

**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 273077

**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
4. Property Code 326197		3. API Number 30-015-46368
5. Property Name WAR DOG 34 STATE COM		6. Well No. 402H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
L	35	16S	27E		2403	S	577	W	Eddy

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
L	34	16S	27E	L	3018	N	100	W	Eddy

**9. Pool Information**

WC 015 G5 1627S35 M; 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 3419
16. Multiple N	17. Proposed Depth 11817	18. Formation Abo	19. Contractor	20. Spud Date 7/1/2020
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	420	0
Prod	8.75	5.5	20	6373	1023	0
Prod	8.5	5.5	20	11817	1023	

**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.  Signature:	<b>OIL CONSERVATION DIVISION</b>
Printed Name: Electronically filed by Kay Maddox	Approved By: Raymond Podany
Title: Regulatory Agent	Title: Geologist
Email Address: kay_maddox@eogresources.com	Approved Date: 10/10/2019      Expiration Date: 10/10/2021
Date: 10/8/2019      Phone: 432-686-3658	Conditions of Approval Attached

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

FORM C-102

Revised August 1, 2011

Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name Wildcat; Abo
<sup>4</sup> Property Code	<sup>5</sup> Property Name WAR DOG 34 STATE COM	<sup>6</sup> Well Number 402H
<sup>7</sup> OGRID No. 7377	<sup>8</sup> Operator Name EOG RESOURCES, INC.	<sup>9</sup> Elevation 3419'

<sup>10</sup>Surface Location

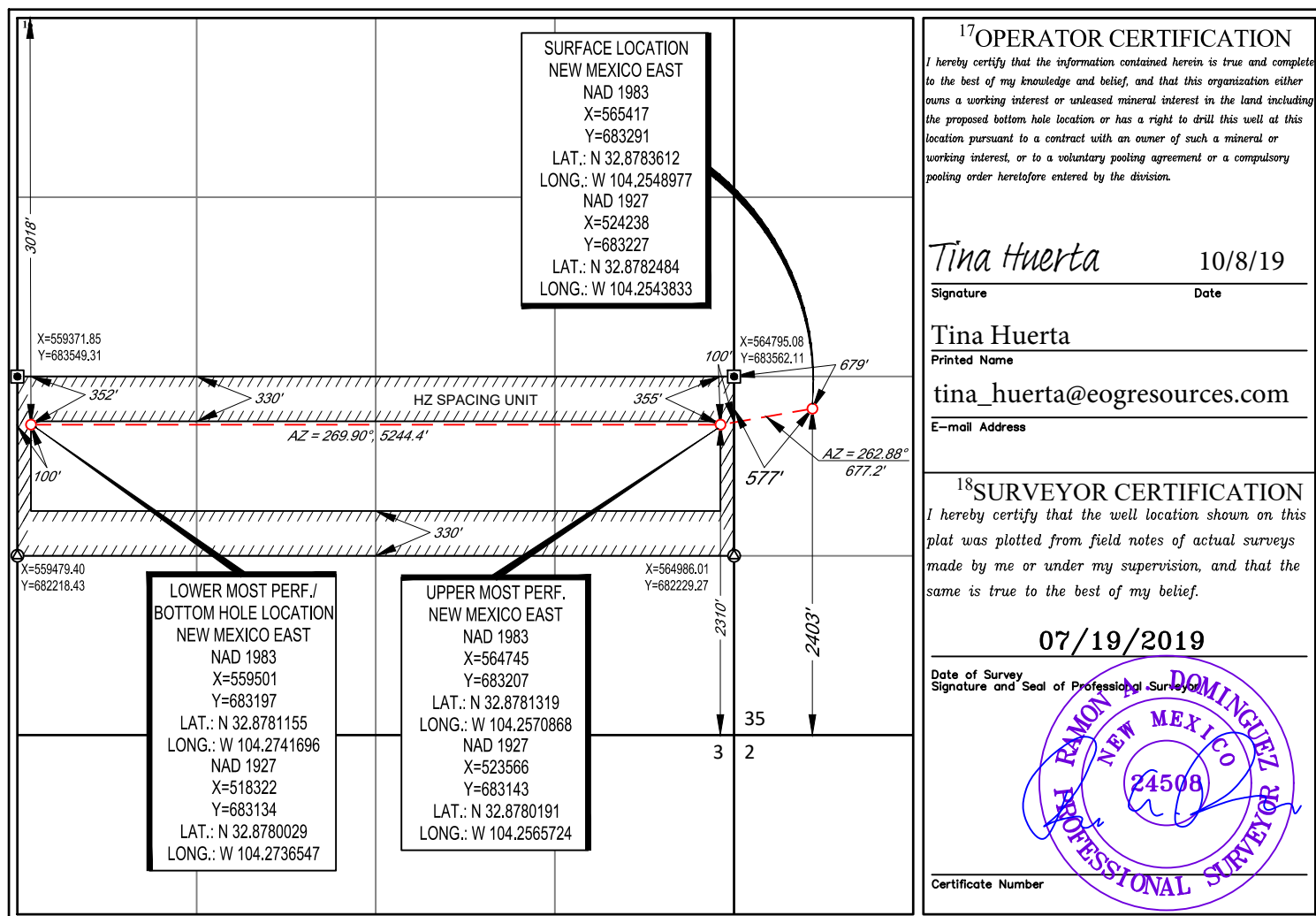
UL or lot no. L	Section 35	Township 16-S	Range 27-E	Lot Idn -	Feet from the 2403	North/South line SOUTH	Feet from the 577	East/West line WEST	County EDDY
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<sup>11</sup>Bottom Hole Location If Different From Surface

UL or lot no. L	Section 34	Township 16-S	Range 27-E	Lot Idn -	Feet from the 3018	North/South line NORTH	Feet from the 100	East/West line WEST	County EDDY
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<sup>12</sup> Dedicated Acres 167	<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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**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

**GAS CAPTURE PLAN**

Date: 10/10/2019

☒ Original

Operator & OGRID No.: [7377] EOG RESOURCES INC

☐ Amended - Reason for  
Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

**Well(s)/Production Facility – Name of facility**

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
WAR DOG 34 STATE COM #402H	30-015-46368	L-35-16S-27E	2403S 0577W	500	None	

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Lucid Artesia Company and will be connected to Lucid Artesia Company Low Pressure gathering system located in Eddy County, New Mexico. It will require 500' of pipeline to connect the facility to Low Pressure gathering system. EOG RESOURCES INC provides (periodically) to Lucid Artesia Company a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, EOG RESOURCES INC and Lucid Artesia Company have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Lucid Artesia Company Processing Plant located in Sec. 26, Twn. 18S, Rng. 25E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

**Flowback Strategy**

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Lucid Artesia Company system at that time. Based on current information, it is EOG RESOURCES INC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

**Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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**Santa Fe, NM 87505**

Form APD Comments

Permit 273077

PERMIT COMMENTS

Operator Name and Address: EOG RESOURCES INC [7377] P.O. Box 2267 Midland, TX 79702		API Number: 30-015-46368
		Well: WAR DOG 34 STATE COM #402H

Created By	Comment	Comment Date
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Form APD Conditions  
  
Permit 273077

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: EOG RESOURCES INC [7377] P.O. Box 2267 Midland, TX 79702		API Number: 30-015-46368
		Well: WAR DOG 34 STATE COM #402H
OCD Reviewer	Condition	
rpodany	Will require a directional survey with the C-104	
rpodany	Cement is required to circulate on both surface and intermediate1 strings of casing	

**State Permit Information:****Well Name: War Dog 34 State Com #402H****Location:**

SL: 2403' FSL 577' FWL, Unit L 35-16S-27E

BHL: 3018' FNL 100' FWL, Unit L 34-16S-27E

**Casing Program:**

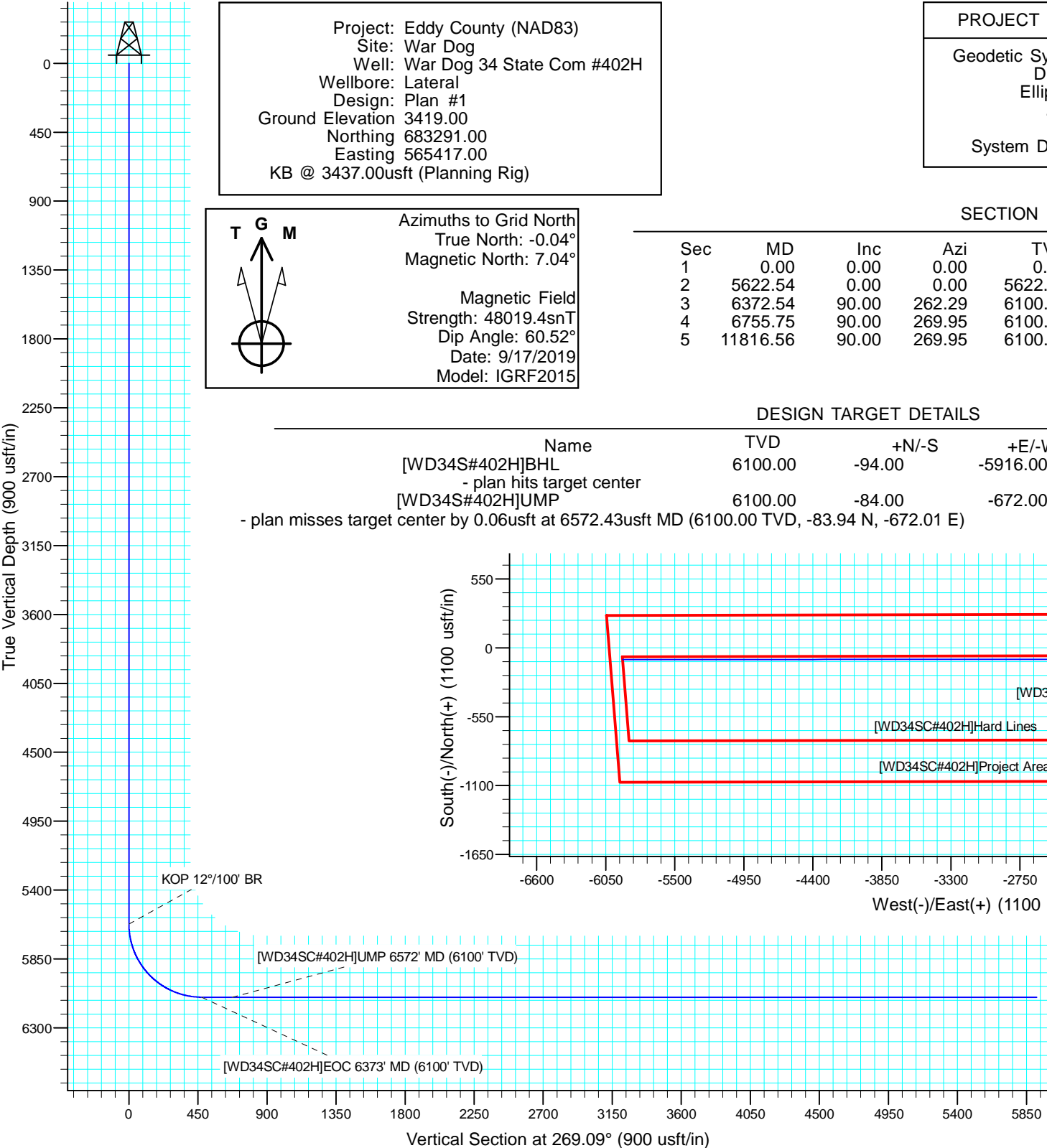
Hole Size	Interval	Csg OD	Weight	Grade	Conn	DF <sub>min</sub> Collapse	DF <sub>min</sub> Burst	DF <sub>min</sub> Tension
12.25"	0'-1,100'	9.625"	36#	J-55	LTC	1.125	1.25	1.80
8.75"	0'-6,373'	5.5"	20#	L-80	BTC	1.125	1.25	1.80
8.50"	6,373'-11,817'	5.5"	20#	L-80	BTC	1.125	1.25	1.80

**Cement Program:**

Depth	No. Sacks	Wt. lb/gal	Yld Ft <sup>3</sup> /ft	Slurry Description
1,100'	210	12.9	1.97	Lead: Class 'C' + 4%PF20(Bentonite Gel) + 2%PF1(Calcium Chloride) + 0.125#/skPF29(Celloflake) + 0.4#/skPF45 (Defoamer) 100% Excess (TOC @ Surface)
	210	14.8	1.34	Tail: Class 'C' + 2%PF1(Calcium Chloride)
11,817'	955	11.9	2.47	Lead: Class 50/50 PozC + 5%PF44(BWOW)(Salt) + 10% PF20(Bentonite Gel) +.2%PF153(Anti Settling Agent( + 3#/sk OF42(Kolseal) + 0.125#/sk PF29 (celloflake) + 0.4#/sk PF45 (Defoamer) (TOC @ Surface) 35% Excess
	1090	13	1.48	Tail: Class PVL + 1.3% PF44(BWOW)(Salt) + 5% PF174 (Expanding Cement) + 0.5% PF606 (Fluid Loss) + 0.1% PF153 (Anti Settling Agent) + 0.4#/sk PF45 (Defoamer) 35% Excess

**Mud Program:**

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0-1,100'	Fresh Water	8.6-8.8	28-32	N/c
1,100'-11,817'	Cut Brine	8.8-9.6	34-40	Less than



Project: Eddy County (NAD83)  
Site: War Dog  
Well: War Dog 34 State Com #402H  
Wellbore: Lateral  
Design: Plan #1  
Ground Elevation 3419.00  
Northing 683291.00  
Easting 565417.00  
KB @ 3437.00usft (Planning Rig)

T G M

Azimuths to Grid North  
True North: -0.04°  
Magnetic North: 7.04°  
  
Magnetic Field  
Strength: 48019.4snT  
Dip Angle: 60.52°  
Date: 9/17/2019  
Model: IGRF2015

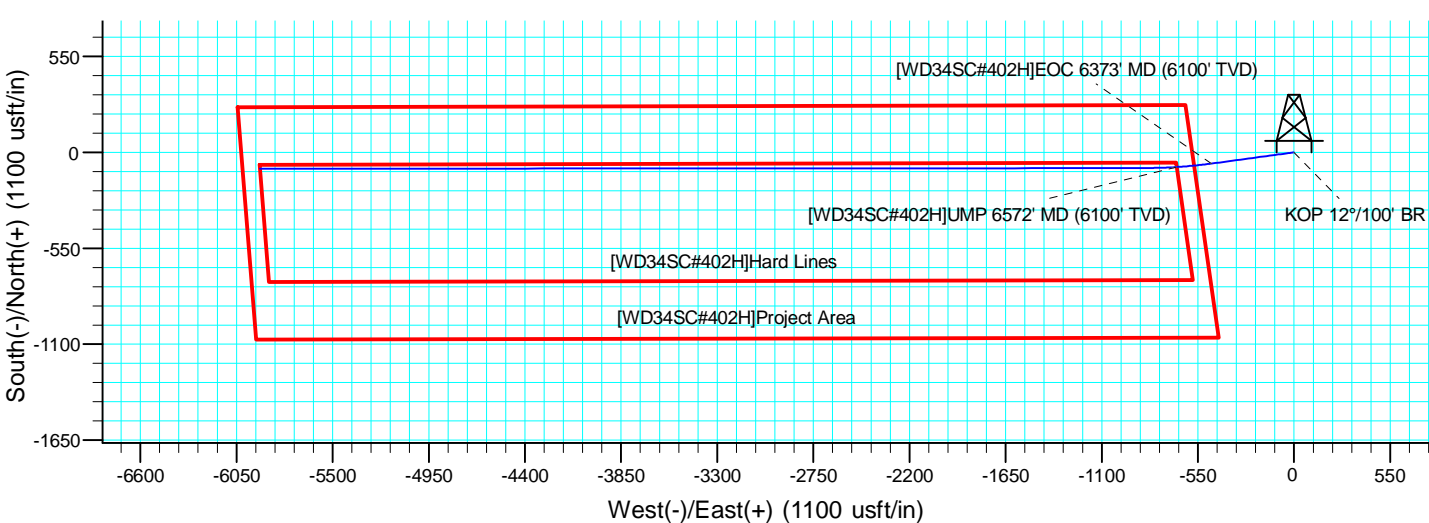
PROJECT DETAILS: Eddy County (NAD83)

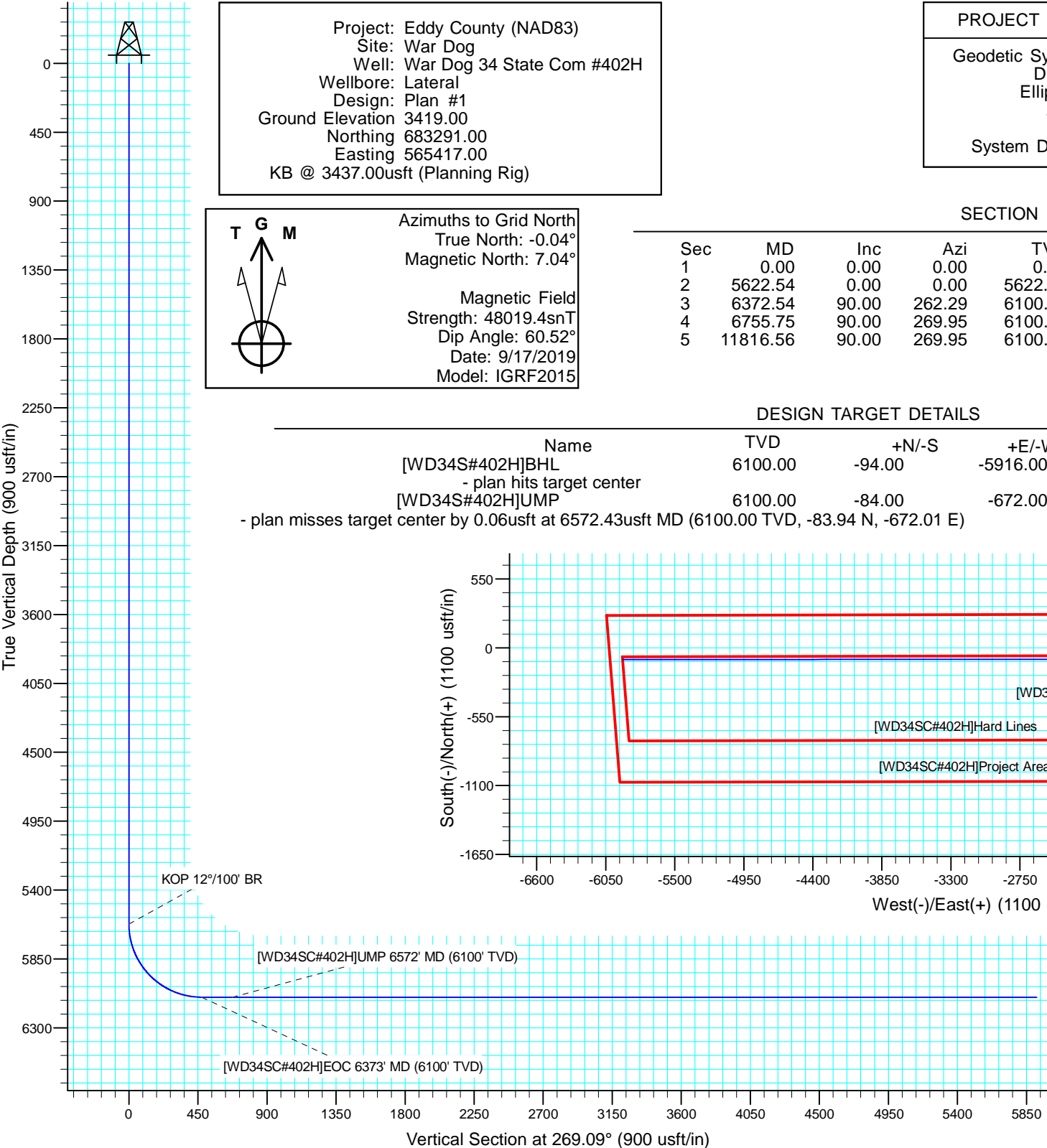
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5622.54	0.00	0.00	5622.54	0.00	0.00	0.00	0.00	0.00
3	6372.54	90.00	262.29	6100.00	-64.06	-473.15	12.00	262.29	474.11
4	6755.75	90.00	269.95	6100.00	-89.95	-855.20	2.00	90.00	856.52
5	11816.56	90.00	269.95	6100.00	-94.00	-5916.00	0.00	0.00	5916.75

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
[WD34S#402H]BHL	6100.00	-94.00	-5916.00	683197.00	559501.00
- plan hits target center					
[WD34S#402H]UMP	6100.00	-84.00	-672.00	683207.00	564745.00
- plan misses target center by 0.06usft at 6572.43usft MD (6100.00 TVD, -83.94 N, -672.01 E)					





Project: Eddy County (NAD83)  
Site: War Dog  
Well: War Dog 34 State Com #402H  
Wellbore: Lateral  
Design: Plan #1  
Ground Elevation 3419.00  
Northing 683291.00  
Easting 565417.00  
KB @ 3437.00usft (Planning Rig)

T G M

Azimuths to Grid North  
True North: -0.04°  
Magnetic North: 7.04°  
  
Magnetic Field  
Strength: 48019.4snT  
Dip Angle: 60.52°  
Date: 9/17/2019  
Model: IGRF2015

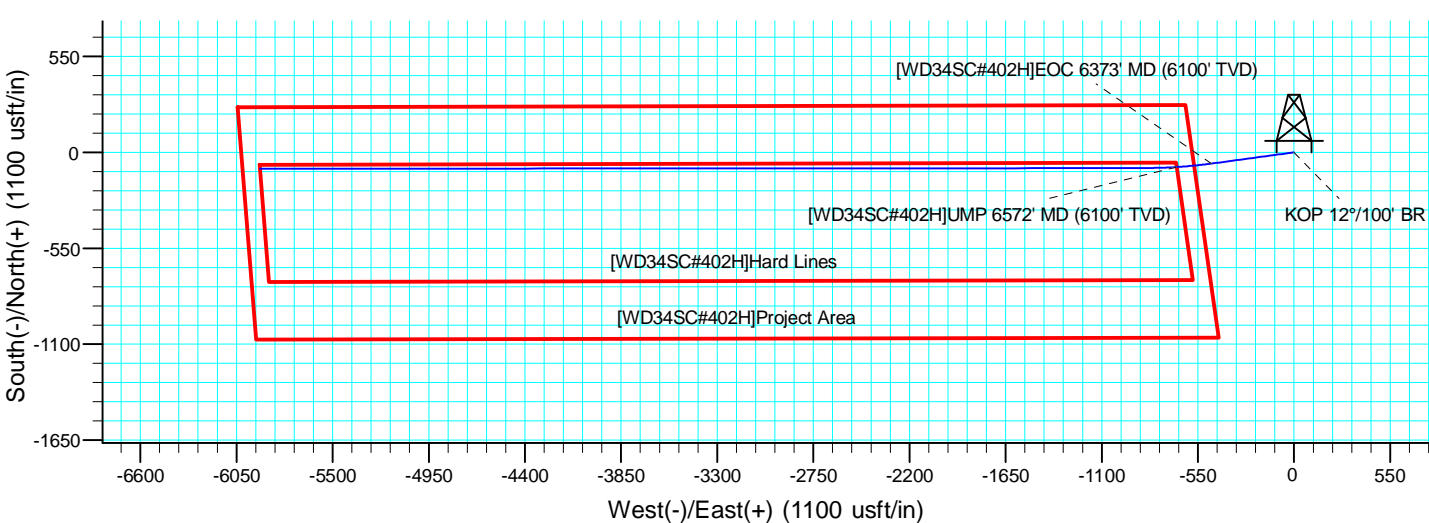
PROJECT DETAILS: Eddy County (NAD83)

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

System Datum: Mean Sea Level

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5622.54	0.00	0.00	5622.54	0.00	0.00	0.00	0.00	0.00
3	6372.54	90.00	262.29	6100.00	-64.06	-473.15	12.00	262.29	474.11
4	6755.75	90.00	269.95	6100.00	-89.95	-855.20	2.00	90.00	856.52
5	11816.56	90.00	269.95	6100.00	-94.00	-5916.00	0.00	0.00	5916.75

DESIGN TARGET DETAILS					
Name	TVD	+N/-S	+E/-W	Northing	Easting
[WD34S#402H]BHL	6100.00	-94.00	-5916.00	683197.00	559501.00
- plan hits target center					
[WD34S#402H]UMP	6100.00	-84.00	-672.00	683207.00	564745.00
- plan misses target center by 0.06usft at 6572.43usft MD (6100.00 TVD, -83.94 N, -672.01 E)					





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