

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No. **NMNM126493**

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator **EOG RESOURCES INCORPORATED**

3a. Address **1111 BAGBY SKY LOBBY 2, HOUSTON, TX 770**    3b. Phone No. (include area code)  
**(713) 651-7000**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SEC 14/T23S/R33E/NMP**

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No. **DRIVER 14 FED COM/605H**

9. API Well No. **30-025-52944**

10. Field and Pool or Exploratory Area  
**BELL LAKE; WOLFCAMP, NORTH**

11. Country or Parish, State  
**LEA/NM**

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

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

DRIVER 14 FED COM 709H (FKA 605H) API #: 30-025-52944

Change name from DRIVER 14 FED COM 605H to DRIVER 14 FED COM 709H.

Change target formation to Wolfcamp Clastics Y.

Update casing and cement program to current design.

Update HSU to 1280 acres.

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
**STAR HARRELL / Ph: (432) 848-9161**

Title **Regulatory Specialist**

Signature (Electronic Submission) \_\_\_\_\_ Date **05/22/2024**

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by  
**KEITH P IMMATTY / Ph: (575) 988-4722 / Approved**

Title **ENGINEER** Date **06/03/2024**

Office **CARLSBAD**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Additional Remarks

Update the Pool as reflected in the C-102.

### Location of Well

0. SHL: TR P / 1115 FSL / 1236 FEL / TWSP: 23S / RANGE: 33E / SECTION: 14 / LAT: 32.3004759 / LONG: -103.5386129 ( TVD: 0 feet, MD: 0 feet )

PPP: TR P / 100 FSL / 330 FEL / TWSP: 23S / RANGE: 33E / SECTION: 14 / LAT: 32.2975382 / LONG: -103.5356803 ( TVD: 11985 feet, MD: 12189 feet )

BHL: TR A / 100 FNL / 330 FEL / TWSP: 23S / RANGE: 33E / SECTION: 11 / LAT: 32.3261616 / LONG: -103.5356937 ( TVD: 12250 feet, MD: 22654 feet )

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) 476-3460 Fax: (505) 476-3462

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-52944	Pool Code 5170	Pool Name Bell Lake; Wolfcamp, North
Property Code 331169	Property Name DRIVER 14 FED COM	Well Number 709H
OGRID No. 7377	Operator Name EOG RESOURCES, INC.	Elevation 3653'

Surface Location

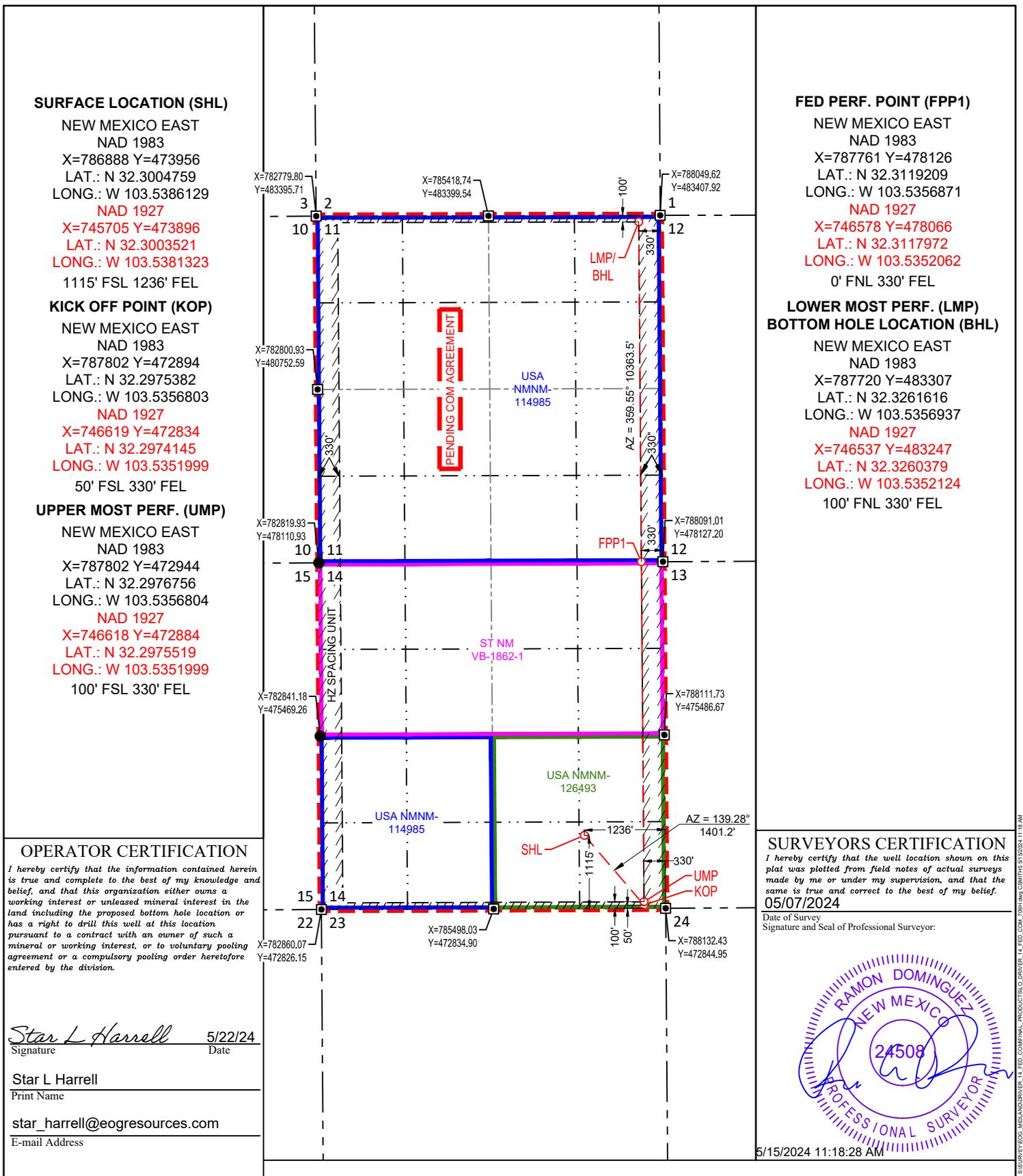
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	14	23-S	33-E	-	1115'	SOUTH	1236'	EAST	LEA

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
A	11	23-S	33-E	-	100'	NORTH	330'	EAST	LEA

Dedicated Acres 1280.00	Joint or Infill	Consolidated Code	Order No. <b>PENDING COM AGREEMENT</b>
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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.





## **Midland**

**Lea County, NM (NAD 83 NME)**

**Driver 14 Fed Com**

**#709H**

**OH**

**Plan: Plan #0.2**

## **Standard Planning Report**

**20 May, 2024**



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

<b>Project</b>	Lea County, NM (NAD 83 NME)		
<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		

<b>Site</b>	Driver 14 Fed Com				
<b>Site Position:</b>		<b>Northing:</b>	477,409.00 usft	<b>Latitude:</b>	32° 18' 36.085 N
<b>From:</b>	Map	<b>Easting:</b>	784,122.00 usft	<b>Longitude:</b>	103° 32' 50.936 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "		

<b>Well</b>	#709H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	473,956.00 usft	<b>Latitude:</b>	32° 18' 1.716 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	786,888.00 usft	<b>Longitude:</b>	103° 32' 19.006 W
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,653.0 usft
<b>Grid Convergence:</b>	0.42 °					

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	2/6/2023	6.34	59.92	47,369.17616000

<b>Design</b>	Plan #0.2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	5.08

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/16/2024		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	22,560.8 Plan #0.2 (OH)	EOG MWD+IFR1 MWD + IFR1	



Planning Report

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<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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	
1,850.0	0.00	0.00	1,850.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,636.0	15.72	139.28	2,626.2	-81.2	69.9	2.00	2.00	0.00	139.28	
7,016.5	15.72	139.28	6,842.8	-980.8	844.1	0.00	0.00	0.00	0.00	
7,802.5	0.00	0.00	7,619.0	-1,062.0	914.0	2.00	-2.00	0.00	180.00	
11,875.0	0.00	0.00	11,691.5	-1,062.0	914.0	0.00	0.00	0.00	0.00	KOP(Driver 14 Fed C
12,095.4	26.46	0.00	11,904.2	-1,012.0	914.0	12.00	12.00	0.00	0.00	FTP(Driver 14 Fed Cc
12,625.0	90.00	359.53	12,168.9	-584.5	911.6	12.00	12.00	-0.09	-0.52	
17,379.7	90.00	359.53	12,169.0	4,170.0	873.0	0.00	0.00	0.00	0.00	FEDPP(Driver 14 Fed
22,560.8	90.00	359.56	12,169.0	9,351.0	832.0	0.00	0.00	0.00	86.86	PBHL(Driver 14 Fed C



Planning Report

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<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,850.0	0.00	0.00	1,850.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	1.00	139.28	1,900.0	-0.3	0.3	-0.3	2.00	2.00	0.00
2,000.0	3.00	139.28	1,999.9	-3.0	2.6	-2.7	2.00	2.00	0.00
2,100.0	5.00	139.28	2,099.7	-8.3	7.1	-7.6	2.00	2.00	0.00
2,200.0	7.00	139.28	2,199.1	-16.2	13.9	-14.9	2.00	2.00	0.00
2,300.0	9.00	139.28	2,298.2	-26.7	23.0	-24.6	2.00	2.00	0.00
2,400.0	11.00	139.28	2,396.6	-39.9	34.3	-36.7	2.00	2.00	0.00
2,500.0	13.00	139.28	2,494.4	-55.7	47.9	-51.2	2.00	2.00	0.00
2,600.0	15.00	139.28	2,591.5	-74.0	63.7	-68.1	2.00	2.00	0.00
2,636.0	15.72	139.28	2,626.2	-81.2	69.9	-74.7	2.00	2.00	0.00
2,700.0	15.72	139.28	2,687.8	-94.4	81.2	-86.8	0.00	0.00	0.00
2,800.0	15.72	139.28	2,784.0	-114.9	98.9	-105.7	0.00	0.00	0.00
2,900.0	15.72	139.28	2,880.3	-135.4	116.6	-124.6	0.00	0.00	0.00
3,000.0	15.72	139.28	2,976.6	-156.0	134.2	-143.5	0.00	0.00	0.00
3,100.0	15.72	139.28	3,072.8	-176.5	151.9	-162.3	0.00	0.00	0.00
3,200.0	15.72	139.28	3,169.1	-197.0	169.6	-181.2	0.00	0.00	0.00
3,300.0	15.72	139.28	3,265.3	-217.6	187.3	-200.1	0.00	0.00	0.00
3,400.0	15.72	139.28	3,361.6	-238.1	204.9	-219.0	0.00	0.00	0.00
3,500.0	15.72	139.28	3,457.9	-258.6	222.6	-237.9	0.00	0.00	0.00
3,600.0	15.72	139.28	3,554.1	-279.2	240.3	-256.8	0.00	0.00	0.00
3,700.0	15.72	139.28	3,650.4	-299.7	257.9	-275.7	0.00	0.00	0.00
3,800.0	15.72	139.28	3,746.6	-320.3	275.6	-294.6	0.00	0.00	0.00
3,900.0	15.72	139.28	3,842.9	-340.8	293.3	-313.5	0.00	0.00	0.00
4,000.0	15.72	139.28	3,939.2	-361.3	311.0	-332.3	0.00	0.00	0.00
4,100.0	15.72	139.28	4,035.4	-381.9	328.6	-351.2	0.00	0.00	0.00
4,200.0	15.72	139.28	4,131.7	-402.4	346.3	-370.1	0.00	0.00	0.00
4,300.0	15.72	139.28	4,227.9	-422.9	364.0	-389.0	0.00	0.00	0.00
4,400.0	15.72	139.28	4,324.2	-443.5	381.7	-407.9	0.00	0.00	0.00
4,500.0	15.72	139.28	4,420.5	-464.0	399.3	-426.8	0.00	0.00	0.00
4,600.0	15.72	139.28	4,516.7	-484.5	417.0	-445.7	0.00	0.00	0.00
4,700.0	15.72	139.28	4,613.0	-505.1	434.7	-464.6	0.00	0.00	0.00
4,800.0	15.72	139.28	4,709.2	-525.6	452.4	-483.5	0.00	0.00	0.00
4,900.0	15.72	139.28	4,805.5	-546.1	470.0	-502.3	0.00	0.00	0.00
5,000.0	15.72	139.28	4,901.8	-566.7	487.7	-521.2	0.00	0.00	0.00
5,100.0	15.72	139.28	4,998.0	-587.2	505.4	-540.1	0.00	0.00	0.00



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)	
5,200.0	15.72	139.28	5,094.3	-607.8	523.1	-559.0	0.00	0.00	0.00	
5,300.0	15.72	139.28	5,190.5	-628.3	540.7	-577.9	0.00	0.00	0.00	
5,400.0	15.72	139.28	5,286.8	-648.8	558.4	-596.8	0.00	0.00	0.00	
5,500.0	15.72	139.28	5,383.1	-669.4	576.1	-615.7	0.00	0.00	0.00	
5,600.0	15.72	139.28	5,479.3	-689.9	593.8	-634.6	0.00	0.00	0.00	
5,700.0	15.72	139.28	5,575.6	-710.4	611.4	-653.4	0.00	0.00	0.00	
5,800.0	15.72	139.28	5,671.8	-731.0	629.1	-672.3	0.00	0.00	0.00	
5,900.0	15.72	139.28	5,768.1	-751.5	646.8	-691.2	0.00	0.00	0.00	
6,000.0	15.72	139.28	5,864.3	-772.0	664.4	-710.1	0.00	0.00	0.00	
6,100.0	15.72	139.28	5,960.6	-792.6	682.1	-729.0	0.00	0.00	0.00	
6,200.0	15.72	139.28	6,056.9	-813.1	699.8	-747.9	0.00	0.00	0.00	
6,300.0	15.72	139.28	6,153.1	-833.6	717.5	-766.8	0.00	0.00	0.00	
6,400.0	15.72	139.28	6,249.4	-854.2	735.1	-785.7	0.00	0.00	0.00	
6,500.0	15.72	139.28	6,345.6	-874.7	752.8	-804.6	0.00	0.00	0.00	
6,600.0	15.72	139.28	6,441.9	-895.3	770.5	-823.4	0.00	0.00	0.00	
6,700.0	15.72	139.28	6,538.2	-915.8	788.2	-842.3	0.00	0.00	0.00	
6,800.0	15.72	139.28	6,634.4	-936.3	805.8	-861.2	0.00	0.00	0.00	
6,900.0	15.72	139.28	6,730.7	-956.9	823.5	-880.1	0.00	0.00	0.00	
7,000.0	15.72	139.28	6,826.9	-977.4	841.2	-899.0	0.00	0.00	0.00	
7,016.5	15.72	139.28	6,842.8	-980.8	844.1	-902.1	0.00	0.00	0.00	
7,100.0	14.05	139.28	6,923.5	-997.0	858.1	-917.1	2.00	-2.00	0.00	
7,200.0	12.05	139.28	7,020.9	-1,014.2	872.8	-932.8	2.00	-2.00	0.00	
7,300.0	10.05	139.28	7,119.1	-1,028.7	885.3	-946.2	2.00	-2.00	0.00	
7,400.0	8.05	139.28	7,217.8	-1,040.6	895.6	-957.1	2.00	-2.00	0.00	
7,500.0	6.05	139.28	7,317.1	-1,049.9	903.6	-965.7	2.00	-2.00	0.00	
7,600.0	4.05	139.28	7,416.7	-1,056.6	909.3	-971.8	2.00	-2.00	0.00	
7,700.0	2.05	139.28	7,516.5	-1,060.6	912.8	-975.5	2.00	-2.00	0.00	
7,802.5	0.00	0.00	7,619.0	-1,062.0	914.0	-976.8	2.00	-2.00	0.00	
7,900.0	0.00	0.00	7,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,100.0	0.00	0.00	9,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)	
10,500.0	0.00	0.00	10,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,100.0	0.00	0.00	10,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,875.0	0.00	0.00	11,691.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,900.0	3.00	0.00	11,716.5	-1,061.3	914.0	-976.2	12.00	12.00	0.00	
11,925.0	6.00	0.00	11,741.4	-1,059.4	914.0	-974.2	12.00	12.00	0.00	
11,950.0	9.00	0.00	11,766.2	-1,056.1	914.0	-971.0	12.00	12.00	0.00	
11,975.0	12.00	0.00	11,790.8	-1,051.6	914.0	-966.4	12.00	12.00	0.00	
12,000.0	15.00	0.00	11,815.1	-1,045.7	914.0	-960.6	12.00	12.00	0.00	
12,025.0	18.00	0.00	11,839.0	-1,038.6	914.0	-953.5	12.00	12.00	0.00	
12,050.0	21.00	0.00	11,862.6	-1,030.3	914.0	-945.2	12.00	12.00	0.00	
12,075.0	24.00	0.00	11,885.7	-1,020.7	914.0	-935.7	12.00	12.00	0.00	
12,095.4	26.46	0.00	11,904.2	-1,012.0	914.0	-927.0	12.00	12.00	0.00	
12,100.0	27.00	359.99	11,908.3	-1,010.0	914.0	-925.0	12.00	12.00	-0.24	
12,125.0	30.00	359.94	11,930.2	-998.0	914.0	-913.1	12.00	12.00	-0.21	
12,150.0	33.00	359.89	11,951.5	-985.0	914.0	-900.1	12.00	12.00	-0.18	
12,175.0	36.00	359.85	11,972.1	-970.8	913.9	-886.0	12.00	12.00	-0.15	
12,200.0	39.00	359.82	11,992.0	-955.6	913.9	-870.8	12.00	12.00	-0.13	
12,225.0	42.00	359.79	12,011.0	-939.3	913.8	-854.7	12.00	12.00	-0.12	
12,250.0	45.00	359.77	12,029.1	-922.1	913.8	-837.5	12.00	12.00	-0.10	
12,275.0	48.00	359.74	12,046.3	-904.0	913.7	-819.5	12.00	12.00	-0.09	
12,300.0	51.00	359.72	12,062.6	-885.0	913.6	-800.5	12.00	12.00	-0.08	
12,325.0	54.00	359.70	12,077.8	-865.2	913.5	-780.8	12.00	12.00	-0.08	
12,350.0	57.00	359.69	12,091.9	-844.6	913.4	-760.3	12.00	12.00	-0.07	
12,375.0	60.00	359.67	12,105.0	-823.3	913.3	-739.1	12.00	12.00	-0.07	
12,400.0	63.00	359.65	12,116.9	-801.3	913.1	-717.2	12.00	12.00	-0.06	
12,425.0	66.00	359.64	12,127.7	-778.7	913.0	-694.7	12.00	12.00	-0.06	
12,450.0	69.00	359.62	12,137.2	-755.6	912.9	-671.8	12.00	12.00	-0.06	
12,475.0	72.00	359.61	12,145.6	-732.1	912.7	-648.3	12.00	12.00	-0.05	
12,500.0	75.00	359.60	12,152.7	-708.1	912.5	-624.4	12.00	12.00	-0.05	
12,525.0	78.00	359.58	12,158.5	-683.8	912.4	-600.2	12.00	12.00	-0.05	
12,550.0	81.00	359.57	12,163.1	-659.2	912.2	-575.8	12.00	12.00	-0.05	
12,575.0	84.00	359.56	12,166.3	-634.4	912.0	-551.1	12.00	12.00	-0.05	
12,600.0	87.00	359.55	12,168.3	-609.5	911.8	-526.3	12.00	12.00	-0.05	
12,625.0	90.00	359.53	12,168.9	-584.5	911.6	-501.5	12.00	12.00	-0.05	
12,700.0	90.00	359.53	12,168.9	-509.5	911.0	-426.8	0.00	0.00	0.00	
12,800.0	90.00	359.53	12,168.9	-409.5	910.2	-327.3	0.00	0.00	0.00	
12,900.0	90.00	359.53	12,168.9	-309.5	909.4	-227.7	0.00	0.00	0.00	
13,000.0	90.00	359.53	12,169.0	-209.5	908.6	-128.2	0.00	0.00	0.00	
13,100.0	90.00	359.53	12,169.0	-109.5	907.7	-28.7	0.00	0.00	0.00	
13,200.0	90.00	359.53	12,169.0	-9.5	906.9	70.9	0.00	0.00	0.00	
13,300.0	90.00	359.53	12,169.0	90.5	906.1	170.4	0.00	0.00	0.00	
13,400.0	90.00	359.53	12,169.0	190.5	905.3	269.9	0.00	0.00	0.00	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
13,500.0	90.00	359.53	12,169.0	290.4	904.5	369.5	0.00	0.00	0.00
13,600.0	90.00	359.53	12,169.0	390.4	903.7	469.0	0.00	0.00	0.00
13,700.0	90.00	359.53	12,169.0	490.4	902.9	568.5	0.00	0.00	0.00
13,800.0	90.00	359.53	12,169.0	590.4	902.1	668.1	0.00	0.00	0.00
13,900.0	90.00	359.53	12,169.0	690.4	901.2	767.6	0.00	0.00	0.00
14,000.0	90.00	359.53	12,169.0	790.4	900.4	867.1	0.00	0.00	0.00
14,100.0	90.00	359.53	12,169.0	890.4	899.6	966.7	0.00	0.00	0.00
14,200.0	90.00	359.53	12,169.0	990.4	898.8	1,066.2	0.00	0.00	0.00
14,300.0	90.00	359.53	12,169.0	1,090.4	898.0	1,165.7	0.00	0.00	0.00
14,400.0	90.00	359.53	12,169.0	1,190.4	897.2	1,265.2	0.00	0.00	0.00
14,500.0	90.00	359.53	12,169.0	1,290.4	896.4	1,364.8	0.00	0.00	0.00
14,600.0	90.00	359.53	12,169.0	1,390.4	895.6	1,464.3	0.00	0.00	0.00
14,700.0	90.00	359.53	12,169.0	1,490.4	894.8	1,563.8	0.00	0.00	0.00
14,800.0	90.00	359.53	12,169.0	1,590.4	893.9	1,663.4	0.00	0.00	0.00
14,900.0	90.00	359.53	12,169.0	1,690.4	893.1	1,762.9	0.00	0.00	0.00
15,000.0	90.00	359.53	12,169.0	1,790.4	892.3	1,862.4	0.00	0.00	0.00
15,100.0	90.00	359.53	12,169.0	1,890.4	891.5	1,962.0	0.00	0.00	0.00
15,200.0	90.00	359.53	12,169.0	1,990.4	890.7	2,061.5	0.00	0.00	0.00
15,300.0	90.00	359.53	12,169.0	2,090.4	889.9	2,161.0	0.00	0.00	0.00
15,400.0	90.00	359.53	12,169.0	2,190.4	889.1	2,260.6	0.00	0.00	0.00
15,500.0	90.00	359.53	12,169.0	2,290.4	888.3	2,360.1	0.00	0.00	0.00
15,600.0	90.00	359.53	12,169.0	2,390.4	887.4	2,459.6	0.00	0.00	0.00
15,700.0	90.00	359.53	12,169.0	2,490.4	886.6	2,559.2	0.00	0.00	0.00
15,800.0	90.00	359.53	12,169.0	2,590.4	885.8	2,658.7	0.00	0.00	0.00
15,900.0	90.00	359.53	12,169.0	2,690.4	885.0	2,758.2	0.00	0.00	0.00
16,000.0	90.00	359.53	12,169.0	2,790.4	884.2	2,857.7	0.00	0.00	0.00
16,100.0	90.00	359.53	12,169.0	2,890.4	883.4	2,957.3	0.00	0.00	0.00
16,200.0	90.00	359.53	12,169.0	2,990.4	882.6	3,056.8	0.00	0.00	0.00
16,300.0	90.00	359.53	12,169.0	3,090.4	881.8	3,156.3	0.00	0.00	0.00
16,400.0	90.00	359.53	12,169.0	3,190.4	881.0	3,255.9	0.00	0.00	0.00
16,500.0	90.00	359.53	12,169.0	3,290.3	880.1	3,355.4	0.00	0.00	0.00
16,600.0	90.00	359.53	12,169.0	3,390.3	879.3	3,454.9	0.00	0.00	0.00
16,700.0	90.00	359.53	12,169.0	3,490.3	878.5	3,554.5	0.00	0.00	0.00
16,800.0	90.00	359.53	12,169.0	3,590.3	877.7	3,654.0	0.00	0.00	0.00
16,900.0	90.00	359.53	12,169.0	3,690.3	876.9	3,753.5	0.00	0.00	0.00
17,000.0	90.00	359.53	12,169.0	3,790.3	876.1	3,853.1	0.00	0.00	0.00
17,100.0	90.00	359.53	12,169.0	3,890.3	875.3	3,952.6	0.00	0.00	0.00
17,200.0	90.00	359.53	12,169.0	3,990.3	874.5	4,052.1	0.00	0.00	0.00
17,300.0	90.00	359.53	12,169.0	4,090.3	873.6	4,151.7	0.00	0.00	0.00
17,379.7	90.00	359.53	12,169.0	4,170.0	873.0	4,231.0	0.00	0.00	0.00
17,400.0	90.00	359.53	12,169.0	4,190.3	872.8	4,251.2	0.00	0.00	0.00
17,500.0	90.00	359.54	12,169.0	4,290.3	872.0	4,350.7	0.00	0.00	0.00
17,600.0	90.00	359.54	12,169.0	4,390.3	871.2	4,450.2	0.00	0.00	0.00
17,700.0	90.00	359.54	12,169.0	4,490.3	870.4	4,549.8	0.00	0.00	0.00
17,800.0	90.00	359.54	12,169.0	4,590.3	869.6	4,649.3	0.00	0.00	0.00
17,900.0	90.00	359.54	12,169.0	4,690.3	868.8	4,748.8	0.00	0.00	0.00
18,000.0	90.00	359.54	12,169.0	4,790.3	868.0	4,848.4	0.00	0.00	0.00
18,100.0	90.00	359.54	12,169.0	4,890.3	867.2	4,947.9	0.00	0.00	0.00
18,200.0	90.00	359.54	12,169.0	4,990.3	866.4	5,047.4	0.00	0.00	0.00
18,300.0	90.00	359.54	12,169.0	5,090.3	865.6	5,147.0	0.00	0.00	0.00
18,400.0	90.00	359.54	12,169.0	5,190.3	864.8	5,246.5	0.00	0.00	0.00
18,500.0	90.00	359.54	12,169.0	5,290.3	864.0	5,346.0	0.00	0.00	0.00
18,600.0	90.00	359.54	12,169.0	5,390.3	863.2	5,445.6	0.00	0.00	0.00
18,700.0	90.00	359.54	12,169.0	5,490.3	862.4	5,545.1	0.00	0.00	0.00



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
18,800.0	90.00	359.54	12,169.0	5,590.3	861.5	5,644.6	0.00	0.00	0.00
18,900.0	90.00	359.54	12,169.0	5,690.3	860.7	5,744.2	0.00	0.00	0.00
19,000.0	90.00	359.54	12,169.0	5,790.3	859.9	5,843.7	0.00	0.00	0.00
19,100.0	90.00	359.54	12,169.0	5,890.3	859.2	5,943.2	0.00	0.00	0.00
19,200.0	90.00	359.54	12,169.0	5,990.3	858.4	6,042.8	0.00	0.00	0.00
19,300.0	90.00	359.54	12,169.0	6,090.3	857.6	6,142.3	0.00	0.00	0.00
19,400.0	90.00	359.54	12,169.0	6,190.3	856.8	6,241.8	0.00	0.00	0.00
19,500.0	90.00	359.54	12,169.0	6,290.3	856.0	6,341.4	0.00	0.00	0.00
19,600.0	90.00	359.54	12,169.0	6,390.2	855.2	6,440.9	0.00	0.00	0.00
19,700.0	90.00	359.55	12,169.0	6,490.2	854.4	6,540.4	0.00	0.00	0.00
19,800.0	90.00	359.55	12,169.0	6,590.2	853.6	6,640.0	0.00	0.00	0.00
19,900.0	90.00	359.55	12,169.0	6,690.2	852.8	6,739.5	0.00	0.00	0.00
20,000.0	90.00	359.55	12,169.0	6,790.2	852.0	6,839.0	0.00	0.00	0.00
20,100.0	90.00	359.55	12,169.0	6,890.2	851.2	6,938.6	0.00	0.00	0.00
20,200.0	90.00	359.55	12,169.0	6,990.2	850.4	7,038.1	0.00	0.00	0.00
20,300.0	90.00	359.55	12,169.0	7,090.2	849.6	7,137.6	0.00	0.00	0.00
20,400.0	90.00	359.55	12,169.0	7,190.2	848.8	7,237.2	0.00	0.00	0.00
20,500.0	90.00	359.55	12,169.0	7,290.2	848.1	7,336.7	0.00	0.00	0.00
20,600.0	90.00	359.55	12,169.0	7,390.2	847.3	7,436.2	0.00	0.00	0.00
20,700.0	90.00	359.55	12,169.0	7,490.2	846.5	7,535.8	0.00	0.00	0.00
20,800.0	90.00	359.55	12,169.0	7,590.2	845.7	7,635.3	0.00	0.00	0.00
20,900.0	90.00	359.55	12,169.0	7,690.2	844.9	7,734.8	0.00	0.00	0.00
21,000.0	90.00	359.55	12,169.0	7,790.2	844.1	7,834.4	0.00	0.00	0.00
21,100.0	90.00	359.55	12,169.0	7,890.2	843.3	7,933.9	0.00	0.00	0.00
21,200.0	90.00	359.55	12,169.0	7,990.2	842.6	8,033.4	0.00	0.00	0.00
21,300.0	90.00	359.55	12,169.0	8,090.2	841.8	8,133.0	0.00	0.00	0.00
21,400.0	90.00	359.55	12,169.0	8,190.2	841.0	8,232.5	0.00	0.00	0.00
21,500.0	90.00	359.55	12,169.0	8,290.2	840.2	8,332.0	0.00	0.00	0.00
21,600.0	90.00	359.55	12,169.0	8,390.2	839.4	8,431.6	0.00	0.00	0.00
21,700.0	90.00	359.55	12,169.0	8,490.2	838.7	8,531.1	0.00	0.00	0.00
21,800.0	90.00	359.55	12,169.0	8,590.2	837.9	8,630.6	0.00	0.00	0.00
21,900.0	90.00	359.56	12,169.0	8,690.2	837.1	8,730.2	0.00	0.00	0.00
22,000.0	90.00	359.56	12,169.0	8,790.2	836.3	8,829.7	0.00	0.00	0.00
22,100.0	90.00	359.56	12,169.0	8,890.2	835.6	8,929.2	0.00	0.00	0.00
22,200.0	90.00	359.56	12,169.0	8,990.2	834.8	9,028.8	0.00	0.00	0.00
22,300.0	90.00	359.56	12,169.0	9,090.2	834.0	9,128.3	0.00	0.00	0.00
22,400.0	90.00	359.56	12,169.0	9,190.2	833.2	9,227.8	0.00	0.00	0.00
22,500.0	90.00	359.56	12,169.0	9,290.2	832.5	9,327.4	0.00	0.00	0.00
22,560.8	90.00	359.56	12,169.0	9,351.0	832.0	9,387.9	0.00	0.00	0.00



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
- Shape										
KOP(Driver 14 Fed Com - plan hits target center - Point	0.00	0.00	11,691.5	-1,062.0	914.0	472,894.00	787,802.00	32° 17' 51.141 N	103° 32' 8.450 W	
FTP(Driver 14 Fed Com - plan hits target center - Point	0.00	0.00	11,904.2	-1,012.0	914.0	472,944.00	787,802.00	32° 17' 51.635 N	103° 32' 8.445 W	
PBHL(Driver 14 Fed Cor - plan hits target center - Point	0.00	0.01	12,169.0	9,351.0	832.0	483,307.00	787,720.00	32° 19' 34.183 N	103° 32' 8.502 W	
FEDPP(Driver 14 Fed C - plan hits target center - Point	0.00	0.01	12,169.0	4,170.0	873.0	478,126.00	787,761.00	32° 18' 42.914 N	103° 32' 8.474 W	

Lea County, NM (NAD 83 NME)

Driver 14 Fed Com #709H

Plan #0.2



To convert a Magnetic Direction to a Grid Direction, Add 5.92°  
 To convert a Magnetic Direction to a True Direction, Add 6.34° East  
 To convert a True Direction to a Grid Direction, Subtract 0.42°

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

WELL DETAILS: #709H

kb = 26' @ 3679.0usft 3653.0  
 Northing 473956.0 Easting 786888.0 Latitude 32° 18' 1.716 N Longitude 103° 32' 19.006 W

SECTION DETAILS

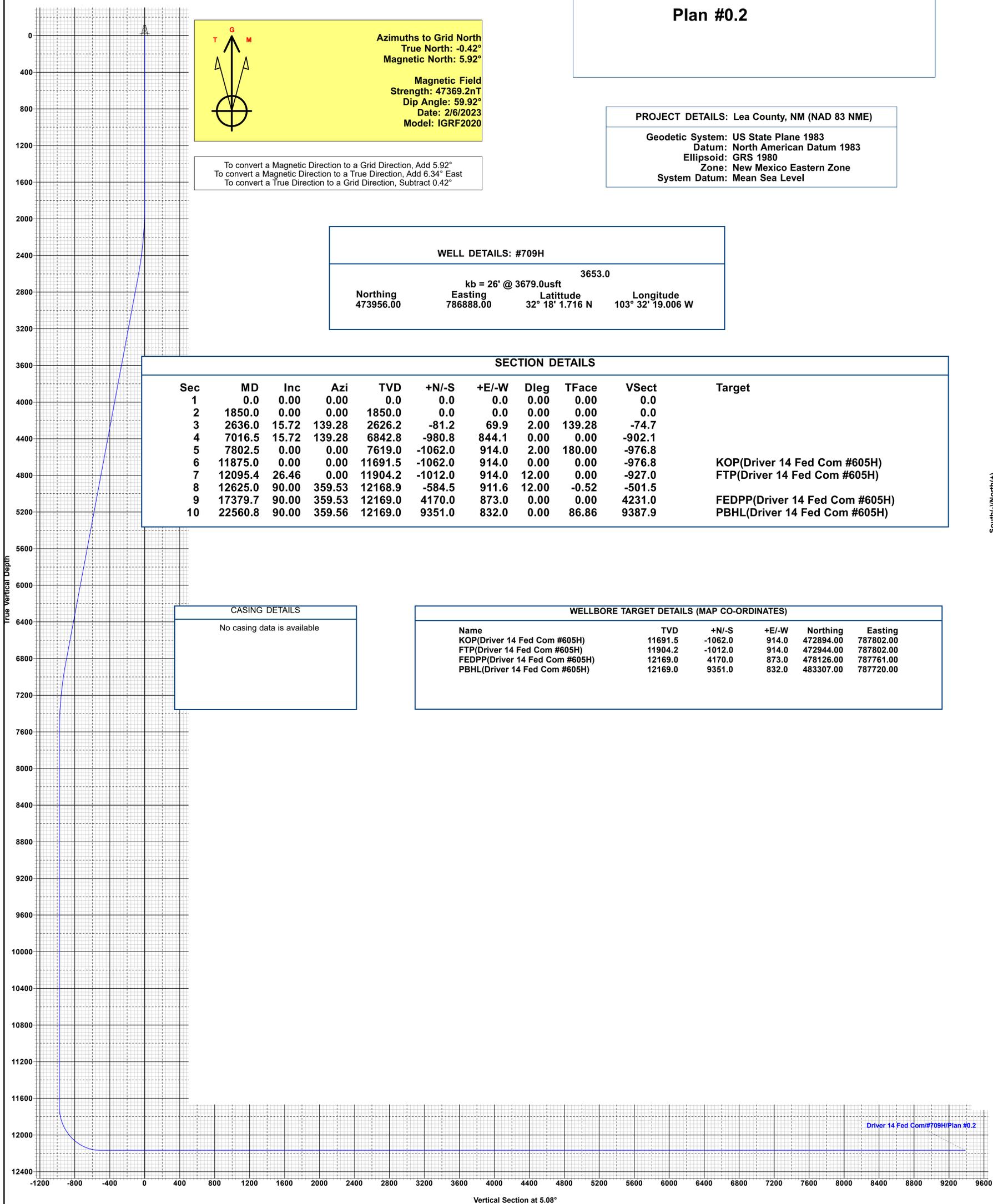
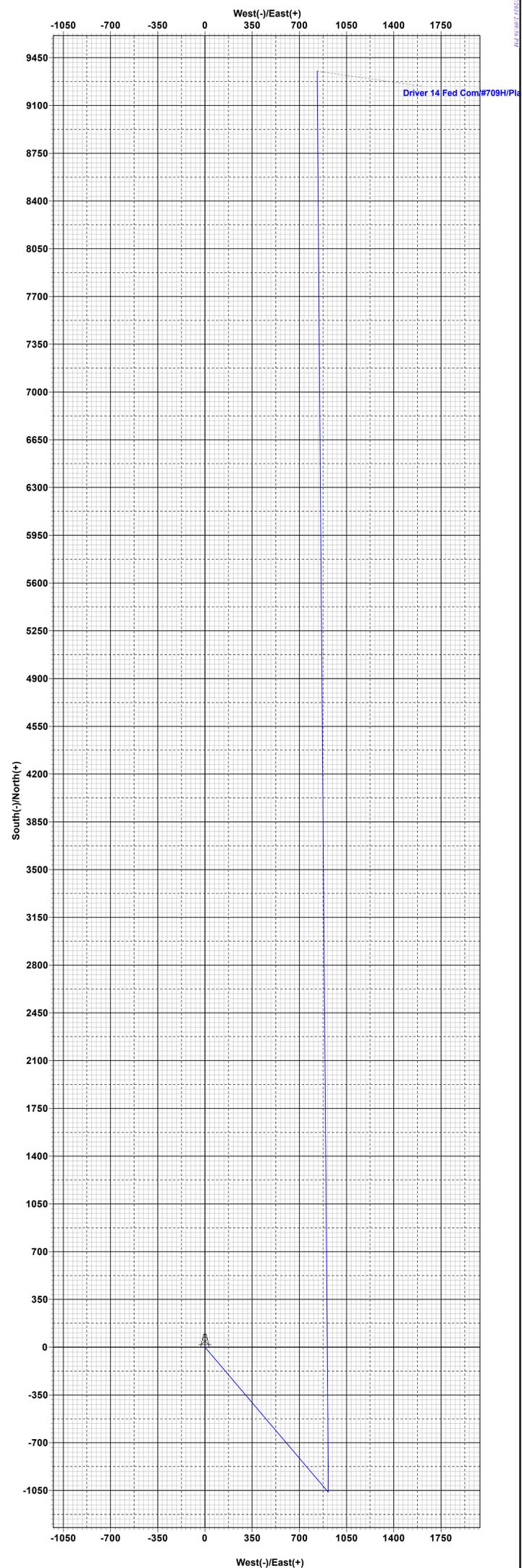
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1850.0	0.00	0.00	1850.0	0.0	0.0	0.00	0.00	0.0	
3	2636.0	15.72	139.28	2626.2	-81.2	69.9	2.00	139.28	-74.7	
4	7016.5	15.72	139.28	6842.8	-980.8	844.1	0.00	0.00	-902.1	
5	7802.5	0.00	0.00	7619.0	-1062.0	914.0	2.00	180.00	-976.8	
6	11875.0	0.00	0.00	11691.5	-1062.0	914.0	0.00	0.00	-976.8	KOP(Driver 14 Fed Com #605H)
7	12095.4	26.46	0.00	11904.2	-1012.0	914.0	12.00	0.00	-927.0	FTP(Driver 14 Fed Com #605H)
8	12625.0	90.00	359.53	12168.9	-584.5	911.6	12.00	-0.52	-501.5	
9	17379.7	90.00	359.53	12169.0	4170.0	873.0	0.00	0.00	4231.0	FEDPP(Driver 14 Fed Com #605H)
10	22560.8	90.00	359.56	12169.0	9351.0	832.0	0.00	86.86	9387.9	PBHL(Driver 14 Fed Com #605H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Driver 14 Fed Com #605H)	11691.5	-1062.0	914.0	472894.00	787802.00
FTP(Driver 14 Fed Com #605H)	11904.2	-1012.0	914.0	472944.00	787802.00
FEDPP(Driver 14 Fed Com #605H)	12169.0	4170.0	873.0	478126.00	787761.00
PBHL(Driver 14 Fed Com #605H)	12169.0	9351.0	832.0	483307.00	787720.00





### DRIVER 14 FED COM 709H

#### Revised Permit Information 05/01/2024:

Well Name: DRIVER 14 FED COM 709H

Location: SHL: 1115' FSL & 1236' FEL, Section 14, T-23-S, R-33-E, LEA Co., N.M.

BHL: 100' FNL & 330' FEL, Section 11, T-23-S, R-33-E, LEA Co., N.M.

#### CASING PROGRAM:

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
12-1/4"	0	1,500	0	1,500	9-5/8"	36#	J-55	LTC
8-3/4"	0	11,509	0	11,310	7-5/8"	29.7#	ICYP-110	MO FXL
6-3/4"	0	11,009	0	10,810	5-1/2"	20#	P110-EC	DWC/C IS MS
6-3/4"	11,009	11,509	10,810	11,310	5-1/2"	20#	P110-EC	VAM Sprint SF
6-3/4"	11,509	22,561	11,310	12,169	5-1/2"	20#	P110-EC	DWC/C IS MS

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" 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 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

#### CEMENTING PROGRAM:

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,500' 9-5/8"	400	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1,300')
11,310' 7-5/8"	460	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,380')
	1260	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
22,561' 5-1/2"	1470	13.2	1.41	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,808')

**DRIVER 14 FED COM 709H**

<b>Additive</b>	<b>Purpose</b>
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

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,577') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 260 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

**MUD PROGRAM:**

<b>Measured Depth</b>	<b>Type</b>	<b>Weight (ppg)</b>	<b>Viscosity</b>	<b>Water Loss</b>
0 – 1,500'	Fresh - Gel	8.6-8.8	28-34	N/c
1,500' – 11,310'	Brine	9.0-10.5	28-34	N/c
11,310' – 11,875'	Oil Base	8.7-9.4	58-68	N/c - 6
11,875' – 22,561' Lateral	Oil Base	10.0-14.0	58-68	4 - 6



## DRIVER 14 FED COM 709H

### TUBING REQUIREMENTS

EOG respectfully requests an exception to the following NMOCD rule:

- 19.15.16.10 Casing AND TUBING REQUIREMENTS:  
J (3): “The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone.”

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.



DRIVER 14 FED COM 709H

1115' FSL  
1236' FEL  
Section 14  
T-23-S, R-33-E

Revised Wellbore

KB: 3678'  
GL: 3653'

API: 30-025-52944

Bit Size: 12-1/4"  
9-5/8", 36#, J-55, LTC,  
@ 0' - 1,500'

Bit Size: 8-3/4"  
7-5/8", 29.7#, ICYP-110, MO FXL,  
@ 0' - 11,310'

Bit Size: 6-3/4"  
5-1/2", 20.#, P110-EC, DWC/C IS MS  
@ 0' - 10,810'  
5-1/2", 20.#, P110-EC, VAM Sprint SF  
@ 10,810' - 11,310'  
5-1/2", 20.#, P110-EC, DWC/C IS MS  
@ 11,310' - 22,561'

KOP: 11,875' MD, 11,692' TVD  
EOC: 12,625' MD, 12,169' TVD

TOC: 11,009' MD, 10,808' TVD

Lateral: 22,561' MD, 12,169' TVD  
Upper Most Perf:  
100' FSL & 330' FEL Sec. 14  
Lower Most Perf:  
100' FNL & 330' FEL Sec. 11  
BH Location: 100' FNL & 330' FEL  
Sec. 11  
T-23-S R-33-E



## DRIVER 14 FED COM 709H

**Design B****CASING PROGRAM:**

Hole Size	Interval MD		Interval TVD		Csg OD	Weight	Grade	Conn
	From (ft)	To (ft)	From (ft)	To (ft)				
13"	0	1,500	0	1,500	10-3/4"	40.5#	J-55	STC
9-7/8"	0	11,509	0	11,308	8-3/4"	38.5#	P110-EC	SLIJ II NA
7-7/8"	0	22,561	0	12,169	6"	24.5#	P110-EC	VAM Sprint-SF

Variance is requested to waive the centralizer requirements for the 8-3/4" casing in the 9-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 9-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" casing in the 7-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 7-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 6" casing by 8-3/4" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

**CEMENTING PROGRAM:**

Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,500' 10-3/4"	370	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl <sub>2</sub> + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	70	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 1,300')
11,308' 8-3/4"	530	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3% Microbond (TOC @ 7,380')
	1430	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (TOC @ surface)
22,561' 6"	1640	13.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 10,808')



### **DRIVER 14 FED COM 709H**

EOG requests variance from minimum standards to pump a two stage cement job on the 8-3/4" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (7,577') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 433 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

EOG will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

EOG will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

### **VARIANCE REQUESTS:**

EOG requests the additional variance(s) in the attached document(s):

Variances requested include (supporting documents attached):

- BOP Break Testing for 5M Intermediate Intervals (EOG BLM Variance 3a\_b)
- Offline Cementing for Surface and Intermediate Intervals (EOG BLM Variance 3a\_b)
- Intermediate Bradenhead Cement (EOG BLM Variance 2a)



DRIVER 14 FED COM 709H

1115' FSL  
1236' FEL  
Section 14  
T-23-S, R-33-E

Proposed Wellbore

KB: 3678'  
GL: 3653'

API: 30-025-52944

Bit Size: 13"  
10-3/4", 40.5#, J-55, STC,  
@ 0' - 1,500'

Bit Size: 9-7/8"  
8-3/4" 38.5#, P110-EC, SLIJ II NA,  
@ 0' - 11,308'

Bit Size: 7-7/8"  
6", 24.5#, P110-EC, VAM Sprint-SF,  
@ 0' - 22,561'

TOC: 11,009' MD, 10,808' TVD

Lateral: 22,561' MD, 12,169' TVD  
Upper Most Perf:  
100' FSL & 330' FEL Sec. 14  
Lower Most Perf:  
100' FNL & 330' FEL Sec. 11  
BH Location: 100' FNL & 330' FEL  
Sec. 11  
T-23-S R-33-E

KOP: 11,875' MD, 11,692' TVD  
EOC: 12,625' MD, 12,169' TVD



**DRIVER 14 FED COM 709H**

**GEOLOGIC NAME OF SURFACE FORMATION:**

Permian

**ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:**

Rustler	1,378'
Tamarisk Anhydrite	1,475'
Top of Salt	1,883'
Base of Salt	4,262'
Lamar	5,318'
Bell Canyon	5,362'
Cherry Canyon	6,243'
Brushy Canyon	7,577'
Bone Spring Lime	9,028'
Leonard (Avalon) Shale	9,184'
1st Bone Spring Sand	10,132'
2nd Bone Spring Shale	10,382'
2nd Bone Spring Sand	10,715'
3rd Bone Spring Carb	11,208'
3rd Bone Spring Sand	11,738'
Wolfcamp	12,021'
TD	12,169'

**ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:**

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	5,362'	Oil
Cherry Canyon	6,243'	Oil
Brushy Canyon	7,577'	Oil
Leonard (Avalon) Shale	9,184'	Oil
1st Bone Spring Sand	10,132'	Oil
2nd Bone Spring Shale	10,382'	Oil
2nd Bone Spring Sand	10,715'	Oil

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG RESOURCES INCORPORATED
WELL NAME & NO.:	DRIVER 14 FED COM 709H
SURFACE HOLE FOOTAGE:	1115'/S & 1236'/E
BOTTOM HOLE FOOTAGE:	100'/N & 330'/E
LOCATION:	Section 14, T.23 S., R.33 E.
COUNTY:	Lea County, New Mexico

**ALL PREVIOUS COAs STILL APPLY**

COA

H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Wellhead Variance	<input type="radio"/> Diverter		
Other	<input type="checkbox"/> 4 String	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Open Annulus
Cementing	<input type="checkbox"/> Contingency Cement Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input checked="" type="checkbox"/> Primary Cement Squeeze
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements	<input type="checkbox"/> Batch Sundry		
Special Requirements Variance	<input checked="" type="checkbox"/> Break Testing	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Casing Clearance

### A. CASING

#### Primary Casing Design:

1. The **9-5/8** inch surface casing shall be set at approximately **1,500** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

- completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **7-5/8** inch intermediate casing shall be set at approximately **11,310** feet TVD. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon**
- b. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

**Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.**

**If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.**

**Bradenhead squeeze in the production interval is only as an edge case remediation measure and is NOT approved in this COA. If production cement job experiences losses and a bradenhead squeeze is needed for tie-back, BLM Engineering should be notified prior to job with volumes and planned wellbore schematic. CBL will be needed when this occurs.**

**If cement does not reach surface, the next casing string must come to surface.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

3. The **5-1/2** inch production casing shall be set at approximately **22,654** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

**Option 1 (Single Stage):**

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**Alternate Casing Design:**

1. The **10-3/4** inch surface casing shall be set at approximately **1,500** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **8-3/4** inch intermediate casing shall be set at approximately **11,310** feet. **Keep casing full to stay within collapse SF requirement.** The minimum required fill of cement behind the **8-3/4** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- c. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon**
- d. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

**Operator has proposed to pump down 10-3/4" X 8-3/4" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 8-3/4" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.**

**If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.**

**Bradenhead squeeze in the production interval is only as an edge case remediation measure and is NOT approved in this COA. If production cement job experiences losses and a bradenhead squeeze is needed for tie-back, BLM Engineering should be notified prior to job with volumes and planned wellbore schematic. CBL will be needed when this occurs.**

**If cement does not reach surface, the next casing string must come to surface.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

3. The **6 inch X 5.5 inch** tapered production casing shall be set at approximately **22,654 feet**. **Operator has requested the optionality to run only the 6 inch or only the 5.5 inch casing from surface to TD. These alternatives have been reviewed and is OK. Keep casing full to stay within collapse SF requirement.** The minimum required fill of cement behind the **6 inch x 5.5 inch** tapered production casing is:

**Option 1 (Single Stage):**

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system) BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (**575-706-2779**) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR part 3170 Subpart 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

### **Offline Cementing**

OK for surface and intermediate cementing. Notify the BLM prior to the commencement of any offline cementing procedure.

### **Casing Clearance:**

- 500' tie back OK in production interval.
- Operator aware on lack of 1" optionality in surface interval and will do remediation if needed.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

## **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

**[BLM\\_NM\\_CFO\\_DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV)**

(575) 361-2822

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the

following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's

requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**KPI 6/1/2024**

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2021

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No. **NMNM126493**

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well  
 Oil Well     Gas Well     Other

2. Name of Operator **EOG RESOURCES INCORPORATED**

3a. Address **1111 BAGBY SKY LOBBY 2, HOUSTON, TX 770**    3b. Phone No. (include area code) **(713) 651-7000**

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)  
**SEC 14/T23S/R33E/NMP**

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No. **DRIVER 14 FED COM/605H**

9. API Well No. **30-025-52944**

10. Field and Pool or Exploratory Area  
**BELL LAKE; WOLFCAMP, NORTH**

11. Country or Parish, State  
**LEA/NM**

**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION				
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

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

DRIVER 14 FED COM 709H (FKA 605H) API #: 30-025-52944

Change name from DRIVER 14 FED COM 605H to DRIVER 14 FED COM 709H.

Change target formation to Wolfcamp Clastics Y.

Update casing and cement program to current design.

Update HSU to 1280 acres.

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)  
**STAR HARRELL / Ph: (432) 848-9161**

Title **Regulatory Specialist**

Signature (Electronic Submission) \_\_\_\_\_ Date **05/22/2024**

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by  
**KEITH P IMMATTY / Ph: (575) 988-4722 / Approved**

Title **ENGINEER** Date **06/03/2024**

Office **CARLSBAD**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

## GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

## SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

*Item 13*: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

## Additional Information

### Additional Remarks

Update the Pool as reflected in the C-102.

### Location of Well

0. SHL: TR P / 1115 FSL / 1236 FEL / TWSP: 23S / RANGE: 33E / SECTION: 14 / LAT: 32.3004759 / LONG: -103.5386129 ( TVD: 0 feet, MD: 0 feet )

PPP: TR P / 100 FSL / 330 FEL / TWSP: 23S / RANGE: 33E / SECTION: 14 / LAT: 32.2975382 / LONG: -103.5356803 ( TVD: 11985 feet, MD: 12189 feet )

BHL: TR A / 100 FNL / 330 FEL / TWSP: 23S / RANGE: 33E / SECTION: 11 / LAT: 32.3261616 / LONG: -103.5356937 ( TVD: 12250 feet, MD: 22654 feet )

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) 476-3460 Fax: (505) 476-3462

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-52944	Pool Code 5170	Pool Name Bell Lake; Wolfcamp, North
Property Code 331169	Property Name DRIVER 14 FED COM	Well Number 709H
OGRID No. 7377	Operator Name EOG RESOURCES, INC.	Elevation 3653'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	14	23-S	33-E	-	1115'	SOUTH	1236'	EAST	LEA

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
A	11	23-S	33-E	-	100'	NORTH	330'	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
1280.00			PENDING COM AGREEMENT

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.

**SURFACE LOCATION (SHL)**  
NEW MEXICO EAST  
NAD 1983  
X=786888 Y=473956  
LAT.: N 32.3004759  
LONG.: W 103.5386129  
NAD 1927  
X=745705 Y=473896  
LAT.: N 32.3003521  
LONG.: W 103.5381323  
1115' FSL 1236' FEL

**KICK OFF POINT (KOP)**  
NEW MEXICO EAST  
NAD 1983  
X=787802 Y=472894  
LAT.: N 32.2975382  
LONG.: W 103.5356803  
NAD 1927  
X=746619 Y=472834  
LAT.: N 32.2974145  
LONG.: W 103.5351999  
50' FSL 330' FEL

**UPPER MOST PERF. (UMP)**  
NEW MEXICO EAST  
NAD 1983  
X=787802 Y=472944  
LAT.: N 32.2976756  
LONG.: W 103.5356804  
NAD 1927  
X=746618 Y=472884  
LAT.: N 32.2975519  
LONG.: W 103.5351999  
100' FSL 330' FEL

**FED PERF. POINT (FPP1)**  
NEW MEXICO EAST  
NAD 1983  
X=787761 Y=478126  
LAT.: N 32.3119209  
LONG.: W 103.5356871  
NAD 1927  
X=746578 Y=478066  
LAT.: N 32.3117972  
LONG.: W 103.5352062  
0' FNL 330' FEL

**LOWER MOST PERF. (LMP)**  
**BOTTOM HOLE LOCATION (BHL)**  
NEW MEXICO EAST  
NAD 1983  
X=787720 Y=483307  
LAT.: N 32.3261616  
LONG.: W 103.5356937  
NAD 1927  
X=746537 Y=483247  
LAT.: N 32.3260379  
LONG.: W 103.5352124  
100' FNL 330' FEL

**OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or released mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Star L Harrell  
Signature  
5/22/24  
Date

Star L Harrell  
Print Name

star\_harrell@eogresources.com  
E-mail Address

**SURVEYORS CERTIFICATION**  
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.  
05/07/2024  
Date of Survey  
Signature and Seal of Professional Surveyor:

RAMON DOMINGUEZ  
NEW MEXICO  
24508  
PROFESSIONAL SURVEYOR

5/15/2024 11:18:28 AM



## **Midland**

**Lea County, NM (NAD 83 NME)**

**Driver 14 Fed Com**

**#709H**

**OH**

**Plan: Plan #0.2**

## **Standard Planning Report**

**20 May, 2024**



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

<b>Project</b>	Lea County, NM (NAD 83 NME)		
<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		

<b>Site</b>	Driver 14 Fed Com				
<b>Site Position:</b>		<b>Northing:</b>	477,409.00 usft	<b>Latitude:</b>	32° 18' 36.085 N
<b>From:</b>	Map	<b>Easting:</b>	784,122.00 usft	<b>Longitude:</b>	103° 32' 50.936 W
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "		

<b>Well</b>	#709H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	473,956.00 usft	<b>Latitude:</b>	32° 18' 1.716 N
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	786,888.00 usft	<b>Longitude:</b>	103° 32' 19.006 W
<b>Position Uncertainty</b>	0.0 usft		<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,653.0 usft
<b>Grid Convergence:</b>	0.42 °					

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	2/6/2023	6.34	59.92	47,369.17616000

<b>Design</b>	Plan #0.2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	5.08

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/16/2024		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.0	22,560.8 Plan #0.2 (OH)	EOG MWD+IFR1 MWD + IFR1	



Planning Report

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<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

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	
1,850.0	0.00	0.00	1,850.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,636.0	15.72	139.28	2,626.2	-81.2	69.9	2.00	2.00	0.00	139.28	
7,016.5	15.72	139.28	6,842.8	-980.8	844.1	0.00	0.00	0.00	0.00	
7,802.5	0.00	0.00	7,619.0	-1,062.0	914.0	2.00	-2.00	0.00	180.00	
11,875.0	0.00	0.00	11,691.5	-1,062.0	914.0	0.00	0.00	0.00	0.00	0.00 KOP(Driver 14 Fed C
12,095.4	26.46	0.00	11,904.2	-1,012.0	914.0	12.00	12.00	0.00	0.00	0.00 FTP(Driver 14 Fed Cc
12,625.0	90.00	359.53	12,168.9	-584.5	911.6	12.00	12.00	-0.09	-0.52	
17,379.7	90.00	359.53	12,169.0	4,170.0	873.0	0.00	0.00	0.00	0.00	0.00 FEDPP(Driver 14 Fed
22,560.8	90.00	359.56	12,169.0	9,351.0	832.0	0.00	0.00	0.00	86.86	86.86 PBHL(Driver 14 Fed C



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,850.0	0.00	0.00	1,850.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	1.00	139.28	1,900.0	-0.3	0.3	-0.3	2.00	2.00	0.00
2,000.0	3.00	139.28	1,999.9	-3.0	2.6	-2.7	2.00	2.00	0.00
2,100.0	5.00	139.28	2,099.7	-8.3	7.1	-7.6	2.00	2.00	0.00
2,200.0	7.00	139.28	2,199.1	-16.2	13.9	-14.9	2.00	2.00	0.00
2,300.0	9.00	139.28	2,298.2	-26.7	23.0	-24.6	2.00	2.00	0.00
2,400.0	11.00	139.28	2,396.6	-39.9	34.3	-36.7	2.00	2.00	0.00
2,500.0	13.00	139.28	2,494.4	-55.7	47.9	-51.2	2.00	2.00	0.00
2,600.0	15.00	139.28	2,591.5	-74.0	63.7	-68.1	2.00	2.00	0.00
2,636.0	15.72	139.28	2,626.2	-81.2	69.9	-74.7	2.00	2.00	0.00
2,700.0	15.72	139.28	2,687.8	-94.4	81.2	-86.8	0.00	0.00	0.00
2,800.0	15.72	139.28	2,784.0	-114.9	98.9	-105.7	0.00	0.00	0.00
2,900.0	15.72	139.28	2,880.3	-135.4	116.6	-124.6	0.00	0.00	0.00
3,000.0	15.72	139.28	2,976.6	-156.0	134.2	-143.5	0.00	0.00	0.00
3,100.0	15.72	139.28	3,072.8	-176.5	151.9	-162.3	0.00	0.00	0.00
3,200.0	15.72	139.28	3,169.1	-197.0	169.6	-181.2	0.00	0.00	0.00
3,300.0	15.72	139.28	3,265.3	-217.6	187.3	-200.1	0.00	0.00	0.00
3,400.0	15.72	139.28	3,361.6	-238.1	204.9	-219.0	0.00	0.00	0.00
3,500.0	15.72	139.28	3,457.9	-258.6	222.6	-237.9	0.00	0.00	0.00
3,600.0	15.72	139.28	3,554.1	-279.2	240.3	-256.8	0.00	0.00	0.00
3,700.0	15.72	139.28	3,650.4	-299.7	257.9	-275.7	0.00	0.00	0.00
3,800.0	15.72	139.28	3,746.6	-320.3	275.6	-294.6	0.00	0.00	0.00
3,900.0	15.72	139.28	3,842.9	-340.8	293.3	-313.5	0.00	0.00	0.00
4,000.0	15.72	139.28	3,939.2	-361.3	311.0	-332.3	0.00	0.00	0.00
4,100.0	15.72	139.28	4,035.4	-381.9	328.6	-351.2	0.00	0.00	0.00
4,200.0	15.72	139.28	4,131.7	-402.4	346.3	-370.1	0.00	0.00	0.00
4,300.0	15.72	139.28	4,227.9	-422.9	364.0	-389.0	0.00	0.00	0.00
4,400.0	15.72	139.28	4,324.2	-443.5	381.7	-407.9	0.00	0.00	0.00
4,500.0	15.72	139.28	4,420.5	-464.0	399.3	-426.8	0.00	0.00	0.00
4,600.0	15.72	139.28	4,516.7	-484.5	417.0	-445.7	0.00	0.00	0.00
4,700.0	15.72	139.28	4,613.0	-505.1	434.7	-464.6	0.00	0.00	0.00
4,800.0	15.72	139.28	4,709.2	-525.6	452.4	-483.5	0.00	0.00	0.00
4,900.0	15.72	139.28	4,805.5	-546.1	470.0	-502.3	0.00	0.00	0.00
5,000.0	15.72	139.28	4,901.8	-566.7	487.7	-521.2	0.00	0.00	0.00
5,100.0	15.72	139.28	4,998.0	-587.2	505.4	-540.1	0.00	0.00	0.00



Planning Report

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<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)	
5,200.0	15.72	139.28	5,094.3	-607.8	523.1	-559.0	0.00	0.00	0.00	
5,300.0	15.72	139.28	5,190.5	-628.3	540.7	-577.9	0.00	0.00	0.00	
5,400.0	15.72	139.28	5,286.8	-648.8	558.4	-596.8	0.00	0.00	0.00	
5,500.0	15.72	139.28	5,383.1	-669.4	576.1	-615.7	0.00	0.00	0.00	
5,600.0	15.72	139.28	5,479.3	-689.9	593.8	-634.6	0.00	0.00	0.00	
5,700.0	15.72	139.28	5,575.6	-710.4	611.4	-653.4	0.00	0.00	0.00	
5,800.0	15.72	139.28	5,671.8	-731.0	629.1	-672.3	0.00	0.00	0.00	
5,900.0	15.72	139.28	5,768.1	-751.5	646.8	-691.2	0.00	0.00	0.00	
6,000.0	15.72	139.28	5,864.3	-772.0	664.4	-710.1	0.00	0.00	0.00	
6,100.0	15.72	139.28	5,960.6	-792.6	682.1	-729.0	0.00	0.00	0.00	
6,200.0	15.72	139.28	6,056.9	-813.1	699.8	-747.9	0.00	0.00	0.00	
6,300.0	15.72	139.28	6,153.1	-833.6	717.5	-766.8	0.00	0.00	0.00	
6,400.0	15.72	139.28	6,249.4	-854.2	735.1	-785.7	0.00	0.00	0.00	
6,500.0	15.72	139.28	6,345.6	-874.7	752.8	-804.6	0.00	0.00	0.00	
6,600.0	15.72	139.28	6,441.9	-895.3	770.5	-823.4	0.00	0.00	0.00	
6,700.0	15.72	139.28	6,538.2	-915.8	788.2	-842.3	0.00	0.00	0.00	
6,800.0	15.72	139.28	6,634.4	-936.3	805.8	-861.2	0.00	0.00	0.00	
6,900.0	15.72	139.28	6,730.7	-956.9	823.5	-880.1	0.00	0.00	0.00	
7,000.0	15.72	139.28	6,826.9	-977.4	841.2	-899.0	0.00	0.00	0.00	
7,016.5	15.72	139.28	6,842.8	-980.8	844.1	-902.1	0.00	0.00	0.00	
7,100.0	14.05	139.28	6,923.5	-997.0	858.1	-917.1	2.00	-2.00	0.00	
7,200.0	12.05	139.28	7,020.9	-1,014.2	872.8	-932.8	2.00	-2.00	0.00	
7,300.0	10.05	139.28	7,119.1	-1,028.7	885.3	-946.2	2.00	-2.00	0.00	
7,400.0	8.05	139.28	7,217.8	-1,040.6	895.6	-957.1	2.00	-2.00	0.00	
7,500.0	6.05	139.28	7,317.1	-1,049.9	903.6	-965.7	2.00	-2.00	0.00	
7,600.0	4.05	139.28	7,416.7	-1,056.6	909.3	-971.8	2.00	-2.00	0.00	
7,700.0	2.05	139.28	7,516.5	-1,060.6	912.8	-975.5	2.00	-2.00	0.00	
7,802.5	0.00	0.00	7,619.0	-1,062.0	914.0	-976.8	2.00	-2.00	0.00	
7,900.0	0.00	0.00	7,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,100.0	0.00	0.00	8,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,100.0	0.00	0.00	9,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)	
10,500.0	0.00	0.00	10,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,600.0	0.00	0.00	10,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,700.0	0.00	0.00	10,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,800.0	0.00	0.00	10,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
10,900.0	0.00	0.00	10,716.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,000.0	0.00	0.00	10,816.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,100.0	0.00	0.00	10,916.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,200.0	0.00	0.00	11,016.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,300.0	0.00	0.00	11,116.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,400.0	0.00	0.00	11,216.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,500.0	0.00	0.00	11,316.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,600.0	0.00	0.00	11,416.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,700.0	0.00	0.00	11,516.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,800.0	0.00	0.00	11,616.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,875.0	0.00	0.00	11,691.5	-1,062.0	914.0	-976.8	0.00	0.00	0.00	
11,900.0	3.00	0.00	11,716.5	-1,061.3	914.0	-976.2	12.00	12.00	0.00	
11,925.0	6.00	0.00	11,741.4	-1,059.4	914.0	-974.2	12.00	12.00	0.00	
11,950.0	9.00	0.00	11,766.2	-1,056.1	914.0	-971.0	12.00	12.00	0.00	
11,975.0	12.00	0.00	11,790.8	-1,051.6	914.0	-966.4	12.00	12.00	0.00	
12,000.0	15.00	0.00	11,815.1	-1,045.7	914.0	-960.6	12.00	12.00	0.00	
12,025.0	18.00	0.00	11,839.0	-1,038.6	914.0	-953.5	12.00	12.00	0.00	
12,050.0	21.00	0.00	11,862.6	-1,030.3	914.0	-945.2	12.00	12.00	0.00	
12,075.0	24.00	0.00	11,885.7	-1,020.7	914.0	-935.7	12.00	12.00	0.00	
12,095.4	26.46	0.00	11,904.2	-1,012.0	914.0	-927.0	12.00	12.00	0.00	
12,100.0	27.00	359.99	11,908.3	-1,010.0	914.0	-925.0	12.00	12.00	-0.24	
12,125.0	30.00	359.94	11,930.2	-998.0	914.0	-913.1	12.00	12.00	-0.21	
12,150.0	33.00	359.89	11,951.5	-985.0	914.0	-900.1	12.00	12.00	-0.18	
12,175.0	36.00	359.85	11,972.1	-970.8	913.9	-886.0	12.00	12.00	-0.15	
12,200.0	39.00	359.82	11,992.0	-955.6	913.9	-870.8	12.00	12.00	-0.13	
12,225.0	42.00	359.79	12,011.0	-939.3	913.8	-854.7	12.00	12.00	-0.12	
12,250.0	45.00	359.77	12,029.1	-922.1	913.8	-837.5	12.00	12.00	-0.10	
12,275.0	48.00	359.74	12,046.3	-904.0	913.7	-819.5	12.00	12.00	-0.09	
12,300.0	51.00	359.72	12,062.6	-885.0	913.6	-800.5	12.00	12.00	-0.08	
12,325.0	54.00	359.70	12,077.8	-865.2	913.5	-780.8	12.00	12.00	-0.08	
12,350.0	57.00	359.69	12,091.9	-844.6	913.4	-760.3	12.00	12.00	-0.07	
12,375.0	60.00	359.67	12,105.0	-823.3	913.3	-739.1	12.00	12.00	-0.07	
12,400.0	63.00	359.65	12,116.9	-801.3	913.1	-717.2	12.00	12.00	-0.06	
12,425.0	66.00	359.64	12,127.7	-778.7	913.0	-694.7	12.00	12.00	-0.06	
12,450.0	69.00	359.62	12,137.2	-755.6	912.9	-671.8	12.00	12.00	-0.06	
12,475.0	72.00	359.61	12,145.6	-732.1	912.7	-648.3	12.00	12.00	-0.05	
12,500.0	75.00	359.60	12,152.7	-708.1	912.5	-624.4	12.00	12.00	-0.05	
12,525.0	78.00	359.58	12,158.5	-683.8	912.4	-600.2	12.00	12.00	-0.05	
12,550.0	81.00	359.57	12,163.1	-659.2	912.2	-575.8	12.00	12.00	-0.05	
12,575.0	84.00	359.56	12,166.3	-634.4	912.0	-551.1	12.00	12.00	-0.05	
12,600.0	87.00	359.55	12,168.3	-609.5	911.8	-526.3	12.00	12.00	-0.05	
12,625.0	90.00	359.53	12,168.9	-584.5	911.6	-501.5	12.00	12.00	-0.05	
12,700.0	90.00	359.53	12,168.9	-509.5	911.0	-426.8	0.00	0.00	0.00	
12,800.0	90.00	359.53	12,168.9	-409.5	910.2	-327.3	0.00	0.00	0.00	
12,900.0	90.00	359.53	12,168.9	-309.5	909.4	-227.7	0.00	0.00	0.00	
13,000.0	90.00	359.53	12,169.0	-209.5	908.6	-128.2	0.00	0.00	0.00	
13,100.0	90.00	359.53	12,169.0	-109.5	907.7	-28.7	0.00	0.00	0.00	
13,200.0	90.00	359.53	12,169.0	-9.5	906.9	70.9	0.00	0.00	0.00	
13,300.0	90.00	359.53	12,169.0	90.5	906.1	170.4	0.00	0.00	0.00	
13,400.0	90.00	359.53	12,169.0	190.5	905.3	269.9	0.00	0.00	0.00	



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
13,500.0	90.00	359.53	12,169.0	290.4	904.5	369.5	0.00	0.00	0.00
13,600.0	90.00	359.53	12,169.0	390.4	903.7	469.0	0.00	0.00	0.00
13,700.0	90.00	359.53	12,169.0	490.4	902.9	568.5	0.00	0.00	0.00
13,800.0	90.00	359.53	12,169.0	590.4	902.1	668.1	0.00	0.00	0.00
13,900.0	90.00	359.53	12,169.0	690.4	901.2	767.6	0.00	0.00	0.00
14,000.0	90.00	359.53	12,169.0	790.4	900.4	867.1	0.00	0.00	0.00
14,100.0	90.00	359.53	12,169.0	890.4	899.6	966.7	0.00	0.00	0.00
14,200.0	90.00	359.53	12,169.0	990.4	898.8	1,066.2	0.00	0.00	0.00
14,300.0	90.00	359.53	12,169.0	1,090.4	898.0	1,165.7	0.00	0.00	0.00
14,400.0	90.00	359.53	12,169.0	1,190.4	897.2	1,265.2	0.00	0.00	0.00
14,500.0	90.00	359.53	12,169.0	1,290.4	896.4	1,364.8	0.00	0.00	0.00
14,600.0	90.00	359.53	12,169.0	1,390.4	895.6	1,464.3	0.00	0.00	0.00
14,700.0	90.00	359.53	12,169.0	1,490.4	894.8	1,563.8	0.00	0.00	0.00
14,800.0	90.00	359.53	12,169.0	1,590.4	893.9	1,663.4	0.00	0.00	0.00
14,900.0	90.00	359.53	12,169.0	1,690.4	893.1	1,762.9	0.00	0.00	0.00
15,000.0	90.00	359.53	12,169.0	1,790.4	892.3	1,862.4	0.00	0.00	0.00
15,100.0	90.00	359.53	12,169.0	1,890.4	891.5	1,962.0	0.00	0.00	0.00
15,200.0	90.00	359.53	12,169.0	1,990.4	890.7	2,061.5	0.00	0.00	0.00
15,300.0	90.00	359.53	12,169.0	2,090.4	889.9	2,161.0	0.00	0.00	0.00
15,400.0	90.00	359.53	12,169.0	2,190.4	889.1	2,260.6	0.00	0.00	0.00
15,500.0	90.00	359.53	12,169.0	2,290.4	888.3	2,360.1	0.00	0.00	0.00
15,600.0	90.00	359.53	12,169.0	2,390.4	887.4	2,459.6	0.00	0.00	0.00
15,700.0	90.00	359.53	12,169.0	2,490.4	886.6	2,559.2	0.00	0.00	0.00
15,800.0	90.00	359.53	12,169.0	2,590.4	885.8	2,658.7	0.00	0.00	0.00
15,900.0	90.00	359.53	12,169.0	2,690.4	885.0	2,758.2	0.00	0.00	0.00
16,000.0	90.00	359.53	12,169.0	2,790.4	884.2	2,857.7	0.00	0.00	0.00
16,100.0	90.00	359.53	12,169.0	2,890.4	883.4	2,957.3	0.00	0.00	0.00
16,200.0	90.00	359.53	12,169.0	2,990.4	882.6	3,056.8	0.00	0.00	0.00
16,300.0	90.00	359.53	12,169.0	3,090.4	881.8	3,156.3	0.00	0.00	0.00
16,400.0	90.00	359.53	12,169.0	3,190.4	881.0	3,255.9	0.00	0.00	0.00
16,500.0	90.00	359.53	12,169.0	3,290.3	880.1	3,355.4	0.00	0.00	0.00
16,600.0	90.00	359.53	12,169.0	3,390.3	879.3	3,454.9	0.00	0.00	0.00
16,700.0	90.00	359.53	12,169.0	3,490.3	878.5	3,554.5	0.00	0.00	0.00
16,800.0	90.00	359.53	12,169.0	3,590.3	877.7	3,654.0	0.00	0.00	0.00
16,900.0	90.00	359.53	12,169.0	3,690.3	876.9	3,753.5	0.00	0.00	0.00
17,000.0	90.00	359.53	12,169.0	3,790.3	876.1	3,853.1	0.00	0.00	0.00
17,100.0	90.00	359.53	12,169.0	3,890.3	875.3	3,952.6	0.00	0.00	0.00
17,200.0	90.00	359.53	12,169.0	3,990.3	874.5	4,052.1	0.00	0.00	0.00
17,300.0	90.00	359.53	12,169.0	4,090.3	873.6	4,151.7	0.00	0.00	0.00
17,379.7	90.00	359.53	12,169.0	4,170.0	873.0	4,231.0	0.00	0.00	0.00
17,400.0	90.00	359.53	12,169.0	4,190.3	872.8	4,251.2	0.00	0.00	0.00
17,500.0	90.00	359.54	12,169.0	4,290.3	872.0	4,350.7	0.00	0.00	0.00
17,600.0	90.00	359.54	12,169.0	4,390.3	871.2	4,450.2	0.00	0.00	0.00
17,700.0	90.00	359.54	12,169.0	4,490.3	870.4	4,549.8	0.00	0.00	0.00
17,800.0	90.00	359.54	12,169.0	4,590.3	869.6	4,649.3	0.00	0.00	0.00
17,900.0	90.00	359.54	12,169.0	4,690.3	868.8	4,748.8	0.00	0.00	0.00
18,000.0	90.00	359.54	12,169.0	4,790.3	868.0	4,848.4	0.00	0.00	0.00
18,100.0	90.00	359.54	12,169.0	4,890.3	867.2	4,947.9	0.00	0.00	0.00
18,200.0	90.00	359.54	12,169.0	4,990.3	866.4	5,047.4	0.00	0.00	0.00
18,300.0	90.00	359.54	12,169.0	5,090.3	865.6	5,147.0	0.00	0.00	0.00
18,400.0	90.00	359.54	12,169.0	5,190.3	864.8	5,246.5	0.00	0.00	0.00
18,500.0	90.00	359.54	12,169.0	5,290.3	864.0	5,346.0	0.00	0.00	0.00
18,600.0	90.00	359.54	12,169.0	5,390.3	863.2	5,445.6	0.00	0.00	0.00
18,700.0	90.00	359.54	12,169.0	5,490.3	862.4	5,545.1	0.00	0.00	0.00



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
18,800.0	90.00	359.54	12,169.0	5,590.3	861.5	5,644.6	0.00	0.00	0.00
18,900.0	90.00	359.54	12,169.0	5,690.3	860.7	5,744.2	0.00	0.00	0.00
19,000.0	90.00	359.54	12,169.0	5,790.3	859.9	5,843.7	0.00	0.00	0.00
19,100.0	90.00	359.54	12,169.0	5,890.3	859.2	5,943.2	0.00	0.00	0.00
19,200.0	90.00	359.54	12,169.0	5,990.3	858.4	6,042.8	0.00	0.00	0.00
19,300.0	90.00	359.54	12,169.0	6,090.3	857.6	6,142.3	0.00	0.00	0.00
19,400.0	90.00	359.54	12,169.0	6,190.3	856.8	6,241.8	0.00	0.00	0.00
19,500.0	90.00	359.54	12,169.0	6,290.3	856.0	6,341.4	0.00	0.00	0.00
19,600.0	90.00	359.54	12,169.0	6,390.2	855.2	6,440.9	0.00	0.00	0.00
19,700.0	90.00	359.55	12,169.0	6,490.2	854.4	6,540.4	0.00	0.00	0.00
19,800.0	90.00	359.55	12,169.0	6,590.2	853.6	6,640.0	0.00	0.00	0.00
19,900.0	90.00	359.55	12,169.0	6,690.2	852.8	6,739.5	0.00	0.00	0.00
20,000.0	90.00	359.55	12,169.0	6,790.2	852.0	6,839.0	0.00	0.00	0.00
20,100.0	90.00	359.55	12,169.0	6,890.2	851.2	6,938.6	0.00	0.00	0.00
20,200.0	90.00	359.55	12,169.0	6,990.2	850.4	7,038.1	0.00	0.00	0.00
20,300.0	90.00	359.55	12,169.0	7,090.2	849.6	7,137.6	0.00	0.00	0.00
20,400.0	90.00	359.55	12,169.0	7,190.2	848.8	7,237.2	0.00	0.00	0.00
20,500.0	90.00	359.55	12,169.0	7,290.2	848.1	7,336.7	0.00	0.00	0.00
20,600.0	90.00	359.55	12,169.0	7,390.2	847.3	7,436.2	0.00	0.00	0.00
20,700.0	90.00	359.55	12,169.0	7,490.2	846.5	7,535.8	0.00	0.00	0.00
20,800.0	90.00	359.55	12,169.0	7,590.2	845.7	7,635.3	0.00	0.00	0.00
20,900.0	90.00	359.55	12,169.0	7,690.2	844.9	7,734.8	0.00	0.00	0.00
21,000.0	90.00	359.55	12,169.0	7,790.2	844.1	7,834.4	0.00	0.00	0.00
21,100.0	90.00	359.55	12,169.0	7,890.2	843.3	7,933.9	0.00	0.00	0.00
21,200.0	90.00	359.55	12,169.0	7,990.2	842.6	8,033.4	0.00	0.00	0.00
21,300.0	90.00	359.55	12,169.0	8,090.2	841.8	8,133.0	0.00	0.00	0.00
21,400.0	90.00	359.55	12,169.0	8,190.2	841.0	8,232.5	0.00	0.00	0.00
21,500.0	90.00	359.55	12,169.0	8,290.2	840.2	8,332.0	0.00	0.00	0.00
21,600.0	90.00	359.55	12,169.0	8,390.2	839.4	8,431.6	0.00	0.00	0.00
21,700.0	90.00	359.55	12,169.0	8,490.2	838.7	8,531.1	0.00	0.00	0.00
21,800.0	90.00	359.55	12,169.0	8,590.2	837.9	8,630.6	0.00	0.00	0.00
21,900.0	90.00	359.56	12,169.0	8,690.2	837.1	8,730.2	0.00	0.00	0.00
22,000.0	90.00	359.56	12,169.0	8,790.2	836.3	8,829.7	0.00	0.00	0.00
22,100.0	90.00	359.56	12,169.0	8,890.2	835.6	8,929.2	0.00	0.00	0.00
22,200.0	90.00	359.56	12,169.0	8,990.2	834.8	9,028.8	0.00	0.00	0.00
22,300.0	90.00	359.56	12,169.0	9,090.2	834.0	9,128.3	0.00	0.00	0.00
22,400.0	90.00	359.56	12,169.0	9,190.2	833.2	9,227.8	0.00	0.00	0.00
22,500.0	90.00	359.56	12,169.0	9,290.2	832.5	9,327.4	0.00	0.00	0.00
22,560.8	90.00	359.56	12,169.0	9,351.0	832.0	9,387.9	0.00	0.00	0.00



Planning Report

<b>Database:</b>	PEDMB	<b>Local Co-ordinate Reference:</b>	Well #709H
<b>Company:</b>	Midland	<b>TVD Reference:</b>	kb = 26' @ 3679.0usft
<b>Project:</b>	Lea County, NM (NAD 83 NME)	<b>MD Reference:</b>	kb = 26' @ 3679.0usft
<b>Site:</b>	Driver 14 Fed Com	<b>North Reference:</b>	Grid
<b>Well:</b>	#709H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #0.2		

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
- Shape										
KOP(Driver 14 Fed Com - plan hits target center - Point	0.00	0.00	11,691.5	-1,062.0	914.0	472,894.00	787,802.00	32° 17' 51.141 N	103° 32' 8.450 W	
FTP(Driver 14 Fed Com - plan hits target center - Point	0.00	0.00	11,904.2	-1,012.0	914.0	472,944.00	787,802.00	32° 17' 51.635 N	103° 32' 8.445 W	
PBHL(Driver 14 Fed Cor - plan hits target center - Point	0.00	0.01	12,169.0	9,351.0	832.0	483,307.00	787,720.00	32° 19' 34.183 N	103° 32' 8.502 W	
FEDPP(Driver 14 Fed C - plan hits target center - Point	0.00	0.01	12,169.0	4,170.0	873.0	478,126.00	787,761.00	32° 18' 42.914 N	103° 32' 8.474 W	

Lea County, NM (NAD 83 NME)

Driver 14 Fed Com #709H

Plan #0.2



To convert a Magnetic Direction to a Grid Direction, Add 5.92°  
 To convert a Magnetic Direction to a True Direction, Add 6.34° East  
 To convert a True Direction to a Grid Direction, Subtract 0.42°

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

WELL DETAILS: #709H

kb = 26' @ 3679.0usft 3653.0  
 Northing 473956.00 Easting 786888.00 Latitude 32° 18' 1.716 N Longitude 103° 32' 19.006 W

SECTION DETAILS

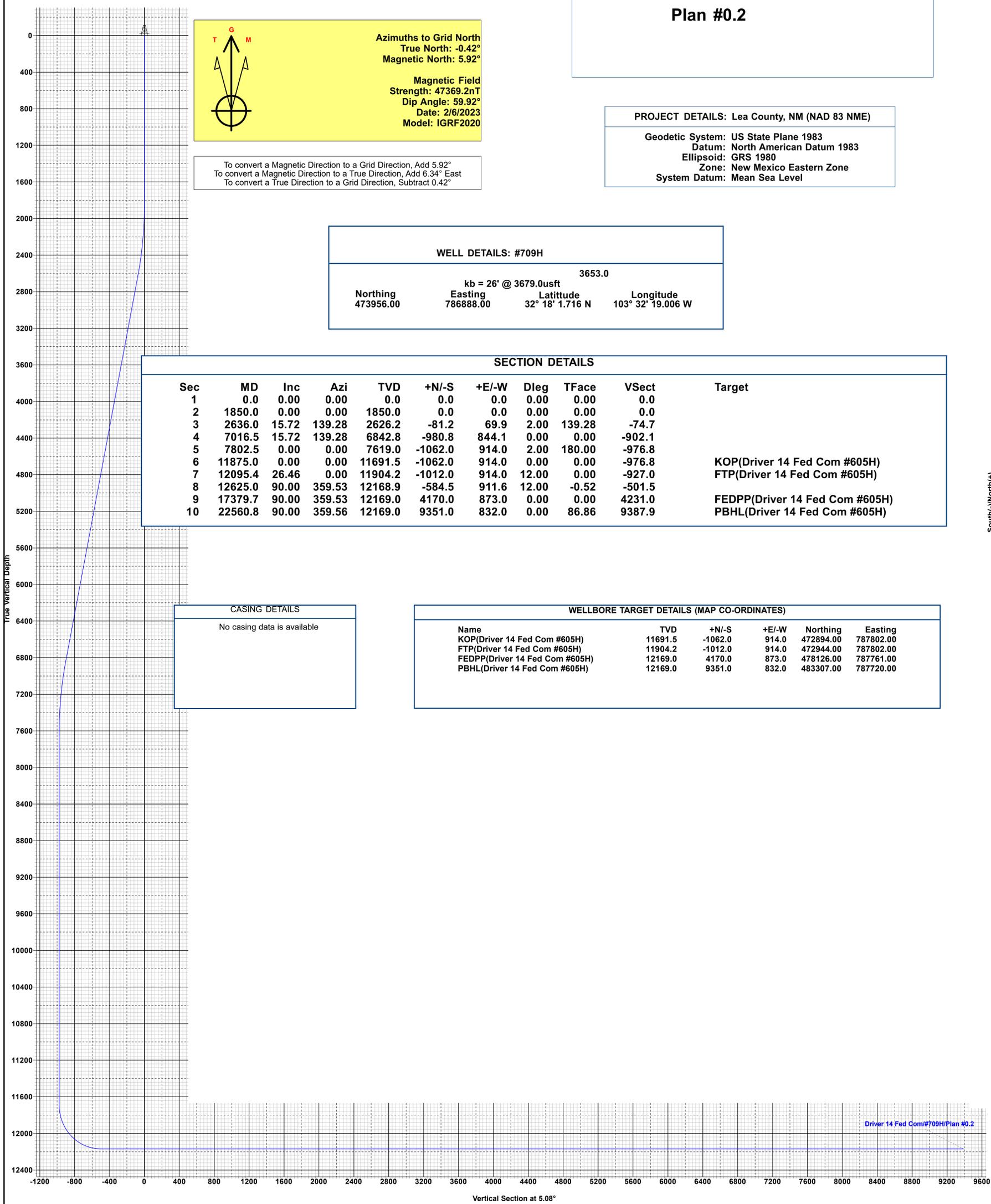
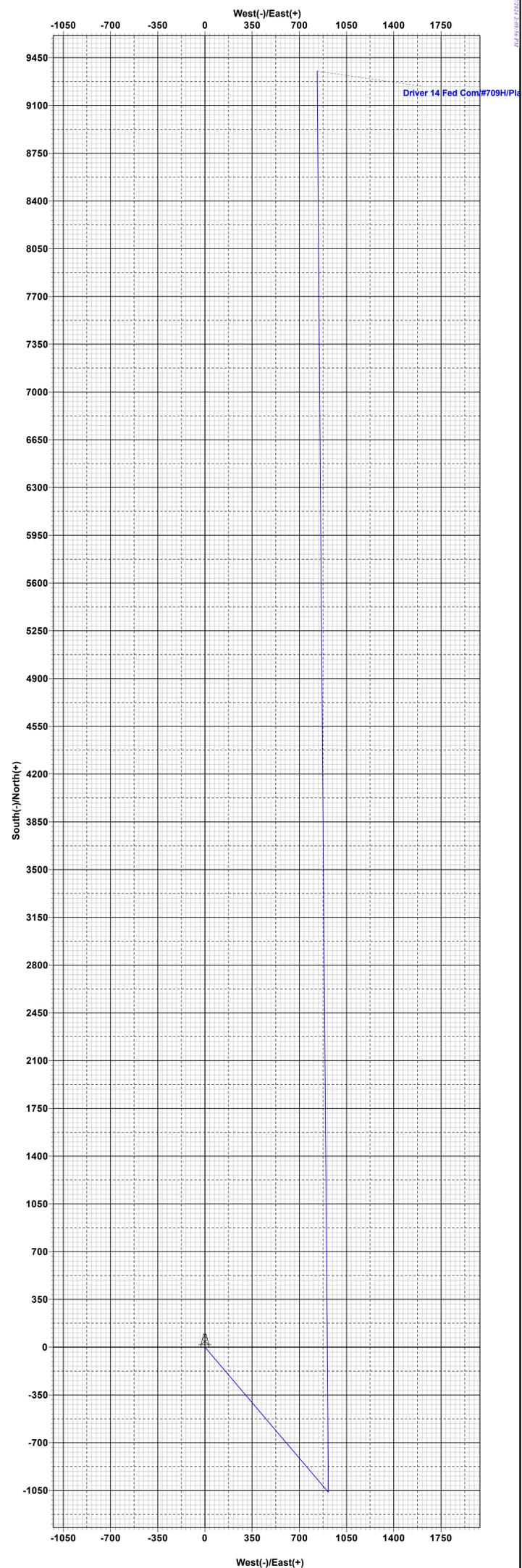
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1850.0	0.00	0.00	1850.0	0.0	0.0	0.00	0.00	0.0	
3	2636.0	15.72	139.28	2626.2	-81.2	69.9	2.00	139.28	-74.7	
4	7016.5	15.72	139.28	6842.8	-980.8	844.1	0.00	0.00	-902.1	
5	7802.5	0.00	0.00	7619.0	-1062.0	914.0	2.00	180.00	-976.8	
6	11875.0	0.00	0.00	11691.5	-1062.0	914.0	0.00	0.00	-976.8	KOP(Driver 14 Fed Com #605H)
7	12095.4	26.46	0.00	11904.2	-1012.0	914.0	12.00	0.00	-976.8	FTP(Driver 14 Fed Com #605H)
8	12625.0	90.00	359.53	12168.9	-584.5	911.6	12.00	-0.52	-501.5	
9	17379.7	90.00	359.53	12169.0	4170.0	873.0	0.00	0.00	4231.0	FEDPP(Driver 14 Fed Com #605H)
10	22560.8	90.00	359.56	12169.0	9351.0	832.0	0.00	86.86	9387.9	PBHL(Driver 14 Fed Com #605H)

CASING DETAILS

No casing data is available

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP(Driver 14 Fed Com #605H)	11691.5	-1062.0	914.0	472894.00	787802.00
FTP(Driver 14 Fed Com #605H)	11904.2	-1012.0	914.0	472944.00	787802.00
FEDPP(Driver 14 Fed Com #605H)	12169.0	4170.0	873.0	478126.00	787761.00
PBHL(Driver 14 Fed Com #605H)	12169.0	9351.0	832.0	483307.00	787720.00



Vertical Section at 5.08°

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	EOG RESOURCES INCORPORATED
WELL NAME & NO.:	DRIVER 14 FED COM 709H
SURFACE HOLE FOOTAGE:	1115'/S & 1236'/E
BOTTOM HOLE FOOTAGE:	100'/N & 330'/E
LOCATION:	Section 14, T.23 S., R.33 E.
COUNTY:	Lea County, New Mexico

**ALL PREVIOUS COAs STILL APPLY**

COA

H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Wellhead Variance	<input type="radio"/> Diverter		
Other	<input type="checkbox"/> 4 String	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Open Annulus
Cementing	<input type="checkbox"/> Contingency Cement Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input checked="" type="checkbox"/> Primary Cement Squeeze
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Special Requirements	<input type="checkbox"/> Batch Sundry		
Special Requirements Variance	<input checked="" type="checkbox"/> Break Testing	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Casing Clearance

### A. CASING

#### Primary Casing Design:

1. The **9-5/8** inch surface casing shall be set at approximately **1,500** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

- completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **7-5/8** inch intermediate casing shall be set at approximately **11,310** feet TVD. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon**
- b. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

**Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 7-5/8" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.**

**If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.**

**Bradenhead squeeze in the production interval is only as an edge case remediation measure and is NOT approved in this COA. If production cement job experiences losses and a bradenhead squeeze is needed for tie-back, BLM Engineering should be notified prior to job with volumes and planned wellbore schematic. CBL will be needed when this occurs.**

**If cement does not reach surface, the next casing string must come to surface.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

3. The **5-1/2** inch production casing shall be set at approximately **22,654** feet. The minimum required fill of cement behind the **5-1/2** inch production casing is:

**Option 1 (Single Stage):**

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**Alternate Casing Design:**

1. The **10-3/4** inch surface casing shall be set at approximately **1,500** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The **8-3/4** inch intermediate casing shall be set at approximately **11,310** feet. **Keep casing full to stay within collapse SF requirement.** The minimum required fill of cement behind the **8-3/4** inch intermediate casing is:

**Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- c. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon**
- d. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

**Operator has proposed to pump down 10-3/4" X 8-3/4" annulus. Operator must top out cement after the bradenhead squeeze and verify cement to surface. Operator can also check TOC with Echo-meter. CBL must be run from TD of the 8-3/4" casing to surface if confidence is lacking on the quality of the bradenhead squeeze cement job. Submit results to BLM.**

**If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.**

**Bradenhead squeeze in the production interval is only as an edge case remediation measure and is NOT approved in this COA. If production cement job experiences losses and a bradenhead squeeze is needed for tie-back, BLM Engineering should be notified prior to job with volumes and planned wellbore schematic. CBL will be needed when this occurs.**

**If cement does not reach surface, the next casing string must come to surface.**

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

3. The **6 inch X 5.5 inch** tapered production casing shall be set at approximately **22,654 feet**. **Operator has requested the optionality to run only the 6 inch or only the 5.5 inch casing from surface to TD. These alternatives have been reviewed and is OK. Keep casing full to stay within collapse SF requirement.** The minimum required fill of cement behind the **6 inch x 5.5 inch** tapered production casing is:

**Option 1 (Single Stage):**

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system) BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (**575-706-2779**) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR part 3170 Subpart 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

#### **Offline Cementing**

OK for surface and intermediate cementing. Notify the BLM prior to the commencement of any offline cementing procedure.

#### **Casing Clearance:**

- 500' tie back OK in production interval.
- Operator aware on lack of 1" optionality in surface interval and will do remediation if needed.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

## **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

**[BLM\\_NM\\_CFO\\_DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV)**

(575) 361-2822

Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the

following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's

requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

#### C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**KPI 6/1/2024**

**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

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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**

CONDITIONS

Action 355123

**CONDITIONS**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 355123
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

Created By	Condition	Condition Date
pkautz	None	8/16/2024