.00	6,000.00	42.21	-4,784.64	4,784.82	0.00	0.00	0.00	
10,500.00	90.00	270.00	6,000.00	42.21	-4,884.64	4,884.81	0.00	0.00	0.00	
10,600.00	90.00	270.00	6,000.00	42.21	-4,984.64	4,984.81	0.00	0.00	0.00	
10,700.00	90.00	270.00	6,000.00	42.21	-5,084.64	5,084.81	0.00	0.00	0.00	
10,800.00	90.00	270.00	6,000.00	42.20	-5,184.64	5,184.81	0.00	0.00	0.00	
10,900.00	90.00	270.00	6,000.00	42.20	-5,284.64	5,284.80	0.00	0.00	0.00	
11,000.00	90.00	270.00	6,000.00	42.20	-5,384.64	5,384.80	0.00	0.00	0.00	
11,100.00	90.00	270.00	6,000.00	42.20	-5,484.64	5,484.80	0.00	0.00	0.00	
11,200.00	90.00	270.00	6,000.00	42.20	-5,584.64	5,584.80	0.00	0.00	0.00	
11,300.00	90.00	270.00	6,000.00	42.20	-5,684.64	5,684.79	0.00	0.00	0.00	
11,400.00	90.00	270.00	6,000.00	42.20	-5,784.64	5,784.79	0.00	0.00	0.00	
11,500.00	90.00	270.00	6,000.00	42.20	-5,884.64	5,884.79	0.00	0.00	0.00	
11,600.00	90.00	270.00	6,000.00	42.20	-5,984.64	5,984.79	0.00	0.00	0.00	
11,700.00	90.00	270.00	6,000.00	42.20	-6,084.64	6,084.78	0.00	0.00	0.00	
11,745.78	90.00	270.00	6,000.00	42.20	-6,130.41	6,130.56	0.00	0.00	0.00	
PBHL/TD 11745.78 MD 6000.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
War Horse 401 Upper p - hit/miss target - Shape	0.00	0.00	6,000.00	42.22	32.37	681,220.482	560,406.805	32.872680700	-104.271221600	
- plan misses target center by 368.16ft at 5800.00ft MD (5772.23 TVD, 40.24 N, -256.87 E)										
- Point										
War Horse 401 LP 100 F - plan hits target center - Point	0.00	0.00	6,000.00	42.22	-914.18	681,220.480	559,460.260	32.872682186	-104.274304644	
War Horse 401BHL 338 - plan hits target center - Point	0.00	0.00	6,000.00	42.20	-6,130.41	681,220.462	554,244.037	32.872689000	-104.291294700	

## Planning Report

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,100.00	1,100.00	0.00	0.00	KOP Begin 2°/100' build	
1,197.56	1,197.54	0.42	-1.61	Begin 1.95° tangent	
5,448.41	5,445.92	37.40	-141.53	Begin 10°/100' build/turn	
6,329.54	6,000.00	42.22	-714.18	Begin 90.00° lateral	
6,529.54	6,000.00	42.22	-914.18	FTP 6529.54 MD 6000.00 TVD	
11,745.78	6,000.00	42.20	-6,130.41	PBHL/TD 11745.78 MD 6000.00 TVD	

## Planning Report - Geographic

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

<b>Project</b>	Eddy County, New Mexico		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

Site		Section 33 & 34-T16S-R27E			
Site Position:		Northing:	681,178.260 usft	Latitude:	32.872564700
From:	Lat/Long	Easting:	560,374.440 usft	Longitude:	-104.271327100
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "		

Well		War Horse 3433 State Com 401H, Surf loc: 288 FSL 808 FWL Section 34-T16S-R27E				
Well Position	+N/-S	0.00 ft	Northing:	681,178.260 usft	Latitude:	32.872564700
	+E/-W	0.00 ft	Easting:	560,374.440 usft	Longitude:	-104.271327100
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,422.00 ft
Grid Convergence:						

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	12/10/2021	6.865	60.368	47,753.12201077

<b>Design</b>	rev1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	270.39

<b>Plan Survey Tool Program</b>	<b>Date</b>			
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	11,745.78 rev1 (Original Hole)		

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,197.56	1.95	284.80	1,197.54	0.42	-1.61	2.00	2.00	0.00	284.802	
5,448.41	1.95	284.80	5,445.92	37.40	-141.53	0.00	0.00	0.00	0.000	
6,329.54	90.00	270.00	6,000.00	42.22	-714.18	10.00	9.99	-1.68	-14.810	
6,529.54	90.00	270.00	6,000.00	42.22	-914.18	0.00	0.00	0.00	0.000	War Horse 401 LP 10
11,745.78	90.00	270.00	6,000.00	42.20	-6,130.41	0.00	0.00	0.00	0.000	War Horse 401BHL 3'

## Planning Report - Geographic

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
100.00	0.00	0.00	100.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
200.00	0.00	0.00	200.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
300.00	0.00	0.00	300.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
400.00	0.00	0.00	400.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
500.00	0.00	0.00	500.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
600.00	0.00	0.00	600.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
700.00	0.00	0.00	700.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
800.00	0.00	0.00	800.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
900.00	0.00	0.00	900.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
1,000.00	0.00	0.00	1,000.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
1,100.00	0.00	0.00	1,100.00	0.00	0.00	681,178.260	560,374.440	32.872564700	-104.271327100
<b>KOP Begin 2°/100' build</b>									
1,197.56	1.95	284.80	1,197.54	0.42	-1.61	681,178.684	560,372.834	32.872565869	-104.271332330
<b>Begin 1.95° tangent</b>									
1,200.00	1.95	284.80	1,199.98	0.45	-1.69	681,178.706	560,372.753	32.872565927	-104.271332591
1,300.00	1.95	284.80	1,299.92	1.32	-4.98	681,179.575	560,369.462	32.872568323	-104.271343312
1,400.00	1.95	284.80	1,399.86	2.19	-8.27	681,180.445	560,366.170	32.872570719	-104.271354032
1,500.00	1.95	284.80	1,499.81	3.06	-11.56	681,181.315	560,362.878	32.872573116	-104.271364752
1,600.00	1.95	284.80	1,599.75	3.92	-14.85	681,182.185	560,359.586	32.872575512	-104.271375472
1,700.00	1.95	284.80	1,699.69	4.79	-18.15	681,183.055	560,356.295	32.872577908	-104.271386192
1,800.00	1.95	284.80	1,799.63	5.66	-21.44	681,183.925	560,353.003	32.872580304	-104.271396912
1,900.00	1.95	284.80	1,899.57	6.53	-24.73	681,184.794	560,349.711	32.872582700	-104.271407632
2,000.00	1.95	284.80	1,999.52	7.40	-28.02	681,185.664	560,346.419	32.872585096	-104.271418352
2,100.00	1.95	284.80	2,099.46	8.27	-31.31	681,186.534	560,343.128	32.872587493	-104.271429072
2,200.00	1.95	284.80	2,199.40	9.14	-34.60	681,187.404	560,339.836	32.872589889	-104.271439792
2,300.00	1.95	284.80	2,299.34	10.01	-37.90	681,188.274	560,336.544	32.872592285	-104.271450512
2,400.00	1.95	284.80	2,399.28	10.88	-41.19	681,189.144	560,333.252	32.872594681	-104.271461233
2,500.00	1.95	284.80	2,499.23	11.75	-44.48	681,190.014	560,329.961	32.872597077	-104.271471953
2,600.00	1.95	284.80	2,599.17	12.62	-47.77	681,190.883	560,326.669	32.872599473	-104.271482673
2,700.00	1.95	284.80	2,699.11	13.49	-51.06	681,191.753	560,323.377	32.872601870	-104.271493393
2,800.00	1.95	284.80	2,799.05	14.36	-54.35	681,192.623	560,320.085	32.872604266	-104.271504113
2,900.00	1.95	284.80	2,898.99	15.23	-57.65	681,193.493	560,316.794	32.872606662	-104.271514833
3,000.00	1.95	284.80	2,998.94	16.10	-60.94	681,194.363	560,313.502	32.872609058	-104.271525553
3,100.00	1.95	284.80	3,098.88	16.97	-64.23	681,195.233	560,310.210	32.872611454	-104.271536273
3,200.00	1.95	284.80	3,198.82	17.84	-67.52	681,196.102	560,306.918	32.872613850	-104.271546993
3,300.00	1.95	284.80	3,298.76	18.71	-70.81	681,196.972	560,303.627	32.872616247	-104.271557714
3,400.00	1.95	284.80	3,398.70	19.58	-74.11	681,197.842	560,300.335	32.872618643	-104.271568434
3,500.00	1.95	284.80	3,498.65	20.45	-77.40	681,198.712	560,297.043	32.872621039	-104.271579154
3,600.00	1.95	284.80	3,598.59	21.32	-80.69	681,199.582	560,293.751	32.872623435	-104.271589874
3,700.00	1.95	284.80	3,698.53	22.19	-83.98	681,200.452	560,290.459	32.872625831	-104.271600594
3,800.00	1.95	284.80	3,798.47	23.06	-87.27	681,201.321	560,287.168	32.872628227	-104.271611314
3,900.00	1.95	284.80	3,898.41	23.93	-90.56	681,202.191	560,283.876	32.872630623	-104.271622034
4,000.00	1.95	284.80	3,998.36	24.80	-93.86	681,203.061	560,280.584	32.872633020	-104.271632754
4,100.00	1.95	284.80	4,098.30	25.67	-97.15	681,203.931	560,277.292	32.872635416	-104.271643474
4,200.00	1.95	284.80	4,198.24	26.54	-100.44	681,204.801	560,274.001	32.872637812	-104.271654194
4,300.00	1.95	284.80	4,298.18	27.41	-103.73	681,205.671	560,270.709	32.872640208	-104.271664915
4,400.00	1.95	284.80	4,398.12	28.28	-107.02	681,206.540	560,267.417	32.872642604	-104.271675635
4,500.00	1.95	284.80	4,498.07	29.15	-110.31	681,207.410	560,264.125	32.872645000	-104.271686355
4,600.00	1.95	284.80	4,598.01	30.02	-113.61	681,208.280	560,260.834	32.872647396	-104.271697075
4,700.00	1.95	284.80	4,697.95	30.89	-116.90	681,209.150	560,257.542	32.872649793	-104.271707795
4,800.00	1.95	284.80	4,797.89	31.76	-120.19	681,210.020	560,254.250	32.872652189	-104.271718515
4,900.00	1.95	284.80	4,897.83	32.63	-123.48	681,210.890	560,250.958	32.872654585	-104.271729235
5,000.00	1.95	284.80	4,997.78	33.50	-126.77	681,211.759	560,247.667	32.872656981	-104.271739955

## Planning Report - Geographic

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,100.00	1.95	284.80	5,097.72	34.37	-130.07	681,212.629	560,244.375	32.872659377	-104.271750675
5,200.00	1.95	284.80	5,197.66	35.24	-133.36	681,213.499	560,241.083	32.872661773	-104.271761396
5,300.00	1.95	284.80	5,297.60	36.11	-136.65	681,214.369	560,237.791	32.872664169	-104.271772116
5,400.00	1.95	284.80	5,397.54	36.98	-139.94	681,215.239	560,234.500	32.872666565	-104.271782836
5,448.41	1.95	284.80	5,445.92	37.40	-141.53	681,215.660	560,232.906	32.872667725	-104.271788025
Begin 10°/100' build/turn									
5,450.00	2.11	283.69	5,447.52	37.41	-141.59	681,215.674	560,232.851	32.872667764	-104.271788203
5,500.00	7.06	274.03	5,497.34	37.85	-145.55	681,216.107	560,228.890	32.872668962	-104.271801105
5,550.00	12.06	272.34	5,546.63	38.28	-153.84	681,216.536	560,220.601	32.872670154	-104.271828103
5,600.00	17.05	271.63	5,595.01	38.70	-166.39	681,216.957	560,208.047	32.872671332	-104.271868991
5,650.00	22.05	271.23	5,642.11	39.11	-183.12	681,217.367	560,191.325	32.872672485	-104.271923459
5,700.00	27.05	270.98	5,687.58	39.50	-203.88	681,217.763	560,170.561	32.872673606	-104.271991090
5,750.00	32.05	270.80	5,731.06	39.88	-228.53	681,218.141	560,145.913	32.872674685	-104.272071372
5,800.00	37.05	270.66	5,772.23	40.24	-256.87	681,218.500	560,117.568	32.872675715	-104.272163693
5,850.00	42.05	270.55	5,810.77	40.57	-288.70	681,218.835	560,085.744	32.872676687	-104.272267349
5,900.00	47.05	270.46	5,846.39	40.88	-323.76	681,219.145	560,050.681	32.872677595	-104.272381553
5,950.00	52.05	270.39	5,878.82	41.17	-361.79	681,219.427	560,012.647	32.872678430	-104.272505436
6,000.00	57.05	270.32	5,907.82	41.42	-402.51	681,219.679	559,971.931	32.872679188	-104.272638053
6,050.00	62.05	270.26	5,933.15	41.64	-445.60	681,219.899	559,928.843	32.872679862	-104.272778397
6,100.00	67.05	270.21	5,954.63	41.83	-490.73	681,220.086	559,883.711	32.872680446	-104.272925399
6,150.00	72.05	270.16	5,972.10	41.98	-537.56	681,220.238	559,836.879	32.872680937	-104.273077939
6,200.00	77.05	270.11	5,985.42	42.09	-585.74	681,220.354	559,788.702	32.872681331	-104.273234858
6,250.00	82.05	270.07	5,994.49	42.17	-634.89	681,220.433	559,739.548	32.872681624	-104.273394962
6,300.00	87.05	270.03	5,999.24	42.21	-684.65	681,220.474	559,689.790	32.872681815	-104.273557030
6,329.54	90.00	270.00	6,000.00	42.22	-714.18	681,220.480	559,660.260	32.872681879	-104.273653214
Begin 90.00° lateral									
6,400.00	90.00	270.00	6,000.00	42.22	-784.64	681,220.480	559,589.803	32.872681987	-104.273882703
6,500.00	90.00	270.00	6,000.00	42.22	-884.64	681,220.480	559,489.804	32.872682141	-104.274208417
6,529.54	90.00	270.00	6,000.00	42.22	-914.18	681,220.480	559,460.260	32.872682186	-104.274304644
FTP 6529.54 MD 6000.00 TVD									
6,600.00	90.00	270.00	6,000.00	42.22	-984.64	681,220.479	559,389.804	32.872682293	-104.274534132
6,700.00	90.00	270.00	6,000.00	42.22	-1,084.64	681,220.479	559,289.804	32.872682445	-104.274859847
6,800.00	90.00	270.00	6,000.00	42.22	-1,184.64	681,220.479	559,189.804	32.872682596	-104.275185562
6,900.00	90.00	270.00	6,000.00	42.22	-1,284.64	681,220.478	559,089.804	32.872682746	-104.275511277
7,000.00	90.00	270.00	6,000.00	42.22	-1,384.64	681,220.478	558,989.805	32.872682895	-104.275836992
7,100.00	90.00	270.00	6,000.00	42.22	-1,484.64	681,220.478	558,889.805	32.872683043	-104.276162707
7,200.00	90.00	270.00	6,000.00	42.22	-1,584.64	681,220.477	558,789.805	32.872683191	-104.276488422
7,300.00	90.00	270.00	6,000.00	42.22	-1,684.64	681,220.477	558,689.805	32.872683338	-104.276814137
7,400.00	90.00	270.00	6,000.00	42.22	-1,784.64	681,220.477	558,589.805	32.872683483	-104.277139853
7,500.00	90.00	270.00	6,000.00	42.22	-1,884.64	681,220.476	558,489.806	32.872683628	-104.277465568
7,600.00	90.00	270.00	6,000.00	42.22	-1,984.64	681,220.476	558,389.806	32.872683772	-104.277791283
7,700.00	90.00	270.00	6,000.00	42.22	-2,084.64	681,220.476	558,289.806	32.872683916	-104.278116998
7,800.00	90.00	270.00	6,000.00	42.22	-2,184.64	681,220.475	558,189.806	32.872684058	-104.278442713
7,900.00	90.00	270.00	6,000.00	42.21	-2,284.64	681,220.475	558,089.806	32.872684200	-104.278768428
8,000.00	90.00	270.00	6,000.00	42.21	-2,384.64	681,220.475	557,989.807	32.872684340	-104.279094143
8,100.00	90.00	270.00	6,000.00	42.21	-2,484.64	681,220.474	557,889.806	32.872684480	-104.279419858
8,200.00	90.00	270.00	6,000.00	42.21	-2,584.64	681,220.474	557,789.806	32.872684619	-104.279745573
8,300.00	90.00	270.00	6,000.00	42.21	-2,684.64	681,220.473	557,689.806	32.872684757	-104.280071288
8,400.00	90.00	270.00	6,000.00	42.21	-2,784.64	681,220.473	557,589.806	32.872684895	-104.280397003
8,500.00	90.00	270.00	6,000.00	42.21	-2,884.64	681,220.473	557,489.807	32.872685031	-104.280722718
8,600.00	90.00	270.00	6,000.00	42.21	-2,984.64	681,220.472	557,389.807	32.872685167	-104.281048433
8,700.00	90.00	270.00	6,000.00	42.21	-3,084.64	681,220.472	557,289.807	32.872685301	-104.281374148
8,800.00	90.00	270.00	6,000.00	42.21	-3,184.64	681,220.472	557,189.807	32.872685435	-104.281699863
8,900.00	90.00	270.00	6,000.00	42.21	-3,284.64	681,220.471	557,089.807	32.872685568	-104.282025578

## Planning Report - Geographic

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,000.00	90.00	270.00	6,000.00	42.21	-3,384.64	681,220.471	556,989.808	32.872685701	-104.282351293
9,100.00	90.00	270.00	6,000.00	42.21	-3,484.64	681,220.471	556,889.808	32.872685832	-104.282677008
9,200.00	90.00	270.00	6,000.00	42.21	-3,584.64	681,220.470	556,789.808	32.872685963	-104.283002723
9,300.00	90.00	270.00	6,000.00	42.21	-3,684.64	681,220.470	556,689.808	32.872686092	-104.283328438
9,400.00	90.00	270.00	6,000.00	42.21	-3,784.64	681,220.470	556,589.808	32.872686221	-104.283654153
9,500.00	90.00	270.00	6,000.00	42.21	-3,884.64	681,220.469	556,489.809	32.872686349	-104.283979868
9,600.00	90.00	270.00	6,000.00	42.21	-3,984.64	681,220.469	556,389.809	32.872686476	-104.284305583
9,700.00	90.00	270.00	6,000.00	42.21	-4,084.64	681,220.469	556,289.809	32.872686602	-104.284631298
9,800.00	90.00	270.00	6,000.00	42.21	-4,184.64	681,220.468	556,189.809	32.872686728	-104.284957013
9,900.00	90.00	270.00	6,000.00	42.21	-4,284.64	681,220.468	556,089.809	32.872686852	-104.285282728
10,000.00	90.00	270.00	6,000.00	42.21	-4,384.64	681,220.468	555,989.810	32.872686976	-104.285608444
10,100.00	90.00	270.00	6,000.00	42.21	-4,484.64	681,220.467	555,889.810	32.872687099	-104.285934159
10,200.00	90.00	270.00	6,000.00	42.21	-4,584.64	681,220.467	555,789.810	32.872687221	-104.286259874
10,300.00	90.00	270.00	6,000.00	42.21	-4,684.64	681,220.467	555,689.810	32.872687342	-104.286585589
10,400.00	90.00	270.00	6,000.00	42.21	-4,784.64	681,220.466	555,589.811	32.872687463	-104.286911304
10,500.00	90.00	270.00	6,000.00	42.21	-4,884.64	681,220.466	555,489.811	32.872687582	-104.287237019
10,600.00	90.00	270.00	6,000.00	42.21	-4,984.64	681,220.466	555,389.811	32.872687701	-104.287562734
10,700.00	90.00	270.00	6,000.00	42.21	-5,084.64	681,220.465	555,289.811	32.872687819	-104.287888449
10,800.00	90.00	270.00	6,000.00	42.20	-5,184.64	681,220.465	555,189.811	32.872687936	-104.288214164
10,900.00	90.00	270.00	6,000.00	42.20	-5,284.64	681,220.464	555,089.812	32.872688052	-104.288539879
11,000.00	90.00	270.00	6,000.00	42.20	-5,384.64	681,220.464	554,989.812	32.872688167	-104.288865594
11,100.00	90.00	270.00	6,000.00	42.20	-5,484.64	681,220.464	554,889.812	32.872688281	-104.289191309
11,200.00	90.00	270.00	6,000.00	42.20	-5,584.64	681,220.463	554,789.812	32.872688395	-104.289517024
11,300.00	90.00	270.00	6,000.00	42.20	-5,684.64	681,220.463	554,689.812	32.872688508	-104.289842739
11,400.00	90.00	270.00	6,000.00	42.20	-5,784.64	681,220.463	554,589.813	32.872688619	-104.290168454
11,500.00	90.00	270.00	6,000.00	42.20	-5,884.64	681,220.462	554,489.813	32.872688730	-104.290494169
11,600.00	90.00	270.00	6,000.00	42.20	-5,984.64	681,220.462	554,389.813	32.872688841	-104.290819884
11,700.00	90.00	270.00	6,000.00	42.20	-6,084.64	681,220.462	554,289.813	32.872688950	-104.291145599
11,745.78	90.00	270.00	6,000.00	42.20	-6,130.41	681,220.462	554,244.037	32.872689000	-104.291294700
PBHL/TD 11745.78 MD 6000.00 TVD									

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
War Horse 401 Upper p - plan misses target center by 368.16ft at 5800.00ft MD (5772.23 TVD, 40.24 N, -256.87 E) - Point	0.00	0.00	6,000.00	42.22	32.37	681,220.482	560,406.805	32.8726880700	-104.271221600	
War Horse 401 LP 100 F - plan hits target center - Point	0.00	0.00	6,000.00	42.22	-914.18	681,220.480	559,460.260	32.872682186	-104.274304644	
War Horse 401BHL 338 - plan hits target center - Point	0.00	0.00	6,000.00	42.20	-6,130.41	681,220.462	554,244.037	32.872689000	-104.291294700	

## Planning Report - Geographic

<b>Database:</b>	DB_Dec2220_v16	<b>Local Co-ordinate Reference:</b>	Well War Horse 3433 State Com 401H
<b>Company:</b>		<b>TVD Reference:</b>	GL @ 3422.00ft
<b>Project:</b>	Eddy County, New Mexico	<b>MD Reference:</b>	GL @ 3422.00ft
<b>Site:</b>	Section 33 & 34-T16S-R27E	<b>North Reference:</b>	Grid
<b>Well:</b>	War Horse 3433 State Com 401H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	rev1		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,100.00	1,100.00	0.00	0.00	KOP Begin 2°/100' build	
1,197.56	1,197.54	0.42	-1.61	Begin 1.95° tangent	
5,448.41	5,445.92	37.40	-141.53	Begin 10°/100' build/turn	
6,329.54	6,000.00	42.22	-714.18	Begin 90.00° lateral	
6,529.54	6,000.00	42.22	-914.18	FTP 6529.54 MD 6000.00 TVD	
11,745.78	6,000.00	42.20	-6,130.41	PBHL/TD 11745.78 MD 6000.00 TVD	

**State Permit Information:****Well Name: War Horse 3433 State Com 401H****Location:**

SL: 288' FSL 808' FWL, 34-16S-27E

BHL: 338' FSL 100' FWL, 33-16S-27E

**Casing Program**

Hole Size	Interval	Csg OD	Weight	Grade	Conn	Df <sub>min</sub> Collapse	Df <sub>min</sub> Burst	Df <sub>min</sub> Tension
12.25"	0'-1,100'	9.625"	36#	J-55	STC	1.125	1.25	1.80
8.75"	11,745	5.5"	20#	L-80	BTC	1.125	1.25	1.80

**Cement Program:**

Depth	No. Sacks	Wt. lb/gal	Yld Ft <sup>3</sup> /ft	Slurry Description
1,100'	265	12.8	1.68	Lead: 35/65 Poz PM Class C + 5% BWOW Sodium Chloride + 6% Bentonite Gel + 0.4% CPT-503P (Defoamer) 100% Excess (TOC @ Surface)
	205	14.8	1.33	Tail: Class C Cement 100% Excess
11,745'	520	10.5	3.47	Lead: CPT Trident Cement Blend + 10% BWOC GEL + 0.1% BWOC GXT-C (Suspension Aid) + 1.0% BWOC CPT-20A (Cement Retarder) (TOC @ Surface) 35% Excess
	1370	13.2	1.56	Tail: 25/75 Poz-PM-Class C + 0.25 lb/sk Cellophane Flake (LCM) + 0.1% CPT-24 (Cement Retarder) 35% Excess

**Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 - 1,100'	Fresh Water	8.4-8.8	28-32	N/c
1,100' - 11,745'	Cut Brine	8.6-9.6	28-40	Less than



State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** EOG Resources, Inc.

**OGRID:** 7377

**Date:** 12-27-21

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
War Horse 3433 State Com 401H	30-15-	M-34-16S-27E	288 FSL & 808 FWL	700	1,100	1,300

**IV. Central Delivery Point Name:** Durango Midstream, LLC in M-34-16S-27E [See 19.15.27.9(D)(1) NMAC]

**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
War Horse 3433 State Com 401H	30-015-	3-15-21	3-25-21	4-15-21	5-1-21	5-15-21

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

## **Section 2 – Enhanced Plan**

### **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

#### **IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

#### **X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

***If Operator checks this box, Operator will select one of the following:***

**Well Shut-In.** ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

**Venting and Flaring Plan.** ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

### **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: *Tina Huerta*

Printed Name: Tina Huerta

Title: Regulatory Specialist

E-mail Address: tina\_huerta@eogresources.com

Date: 12/27/21

Phone: 575-703-3121

**OIL CONSERVATION DIVISION**  
**(Only applicable when submitted as a standalone form)**

Approved By:

Title:

Approval Date:

Conditions of Approval:

## EOG Resources, Inc. Natural Gas Management Plan

### VI. Separation Equipment

Separation equipment will be built on the War Horse pad. The anticipated production rates from the War Horse will be accounted for during design/construction to ensure sufficient capacity exists at the surface to capture all produced fluids.

### VII. Operational Practices

EOG Resources, Inc. will take the following actions outlined below to comply with 19.15.27.8 NMAC

A. EOG Resources, Inc. plans to maximize recovery of natural gas and minimize waste thru venting/flaring

B. EOG Resources, Inc. plans to flare during drilling operations from a location exceeding 100' away from the SHL. The flare will be used to combust natural gas brought to the surface during normal drilling operations. Safety will remain priority #1, and EOG Resources, Inc. will account and report appropriately pertaining to any potential emergency.

C. EOG Resources, Inc. plans flare any natural gas brought to the surface during normal completions operations. During flowback, fluids will immediately flow thru a separator on location. Gas will not be flared/vented unless there's a safety concern with pressures at the surface. Gas is expected to meet pipeline standards; if not, EOG Resources, Inc. will flare for the allowed 60 days or less until the gas meets quality specifications. EOG Resources, Inc. plans to sample the produced gas at a reasonable frequency or upon request from regulatory bodies.

D. EOG Resources, Inc. does not plan to flare or vent natural gas except during the situations outlined in 19.15.27.8 D. (1-4).

E. EOG Resources, Inc. will comply with standards outlined in 19.15.27.8 E. (1-8). EOG Resources, Inc. will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, EOG Resources, Inc. will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

### VIII. Best Management Practices

Pressure maintenance at surface is vital to maintain safe working conditions; venting will be utilized only to depressurize our surface equipment. When maintaining surface or downhole equipment associated with the current production, the well will be shut-in to eliminate venting. If maintenance work takes place on the gas gathering side, gas will route to the flare to eliminate venting.