

Submit a 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 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

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.)		WELL API NO. 30-025-49282
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator EOG Resources		6. State Oil & Gas Lease No.
3. Address of Operator 5509 CHAMPION DRIVE, MIDLAND, TEXAS 79703		7. Lease Name or Unit Agreement Name DRAGON 36 STATE
4. Well Location Unit Letter <u>M</u> : <u>664</u> feet from the <u>SOUTH</u> line and <u>758</u> feet from the <u>WEST</u> line Section <u>36</u> Township <u>24S</u> Range <u>33E</u> NMPM County <u>LEA CO NM</u>		8. Well Number <u>509H</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3491 GL		9. OGRID Number 7377
		10. Pool name or Wildcat RED HILLS; LOWER BONE SPRING

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

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK ☐	REMEDIAL WORK ☐
TEMPORARILY ABANDON ☐	ALTERING CASING ☐
PULL OR ALTER CASING ☐	COMMENCE DRILLING OPNS. ☐
DOWNHOLE COMMINGLE ☐	P AND A ☐
CLOSED-LOOP SYSTEM ☐	CASING/CEMENT JOB ☐
OTHER: ☐	OTHER: <u>APD CHANGE</u> ☒

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.

EOG respectfully requests and amendment to our approved APD for this well to reflect the following changes:

Change the BHL, 100' FNL & 1574' FWL, Sec 36. T-24-S, R-33-E, Lea Co., NM

Spud Date:

Rig Release Date:

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

SIGNATURE Star L Harrell TITLE Sr. Regulatory Specialist DATE 8-17-2021

Type or print name Star L Harrell E-mail address: sharrell@eogresources.com PHONE: 432-848-9161

For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

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 30-025-49282	² Pool Code 51020	³ Pool Name Red Hills; Lower Bone Spring
⁴ Property Code 39643	⁵ Property Name DRAGON 36 STATE	
⁷ OGRID No. 7377	⁸ Operator Name EOG RESOURCES, INC.	⁶ Well Number 509H
		⁹ Elevation 3491'

¹⁰Surface Location

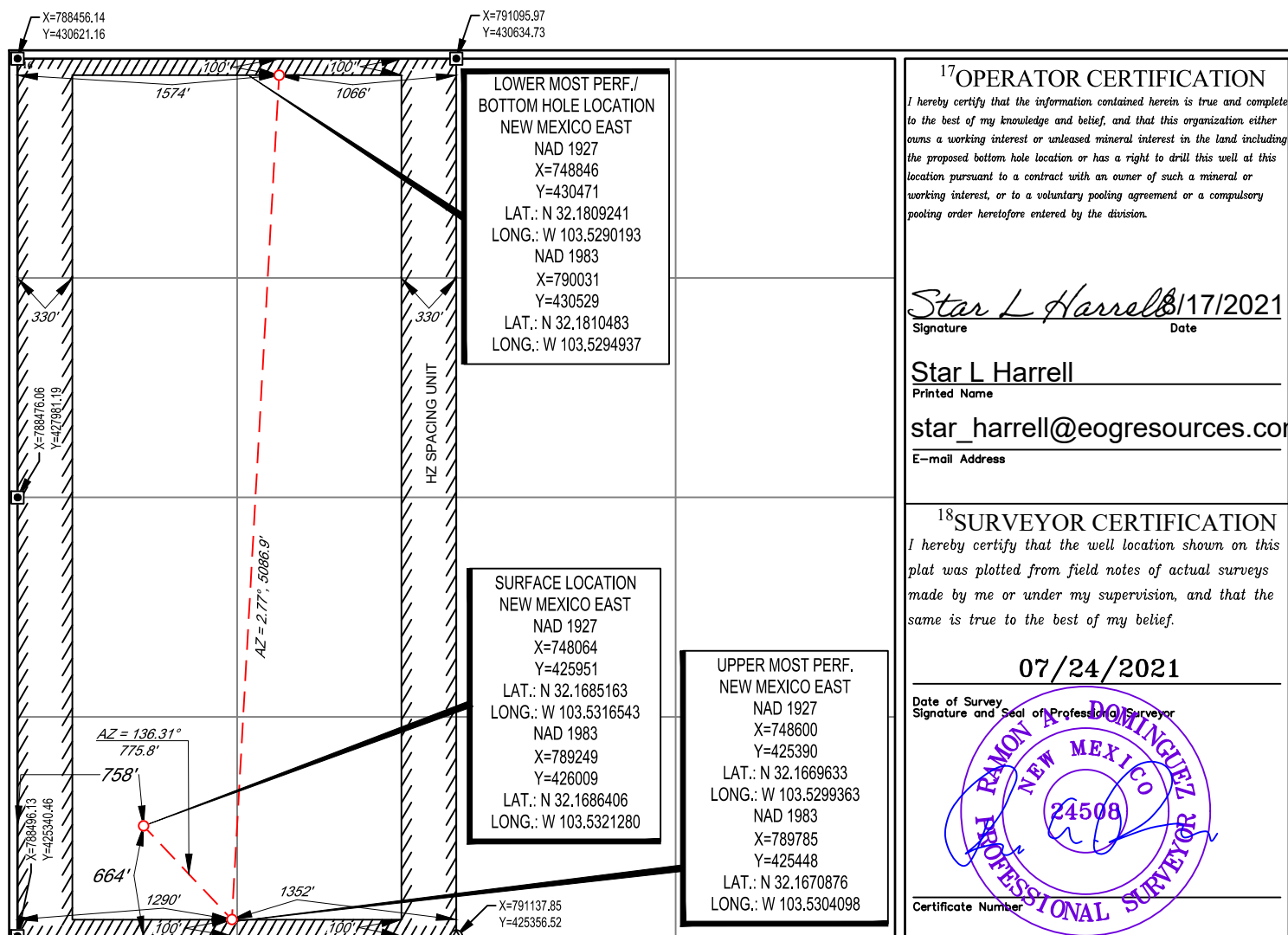
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	36	24-S	33-E	-	664'	SOUTH	758'	WEST	LEA

¹¹Bottom 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
C	36	24-S	33-E	—	100'	NORTH	1574'	WEST	LEA

¹² Dedicated Acres 320.00	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.





Dragon 36 State 509H

Revised Permit Information 08/16/2021:

Well Name: Dragon 36 State 509H

Location: SHL: 664' FSL & 758' FWL, Section 36, T-24-S, R-33-E, Lea Co., N.M.

BHL: 100' FNL & 1574' FWL, Section 36, T-24-S, R-33-E, Lea Co., N.M.

Casing Program:

Hole Size	Interval	Csg OD	Weight	Grade	Conn	DFmin Collapse	DFmin Burst	DFmin Tension
16"	0' - 1,310'	13.375"	54.5#	J-55	STC	1.125	1.25	1.6
12.25"	0' - 4,000'	9.625"	40#	J-55	LTC	1.125	1.25	1.6
12.25"	4,000' - 5,110'	9.625"	40#	HCK-55	LTC	1.125	1.25	1.6
8.75"	0' - 11,446'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.6
8.5"	11,446' - 16,111'	5.5"	17#	HCP-110	LTC	1.125	1.25	1.6

Variance is requested to waive the centralizer requirements for the 9-5/8" casing in the 12-1/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 12-1/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 8-3/4" and 8-1/2" hole sizes. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" and 8-1/2" hole intervals to maximize cement bond and zonal isolation.

Cementing Program:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,310' 13.375"	390	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl ₂ + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	100	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1,110')
5,110' 9.625"	740	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	320	14.8	1.32	Tail: Class C + 10% NaCl + 3% MagOx (TOC @ 4,090')
16,111' 5.5"	610	11.0	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4,608')
	1330	14.4	1.2	Tail: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,701')

**Dragon 36 State 509H**

Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

Mud Program:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,310'	Fresh - Gel	8.6-8.8	28-34	N/c
1,310' – 5,110'	Brine	8.6-8.8	28-34	N/c
5,110' – 16,111'	Oil Base	8.8-9.5	58-68	N/c - 6



Dragon 36 State 509H

664' FSL
758' FWL
Section 36
T-24-S, R-33-E

Revised Wellbore

KB: 3516'
GL: 3491'

API: 30-025-49282

Bit Size: 16"
13-3/8", 54.5#, J-55, STC, 0' - 1,310'

Bit Size: 12-1/4"
9-5/8" 40#, J-55, LTC, 0' - 4,000'
9-5/8" 40#, HCK-55, LTC, 4,000' - 5,110'

Bit Size: 8-3/4"
5-1/2" 17#, HCP-110, LTC@ 0' - 16,111'

TOC: 4,608'

KOP: 10,701'

Lateral: 16,111' MD, 11,172' TVD
Upper Most Perf:
100' FSL & 1290' FWL Sec. 36
Lower Most Perf:
100' FNL & 1574' FWL Sec. 36
BH Location: 100' FNL & 1574' FWL
Sec. 36
T-24-S R-33-E

Bit Size: 8-1/2"



Midland

Lea County, NM (NAD 83 NME)

Dragon 36 State

#509H

142646

OH

Plan: Plan #0.2

Standard Planning Report

16 August, 2021



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	Kb = 26' @ 3517.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	Kb = 26' @ 3517.0usft
Site:	Dragon 36 State	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Project	Lea County, NM (NAD 83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Dragon 36 State				
Site Position:		Northing:	426,079.00 usft	Latitude:	32° 10' 7.510 N
From:	Map	Easting:	793,102.00 usft	Longitude:	103° 31' 10.836 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	#509H					
Well Position	+N/-S	0.0 usft	Northing:	426,009.00 usft	Latitude:	32° 10' 7.103 N
	+E/-W	0.0 usft	Easting:	789,249.00 usft	Longitude:	103° 31' 55.666 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,491.0 usft
Grid Convergence:		0.43 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/3/2021	6.51	59.85	47,450.94314149

Design	Plan #0.2				
Audit Notes:					
Version:		Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	9.82	

Plan Survey Tool Program	Date	8/16/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	16,110.7 Plan #0.2 (OH)	EOG MWD+IFR1		
			MWD + IFR1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,788.8	7.78	138.74	1,787.6	-19.8	17.4	2.00	2.00	0.00	138.74	
7,406.2	7.78	138.74	7,353.4	-591.2	518.6	0.00	0.00	0.00	0.00	
7,795.0	0.00	0.00	7,741.0	-611.0	536.0	2.00	-2.00	0.00	180.00	
10,701.0	0.00	0.00	10,647.0	-611.0	536.0	0.00	0.00	0.00	0.00	
11,446.2	89.42	2.74	11,124.4	-138.9	558.6	12.00	12.00	0.37	2.74	
16,110.7	89.42	2.74	11,172.0	4,520.0	782.0	0.00	0.00	0.00	0.00	PBHL(Dragon 36 Stat



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	Kb = 26' @ 3517.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	Kb = 26' @ 3517.0usft
Site:	Dragon 36 State	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	2.00	138.74	1,500.0	-1.3	1.2	-1.1	2.00	2.00	0.00
1,600.0	4.00	138.74	1,599.8	-5.2	4.6	-4.4	2.00	2.00	0.00
1,700.0	6.00	138.74	1,699.5	-11.8	10.3	-9.9	2.00	2.00	0.00
1,788.8	7.78	138.74	1,787.6	-19.8	17.4	-16.6	2.00	2.00	0.00
1,800.0	7.78	138.74	1,798.7	-20.9	18.4	-17.5	0.00	0.00	0.00
1,900.0	7.78	138.74	1,897.8	-31.1	27.3	-26.0	0.00	0.00	0.00
2,000.0	7.78	138.74	1,996.9	-41.3	36.2	-34.5	0.00	0.00	0.00
2,100.0	7.78	138.74	2,095.9	-51.5	45.1	-43.0	0.00	0.00	0.00
2,200.0	7.78	138.74	2,195.0	-61.6	54.1	-51.5	0.00	0.00	0.00
2,300.0	7.78	138.74	2,294.1	-71.8	63.0	-60.0	0.00	0.00	0.00
2,400.0	7.78	138.74	2,393.2	-82.0	71.9	-68.5	0.00	0.00	0.00
2,500.0	7.78	138.74	2,492.3	-92.1	80.8	-77.0	0.00	0.00	0.00
2,600.0	7.78	138.74	2,591.3	-102.3	89.8	-85.5	0.00	0.00	0.00
2,700.0	7.78	138.74	2,690.4	-112.5	98.7	-94.0	0.00	0.00	0.00
2,800.0	7.78	138.74	2,789.5	-122.7	107.6	-102.5	0.00	0.00	0.00
2,900.0	7.78	138.74	2,888.6	-132.8	116.5	-111.0	0.00	0.00	0.00
3,000.0	7.78	138.74	2,987.7	-143.0	125.4	-119.5	0.00	0.00	0.00
3,100.0	7.78	138.74	3,086.7	-153.2	134.4	-128.0	0.00	0.00	0.00
3,200.0	7.78	138.74	3,185.8	-163.3	143.3	-136.5	0.00	0.00	0.00
3,300.0	7.78	138.74	3,284.9	-173.5	152.2	-145.0	0.00	0.00	0.00
3,400.0	7.78	138.74	3,384.0	-183.7	161.1	-153.5	0.00	0.00	0.00
3,500.0	7.78	138.74	3,483.1	-193.9	170.1	-162.0	0.00	0.00	0.00
3,600.0	7.78	138.74	3,582.2	-204.0	179.0	-170.5	0.00	0.00	0.00
3,700.0	7.78	138.74	3,681.2	-214.2	187.9	-179.0	0.00	0.00	0.00
3,800.0	7.78	138.74	3,780.3	-224.4	196.8	-187.5	0.00	0.00	0.00
3,900.0	7.78	138.74	3,879.4	-234.5	205.8	-196.0	0.00	0.00	0.00
4,000.0	7.78	138.74	3,978.5	-244.7	214.7	-204.5	0.00	0.00	0.00
4,100.0	7.78	138.74	4,077.6	-254.9	223.6	-213.0	0.00	0.00	0.00
4,200.0	7.78	138.74	4,176.6	-265.1	232.5	-221.5	0.00	0.00	0.00
4,300.0	7.78	138.74	4,275.7	-275.2	241.5	-230.0	0.00	0.00	0.00
4,400.0	7.78	138.74	4,374.8	-285.4	250.4	-238.5	0.00	0.00	0.00
4,500.0	7.78	138.74	4,473.9	-295.6	259.3	-247.0	0.00	0.00	0.00
4,600.0	7.78	138.74	4,573.0	-305.8	268.2	-255.6	0.00	0.00	0.00
4,700.0	7.78	138.74	4,672.0	-315.9	277.1	-264.1	0.00	0.00	0.00
4,800.0	7.78	138.74	4,771.1	-326.1	286.1	-272.6	0.00	0.00	0.00
4,900.0	7.78	138.74	4,870.2	-336.3	295.0	-281.1	0.00	0.00	0.00
5,000.0	7.78	138.74	4,969.3	-346.4	303.9	-289.6	0.00	0.00	0.00
5,100.0	7.78	138.74	5,068.4	-356.6	312.8	-298.1	0.00	0.00	0.00
5,200.0	7.78	138.74	5,167.4	-366.8	321.8	-306.6	0.00	0.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	Kb = 26' @ 3517.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	Kb = 26' @ 3517.0usft
Site:	Dragon 36 State	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,300.0	7.78	138.74	5,266.5	-377.0	330.7	-315.1	0.00	0.00	0.00	
5,400.0	7.78	138.74	5,365.6	-387.1	339.6	-323.6	0.00	0.00	0.00	
5,500.0	7.78	138.74	5,464.7	-397.3	348.5	-332.1	0.00	0.00	0.00	
5,600.0	7.78	138.74	5,563.8	-407.5	357.5	-340.6	0.00	0.00	0.00	
5,700.0	7.78	138.74	5,662.8	-417.6	366.4	-349.1	0.00	0.00	0.00	
5,800.0	7.78	138.74	5,761.9	-427.8	375.3	-357.6	0.00	0.00	0.00	
5,900.0	7.78	138.74	5,861.0	-438.0	384.2	-366.1	0.00	0.00	0.00	
6,000.0	7.78	138.74	5,960.1	-448.2	393.1	-374.6	0.00	0.00	0.00	
6,100.0	7.78	138.74	6,059.2	-458.3	402.1	-383.1	0.00	0.00	0.00	
6,200.0	7.78	138.74	6,158.2	-468.5	411.0	-391.6	0.00	0.00	0.00	
6,300.0	7.78	138.74	6,257.3	-478.7	419.9	-400.1	0.00	0.00	0.00	
6,400.0	7.78	138.74	6,356.4	-488.8	428.8	-408.6	0.00	0.00	0.00	
6,500.0	7.78	138.74	6,455.5	-499.0	437.8	-417.1	0.00	0.00	0.00	
6,600.0	7.78	138.74	6,554.6	-509.2	446.7	-425.6	0.00	0.00	0.00	
6,700.0	7.78	138.74	6,653.6	-519.4	455.6	-434.1	0.00	0.00	0.00	
6,800.0	7.78	138.74	6,752.7	-529.5	464.5	-442.6	0.00	0.00	0.00	
6,900.0	7.78	138.74	6,851.8	-539.7	473.5	-451.1	0.00	0.00	0.00	
7,000.0	7.78	138.74	6,950.9	-549.9	482.4	-459.6	0.00	0.00	0.00	
7,100.0	7.78	138.74	7,050.0	-560.0	491.3	-468.1	0.00	0.00	0.00	
7,200.0	7.78	138.74	7,149.0	-570.2	500.2	-476.6	0.00	0.00	0.00	
7,300.0	7.78	138.74	7,248.1	-580.4	509.1	-485.1	0.00	0.00	0.00	
7,406.2	7.78	138.74	7,353.4	-591.2	518.6	-494.1	0.00	0.00	0.00	
7,500.0	5.90	138.74	7,446.5	-599.6	526.0	-501.1	2.00	-2.00	0.00	
7,600.0	3.90	138.74	7,546.1	-606.0	531.6	-506.5	2.00	-2.00	0.00	
7,700.0	1.90	138.74	7,646.0	-609.8	535.0	-509.7	2.00	-2.00	0.00	
7,795.0	0.00	0.00	7,741.0	-611.0	536.0	-510.7	2.00	-2.00	0.00	
7,800.0	0.00	0.00	7,746.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,846.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,946.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,046.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,146.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,246.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,346.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,446.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,546.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,646.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,746.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,846.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,946.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,046.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,146.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,246.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,346.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,446.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,546.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,646.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,746.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,846.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,946.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,046.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,146.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,246.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,346.0	-611.0	536.0	-510.7	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,446.0	-611.0	536.0	-510.7	0.00	0.00	0.00	



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	Kb = 26' @ 3517.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	Kb = 26' @ 3517.0usft
Site:	Dragon 36 State	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,600.0	0.00	0.00	10,546.0	-611.0	536.0	-510.7	0.00	0.00	0.00
10,701.0	0.00	0.00	10,647.0	-611.0	536.0	-510.7	0.00	0.00	0.00
10,725.0	2.87	2.74	10,670.9	-610.4	536.0	-510.1	12.00	12.00	0.00
10,750.0	5.87	2.74	10,695.9	-608.5	536.1	-508.2	12.00	12.00	0.00
10,775.0	8.87	2.74	10,720.7	-605.3	536.3	-505.0	12.00	12.00	0.00
10,800.0	11.87	2.74	10,745.2	-600.8	536.5	-500.5	12.00	12.00	0.00
10,825.0	14.87	2.74	10,769.6	-595.0	536.8	-494.8	12.00	12.00	0.00
10,850.0	17.87	2.74	10,793.5	-588.0	537.1	-487.8	12.00	12.00	0.00
10,875.0	20.87	2.74	10,817.1	-579.7	537.5	-479.6	12.00	12.00	0.00
10,900.0	23.87	2.74	10,840.2	-570.2	538.0	-470.1	12.00	12.00	0.00
10,925.0	26.87	2.74	10,862.8	-559.5	538.5	-459.5	12.00	12.00	0.00
10,950.0	29.87	2.74	10,884.8	-547.6	539.0	-447.7	12.00	12.00	0.00
10,975.0	32.87	2.74	10,906.2	-534.6	539.7	-434.8	12.00	12.00	0.00
11,000.0	35.87	2.74	10,926.8	-520.5	540.3	-420.8	12.00	12.00	0.00
11,025.0	38.87	2.74	10,946.7	-505.4	541.1	-405.7	12.00	12.00	0.00
11,050.0	41.87	2.74	10,965.7	-489.2	541.8	-389.7	12.00	12.00	0.00
11,075.0	44.87	2.74	10,983.9	-472.1	542.7	-372.6	12.00	12.00	0.00
11,100.0	47.87	2.74	11,001.1	-454.0	543.5	-354.7	12.00	12.00	0.00
11,125.0	50.87	2.74	11,017.4	-435.0	544.4	-335.8	12.00	12.00	0.00
11,150.0	53.87	2.74	11,032.7	-415.3	545.4	-316.2	12.00	12.00	0.00
11,175.0	56.87	2.74	11,046.9	-394.7	546.4	-295.8	12.00	12.00	0.00
11,200.0	59.87	2.74	11,060.0	-373.4	547.4	-274.7	12.00	12.00	0.00
11,225.0	62.87	2.74	11,071.9	-351.5	548.4	-252.9	12.00	12.00	0.00
11,250.0	65.87	2.74	11,082.8	-329.0	549.5	-230.5	12.00	12.00	0.00
11,275.0	68.87	2.74	11,092.4	-306.0	550.6	-207.6	12.00	12.00	0.00
11,300.0	71.87	2.74	11,100.8	-282.5	551.8	-184.3	12.00	12.00	0.00
11,325.0	74.87	2.74	11,107.9	-258.5	552.9	-160.5	12.00	12.00	0.00
11,350.0	77.87	2.74	11,113.8	-234.3	554.1	-136.4	12.00	12.00	0.00
11,375.0	80.87	2.74	11,118.4	-209.7	555.2	-112.0	12.00	12.00	0.00
11,400.0	83.87	2.74	11,121.7	-185.0	556.4	-87.4	12.00	12.00	0.00
11,425.0	86.87	2.74	11,123.8	-160.1	557.6	-62.7	12.00	12.00	0.00
11,446.2	89.42	2.74	11,124.4	-138.9	558.6	-41.7	12.00	12.00	0.00
11,500.0	89.42	2.74	11,125.0	-85.2	561.2	11.7	0.00	0.00	0.00
11,600.0	89.42	2.74	11,126.0	14.7	566.0	111.0	0.00	0.00	0.00
11,700.0	89.42	2.74	11,127.0	114.6	570.8	210.2	0.00	0.00	0.00
11,800.0	89.42	2.74	11,128.0	214.5	575.6	309.4	0.00	0.00	0.00
11,900.0	89.42	2.74	11,129.1	314.3	580.4	408.7	0.00	0.00	0.00
12,000.0	89.42	2.74	11,130.1	414.2	585.2	507.9	0.00	0.00	0.00
12,100.0	89.42	2.74	11,131.1	514.1	589.9	607.1	0.00	0.00	0.00
12,200.0	89.42	2.74	11,132.1	614.0	594.7	706.4	0.00	0.00	0.00
12,300.0	89.42	2.74	11,133.1	713.9	599.5	805.6	0.00	0.00	0.00
12,400.0	89.42	2.74	11,134.2	813.7	604.3	904.8	0.00	0.00	0.00
12,500.0	89.42	2.74	11,135.2	913.6	609.1	1,004.1	0.00	0.00	0.00
12,600.0	89.42	2.74	11,136.2	1,013.5	613.9	1,103.3	0.00	0.00	0.00
12,700.0	89.42	2.74	11,137.2	1,113.4	618.7	1,202.5	0.00	0.00	0.00
12,800.0	89.42	2.74	11,138.2	1,213.3	623.5	1,301.8	0.00	0.00	0.00
12,900.0	89.42	2.74	11,139.3	1,313.1	628.3	1,401.0	0.00	0.00	0.00
13,000.0	89.42	2.74	11,140.3	1,413.0	633.0	1,500.2	0.00	0.00	0.00
13,100.0	89.42	2.74	11,141.3	1,512.9	637.8	1,599.5	0.00	0.00	0.00
13,200.0	89.42	2.74	11,142.3	1,612.8	642.6	1,698.7	0.00	0.00	0.00
13,300.0	89.42	2.74	11,143.3	1,712.7	647.4	1,797.9	0.00	0.00	0.00
13,400.0	89.42	2.74	11,144.4	1,812.5	652.2	1,897.2	0.00	0.00	0.00
13,500.0	89.42	2.74	11,145.4	1,912.4	657.0	1,996.4	0.00	0.00	0.00
13,600.0	89.42	2.74	11,146.4	2,012.3	661.8	2,095.7	0.00	0.00	0.00



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	Kb = 26' @ 3517.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	Kb = 26' @ 3517.0usft
Site:	Dragon 36 State	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,700.0	89.42	2.74	11,147.4	2,112.2	666.6	2,194.9	0.00	0.00	0.00	
13,800.0	89.42	2.74	11,148.4	2,212.1	671.3	2,294.1	0.00	0.00	0.00	
13,900.0	89.42	2.74	11,149.5	2,311.9	676.1	2,393.4	0.00	0.00	0.00	
14,000.0	89.42	2.74	11,150.5	2,411.8	680.9	2,492.6	0.00	0.00	0.00	
14,100.0	89.42	2.74	11,151.5	2,511.7	685.7	2,591.8	0.00	0.00	0.00	
14,200.0	89.42	2.74	11,152.5	2,611.6	690.5	2,691.1	0.00	0.00	0.00	
14,300.0	89.42	2.74	11,153.5	2,711.5	695.3	2,790.3	0.00	0.00	0.00	
14,400.0	89.42	2.74	11,154.6	2,811.3	700.1	2,889.5	0.00	0.00	0.00	
14,500.0	89.42	2.74	11,155.6	2,911.2	704.9	2,988.8	0.00	0.00	0.00	
14,600.0	89.42	2.74	11,156.6	3,011.1	709.7	3,088.0	0.00	0.00	0.00	
14,700.0	89.42	2.74	11,157.6	3,111.0	714.4	3,187.2	0.00	0.00	0.00	
14,800.0	89.42	2.74	11,158.6	3,210.9	719.2	3,286.5	0.00	0.00	0.00	
14,900.0	89.42	2.74	11,159.7	3,310.7	724.0	3,385.7	0.00	0.00	0.00	
15,000.0	89.42	2.74	11,160.7	3,410.6	728.8	3,484.9	0.00	0.00	0.00	
15,100.0	89.42	2.74	11,161.7	3,510.5	733.6	3,584.2	0.00	0.00	0.00	
15,200.0	89.42	2.74	11,162.7	3,610.4	738.4	3,683.4	0.00	0.00	0.00	
15,300.0	89.42	2.74	11,163.7	3,710.3	743.2	3,782.6	0.00	0.00	0.00	
15,400.0	89.42	2.74	11,164.8	3,810.1	748.0	3,881.9	0.00	0.00	0.00	
15,500.0	89.42	2.74	11,165.8	3,910.0	752.8	3,981.1	0.00	0.00	0.00	
15,600.0	89.42	2.74	11,166.8	4,009.9	757.5	4,080.3	0.00	0.00	0.00	
15,700.0	89.42	2.74	11,167.8	4,109.8	762.3	4,179.6	0.00	0.00	0.00	
15,800.0	89.42	2.74	11,168.8	4,209.7	767.1	4,278.8	0.00	0.00	0.00	
15,900.0	89.42	2.74	11,169.9	4,309.5	771.9	4,378.0	0.00	0.00	0.00	
16,000.0	89.42	2.74	11,170.9	4,409.4	776.7	4,477.3	0.00	0.00	0.00	
16,100.0	89.42	2.74	11,171.9	4,509.3	781.5	4,576.5	0.00	0.00	0.00	
16,110.7	89.42	2.74	11,172.0	4,520.0	782.0	4,587.1	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Brushy Top(Dragon 36 S - hit/miss target - Shape - Polygon	0.00	0.00	7,741.0	-611.0	536.0	425,398.00	789,785.00	32° 10' 1.018 N	103° 31' 49.484 W	
Point 1			7,741.0	50.0	-60.0	425,448.00	789,725.00			
Point 2			7,741.0	50.0	60.0	425,448.00	789,845.00			
Point 3			7,741.0	-30.0	60.0	425,368.00	789,845.00			
Point 4			7,741.0	-30.0	-60.0	425,368.00	789,725.00			
PBHL(Dragon 36 State # - plan hits target center - Rectangle (sides W60.0 H0.0 D1,236.0)	90.00	11.05	11,172.0	4,520.0	782.0	430,529.00	790,031.00	32° 10' 51.772 N	103° 31' 46.176 W	
TGT#1(Dragon 36 State - plan misses target center by 198.5usft at 14496.5usft MD (11155.5 TVD, 2907.7 N, 704.7 E) - Rectangle (sides W60.0 H0.0 D3,477.0)	90.00	359.57	11,192.0	2,916.7	509.8	428,925.70	789,758.82	32° 10' 35.927 N	103° 31' 49.482 W	
FTP(Dragon 36 State #5 - plan misses target center by 237.5usft at 11148.7usft MD (11031.9 TVD, -416.3 N, 545.3 E) - Point	0.00	0.00	11,220.0	-561.0	536.0	425,448.00	789,785.00	32° 10' 1.512 N	103° 31' 49.479 W	



Planning Report

Database:	PEDM	Local Co-ordinate Reference:	Well #509H
Company:	Midland	TVD Reference:	Kb = 26' @ 3517.0usft
Project:	Lea County, NM (NAD 83 NME)	MD Reference:	Kb = 26' @ 3517.0usft
Site:	Dragon 36 State	North Reference:	Grid
Well:	#509H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #0.2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,191.0	1,191.0	Rustler				
1,277.0	1,277.0	Tamarisk Anhydrite				
1,697.5	1,697.0	Top of Salt				
5,039.1	5,008.0	Bottom of Salt				
5,289.4	5,256.0	Lamar				
5,311.6	5,278.0	Bell Canyon				
6,272.4	6,230.0	Cherry Canyon				
7,795.0	7,741.0	Brushy Canyon Por. MKR				
7,842.0	7,788.0	Brushy Canyon				
9,327.0	9,273.0	Bone Spring Lime				
9,403.0	9,349.0	Leonard A				
9,728.0	9,674.0	Leonard B				
10,321.0	10,267.0	First Bone Spring Sand				
10,564.0	10,510.0	Second Bone Spring Shale				
10,910.7	10,850.0	Second Bone Spring Sand				
15,326.1	11,164.0	SBSG D2 Sand				

Lea County, NM (NAD 83 NME)

Dragon 36 State #509H

Plan #0.2

PROJECT DETAILS: Lea County, NM (NAD 83 NME)

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

Azimuths to Grid North
True North: -0.43°
Magnetic North: 6.08°

Magnetic Field
Strength: 47450.9nT
Dip Angle: 59.85°
Date: 8/3/2021
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.08°
To convert a Magnetic Direction to a True Direction, Add 6.51° East
To convert a True Direction to a Grid Direction, Subtract 0.43°

WELL DETAILS: #509H

3491.0
Kb = 26' @ 3517.0usft
Northing 426009.00 Easting 789249.00 Latitude 32° 10' 7.103 N Longitude 103° 31' 55.666 W

SECTION DETAILS

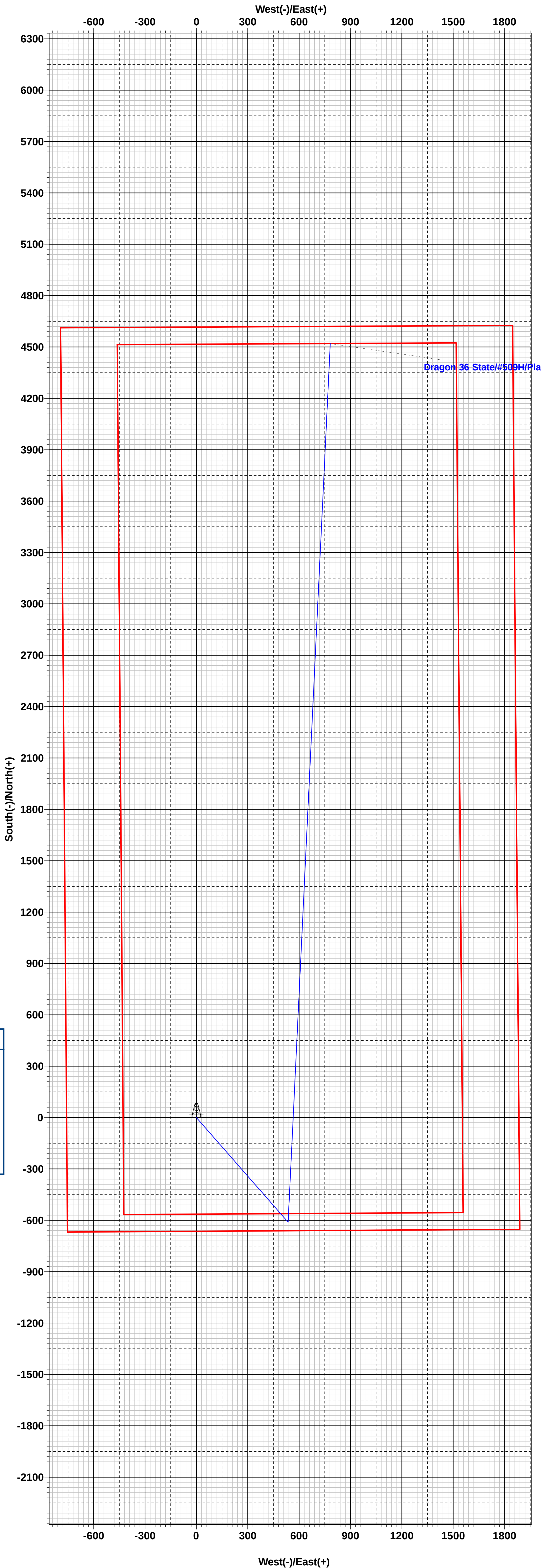
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1400.0	0.00	0.00	1400.0	0.0	0.0	0.00	0.00	0.0	
3	1788.8	7.78	138.74	1787.6	-19.8	17.4	2.00	138.74	-16.6	
4	7406.2	7.78	138.74	7353.4	-591.2	518.6	0.00	0.00	-494.1	
5	7795.0	0.00	0.00	7741.0	-611.0	536.0	2.00	180.00	-510.7	
6	10701.0	0.00	0.00	10647.0	-611.0	536.0	0.00	0.00	-510.7	
7	11446.2	89.42	2.74	11124.4	-138.9	558.6	12.00	2.74	-41.7	
8	16110.7	89.42	2.74	11172.0	4520.0	782.0	0.00	0.00	4587.1	PBHL(Dragon 36 State #509H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
PBHL(Dragon 36 State #509H)	11172.0	4520.0	782.0	430529.00	790031.00
Brushy Top(Dragon 36 State #509H)	7741.0	-611.0	536.0	425398.00	789785.00
FTP(Dragon 36 State #509H)	11220.0	-561.0	536.0	425448.00	789785.00
TGT#1(Dragon 36 State #509H)	11192.0	2916.7	509.8	428925.70	789758.82



Dragon 36 State/#509H/Plan #0.2

Vertical Section at 9.82°

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

CONDITIONS

Action 42383

CONDITIONS

Operator: EOG RESOURCES INC P.O. Box 2267 Midland, TX 79702	OGRID: 7377
	Action Number: 42383
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	8/26/2021