Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.

2. Name of Operator

9. API Well No.
30-015-57055

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*

12. County or Parish

13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
Title		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	Office	

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 05/08/2025

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: 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 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Approval Date: 05/08/2025

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	Pool Code	Pool Name
	51120	RED LAKE; GLORIETA-YESO

Property Code	Property Name	Well Number
	BUNNY 3-4 FED COM	15H

OGRID No.	Operator Name	Elevation
372290	RILEY PERMIAN OPERATING COMPANY LLC	3557'

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	18 S	27 E		1202	SOUTH	394	WEST	EDDY

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
16	4	18 S	27 E		1320	SOUTH	10	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidated Code	Order No.
305.80			

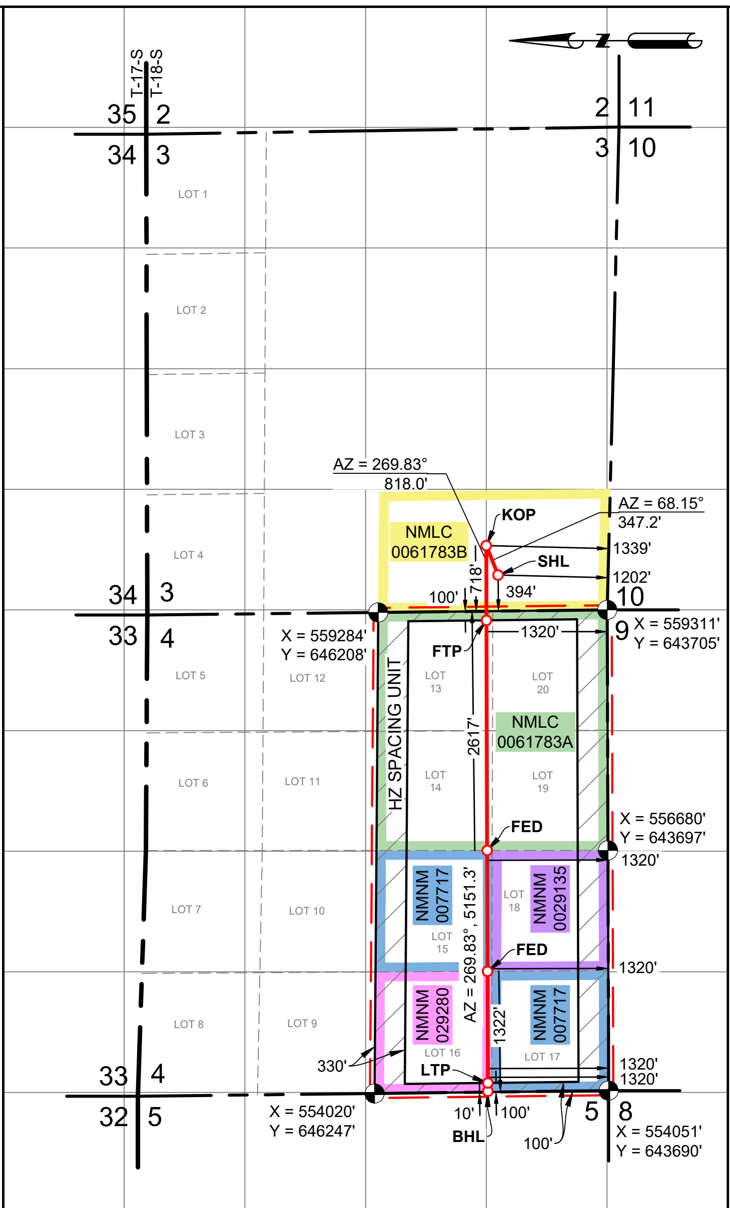
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

SURFACE LOCATION
NEW MEXICO EAST
NAD 1983
X=559692' Y=644898'
LAT=N32.772845°
LONG=W104.273615°
NAD 1927
X=518513' Y=644835'
LAT=N32.772730°
LONG=W104.273101°
1202' FSL 394' FWL

KOP LOCATION
NEW MEXICO EAST
NAD 1983
X=560015' Y=645027'
LAT=N32.773200°
LONG=W104.272566°
NAD 1927
X=518836' Y=644965'
LAT=N32.773085°
LONG=W104.272052°
1339' FSL 718' FWL

FIRST TAKE POINT
NEW MEXICO EAST
NAD 1983
X=559197' Y=645025'
LAT=N32.773194°
LONG=W104.275228°
NAD 1927
X=518018' Y=644962'
LAT=N32.773080°
LONG=W104.274714°
1320' FSL 100' FEL

FED PERF. POINT
NEW MEXICO EAST
NAD 1983
X=556680' Y=645018'
LAT=N32.773177°
LONG=W104.283417°
NAD 1927
X=515501' Y=644955'
LAT=N32.773063°
LONG=W104.282903°
1320' FSL 2617' FEL



FED PERF. POINT
NEW MEXICO EAST
NAD 1983
X=555358' Y=645014'
LAT=N32.773168°
LONG=W104.287719°
NAD 1927
X=514179' Y=644951'
LAT=N32.773054°
LONG=W104.287204°
1320' FSL 1322' FWL

LAST TAKE POINT
NEW MEXICO EAST
NAD 1983
X=554135' Y=645010'
LAT=N32.773159°
LONG=W104.291695°
NAD 1927
X=512956' Y=644947'
LAT=N32.773045°
LONG=W104.291180°
1320' FSL 100' FWL

BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1983
X=554045' Y=645010'
LAT=N32.773159°
LONG=W104.291988°
NAD 1927
X=512866' Y=644947'
LAT=N32.773044°
LONG=W104.291473°
1320' FSL 10' FWL

OPERATOR CERTIFICATION

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

Spence Laird 2/12/2025
Signature Date

Spence Laird
Print Name

spencelaird@rileypermian.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.

MARCH 11, 2024
Date of Survey
Signature and Seal of Professional Surveyor:

MITCHELL L. McDONALD
NEW MEXICO
29821
02/10/2025
PROFESSIONAL SURVEYOR

Job No.: REPX_B240002 MITCHELL L. MCDONALD N.M.P.L.S. Certificate Number 29821

AFMSS
U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Drilling Plan Data Report
06/11/2025

APD ID: 10400099044 **Submission Date:** 06/17/2024

Operator Name: RILEY PERMIAN OPERATING COMPANY LLC

Well Name: BUNNY 3-4 FED COM **Well Number:** 15H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
15593629	QUATERNARY	0	150	150	DOLOMITE, SANDSTONE	USEABLE WATER	N
15593630	QUEEN	-694	694	694	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
15593631	GRAYBURG	-1029	1029	1030	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
15593632	SAN ANDRES	-1294	1294	1298	DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
15593633	GLORIETA	-2675	2675	2703	SANDSTONE, SILTSTONE	NATURAL GAS, OIL	N
15593634	YESO	-2840	2840	2869	ANHYDRITE, DOLOMITE, SILTSTONE	NATURAL GAS, OIL	Y
15593626		0					
15593627		0					

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M **Rating Depth:** 4200

Equipment: The blowout preventer equipment (BOP) shown in Exhibit 10 will consist of a double ram-type (3000 psi WP) minimum preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 5" drill pipe rams on bottom. The 13-5/8" BOP will be nipped up on the 13-3/8" surface casing and tested by a 3rd party to 2000 psi used continuously until TD is reached.
Requesting Variance? YES

Variance request: A variance is requested to use a Multi Bowl Wellhead System and Flex Hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test will be kept on the rig.
Testing Procedure: All BOPs and accessory equipment will be tested to 2000 psi before drilling out of intermediate casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit 10) will include a Kelly cock and floor safety valve and choke lines and choke manifold with a minimum 2000 psi WP rating.

Choke Diagram Attachment:

BOP_Choke_Diagram_20240523160317.pdf

Operator Name: RILEY PERMIAN OPERATING COMPANY LLC

Well Name: BUNNY 3-4 FED COM **Well Number:** 15H

H3_051622_1_Choke_Hose_5Yr_Cert__May_16_22__202206281108_20241114155953.pdf

BOP Diagram Attachment:

BOP_Choke_Diagram_20240523160723.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	400	0	400	3557	3157	400	J-55	48	ST&C	3.867	12.385	DRY	3.717	DRY	3.717
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	1350	0	1345	3557	2212	1350	J-55	36	LT&C	2.821	4.916	DRY	3.212	DRY	3.212
3	PRODUCTION	8.75	7.0	NEW	API	Y	0	4082	0	3823	3557	-266	4082	HCL-80	32	BUTT	5.686	4.626	DRY	2.435	DRY	2.435
4	PRODUCTION	8.75	5.5	NEW	API	Y	4082	9534	3823	3900	-266	-343	5452	HCL-80	20	BUTT	5.697	4.818	DRY	1.523	DRY	1.523

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bunny_3_4_Fed_Com_15H___Casing_Assumptions___RevB___29Oct24_20241114160141.pdf

Operator Name: RILEY PERMIAN OPERATING COMPANY LLC

Well Name: BUNNY 3-4 FED COM **Well Number:** 15H

Casing Attachments

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Bunny_3_4_Fed_Com_15H___Casing_Assumptions___RevB___29Oct24_20241114160522.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

7.0_32.00_HCL_80_BTC_20240617102817.pdf

Casing Design Assumptions and Worksheet(s):

Bunny_3_4_Fed_Com_15H___Casing_Assumptions___RevB___29Oct24_20241114160602.pdf

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Data_Sheet_5.500_Inch_20.00__L80HC_BTC_CENTRIC_Revised_May_2020_20240611111515.pdf

Casing Design Assumptions and Worksheet(s):

Bunny_3_4_Fed_Com_15H___Casing_Assumptions___RevB___29Oct24_20241114160624.pdf

Section 4 - Cement

Operator Name: RILEY PERMIAN OPERATING COMPANY LLC

Well Name: BUNNY 3-4 FED COM **Well Number:** 15H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Lead		0	945	242	1.65	12.8	399.53	35	Class C HSR	Cement Extender - Fly Ash (OTX 1) Accelerators - A-2 & A-5 Extender Viscosifier - Bentonite Foam Preventer - FP-28L Retarder - R-7C
INTERMEDIATE	Tail		945	2275	129	1.33	14.8	171.24	35	Class C HSR	Accelerator - A-2 Fluid Loss - FL-66 Foam Preventer - FP-28L
SURFACE	Lead		0	945	418	1.33	14.8	555.72	100	Class C HSR	Accelerator - A-2 Foam Preventer - FP-28L Anti Static Additive - Static Free
PRODUCTION	Lead		0	2275	192	2.49	11.5	478.81	40	Class C HSR	Cement Extender - Fly Ash (OTX 1) Accelerator - A-30 Thixotropic - ATHX-1102 Extender Viscosifier - Bentonite Fluid Loss - FL-66 Foam Preventer - FP-28L Retarder - R-7C Anti-Static - Static Free
PRODUCTION	Tail		2275	9534	1789	1.29	13.7	2308.38	40	Class C HSR	Cement Extenders - Fly Ash (OTX-1) & AEXT-1012 Viscosifier - ASA-301 Bond Enhancers - BA-90 & EC-1 Dispersant - CD-32A Fluid Loss - FL-66 Foam Preventer - FP-28L Retarder - R-7C

Operator Name: RILEY PERMIAN OPERATING COMPANY LLC

Well Name: BUNNY 3-4 FED COM **Well Number:** 15H

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with 43 CFR 3172:

Diagram of the equipment for the circulating system in accordance with 43 CFR 3172:

Describe what will be on location to control well or mitigate other conditions: The well will be drilled to TD with a combination of fresh and cut brine mud system.

Describe the mud monitoring system utilized: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	400	WATER-BASED MUD	8.4	9.2							
400	1350	SALT SATURATED	10	10.2							
1350	9534	OIL-BASED MUD	8.8	9.2							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

A. The logging program will consist of GR log from intermediate shoe to TD
B. Drill Stem test is not anticipated.
C. No conventional coring is anticipated.
D. Further testing procedures will be determined at TD.
E. Mud log will be taken from surface casing shoe to TD.

List of open and cased hole logs run in the well:

MEASUREMENT WHILE DRILLING,GAMMA RAY LOG,

Coring operation description for the well:

No conventional coring is anticipated. - see drilling prog

Operator Name: RILEY PERMIAN OPERATING COMPANY LLC

Well Name: BUNNY 3-4 FED COM **Well Number:** 15H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 1866 **Anticipated Surface Pressure:** 1007

Anticipated Bottom Hole Temperature(F): 120

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

H2S_Plan_20240523160212.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Bunny_3_4_Fed_Com_15H___Well_Plan_v1_20240617103421.pdf

Other proposed operations facets description:

BLM Drilling Plan as attachment

Other proposed operations facets attachment:

Bunny_WasteMinimizationPlan_07092024_20240709124649.pdf

Bunny_3_4_Fed_Com_15H___Drilling_Program___Ascent___RevB___13Nov24_20241114161205.pdf

Other Variance request(s)?: N

Other Variance attachment:

Company: Riley Permian Operating Co., LLC
Well: Bunny 3-4 Fed Com 15H
County: Eddy County, New Mexico (NAD 83)
Rig: Akita 523
Wellbore: Wellbore #1
Design: Design #1
Date: 10:00, April 09 2024

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

To convert a Magnetic Direction to a Grid Direction, Add 6.718°
To convert a Magnetic Direction to a True Direction, Add 6.750° East
To convert a True Direction to a Grid Direction, Subtract 0.032°

Azimuths to Grid North
True North: -0.03°
Magnetic North: 6.72°

Magnetic Field
Strength: 47425.1nT
Dip Angle: 60.33°
Date: 5/1/2024
Model: HDGM2024

SURVEY PROGRAM

Depth From	Depth To	Survey/Plan	Tool
0.00	9534.38	Design #1 (Wellbore #1)	MWD+HRGM

SECTION DETAILS

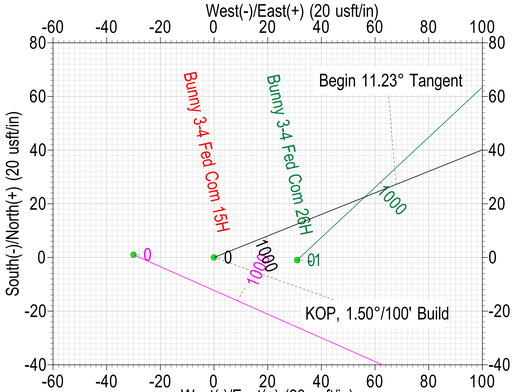
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.00	KOP, 1.50°/100' Build
1348.37	11.23	68.15	1343.59	27.20	67.83	1.50	68.151	-67.91	Begin 11.23° Tangent
2383.99	11.23	68.15	2359.40	102.22	254.95	0.00	0.000	-255.25	Begin 1.50°/100' Drop
3132.36	0.00	0.00	3102.99	129.42	322.78	1.50	180.000	-323.16	KOP, 8.00°/100' Build
3882.36	60.00	269.83	3723.24	128.36	-35.32	8.00	269.830	34.94	Hold 60.00° Inc, 269.83° Azm
4082.36	60.00	269.83	3823.24	127.84	-208.52	0.00	0.000	208.14	Begin 10.00°/100' Build
4382.36	90.00	269.83	3900.00	127.00	-495.00	10.00	0.006	494.62	Begin 90.00° Lateral
9534.38	90.00	269.83	3900.00	112.00	-5647.00	0.00	0.000	5646.64	PBHL

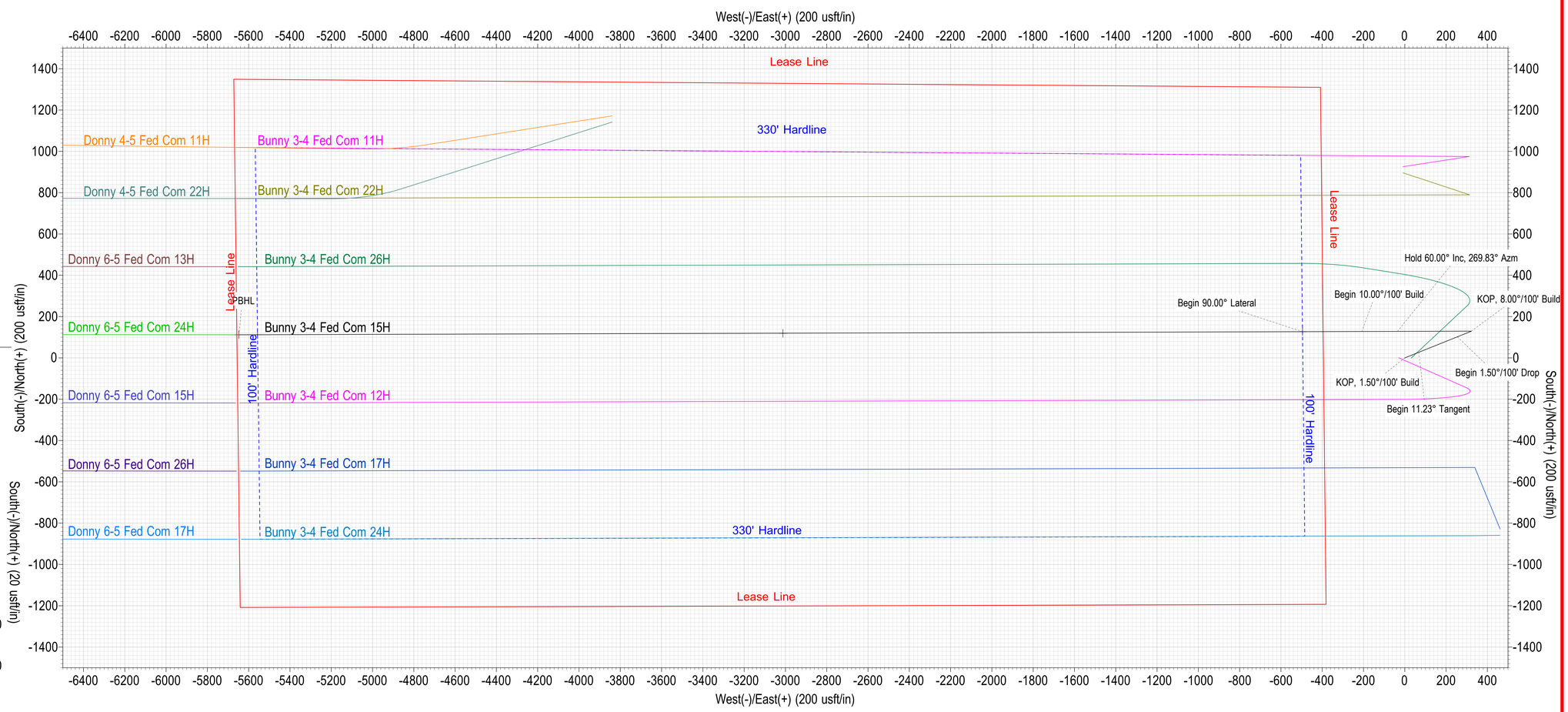
WELL DETAILS: Bunny 3-4 Fed Com 15H

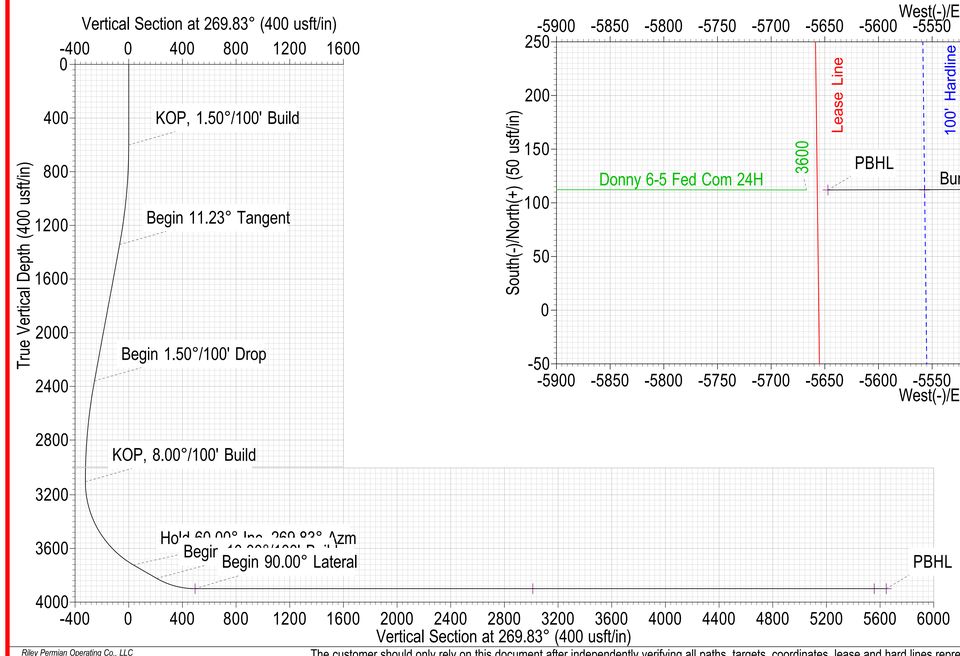
+N/-S	+E/-W	GL @ 3557.00 Northing	WELL @ 3577.00usft (Akita 523) Easting	Latitude	Longitude
0.00	0.00	644898.00	559692.00	32° 46' 22.239 N	104° 16' 25.020 W

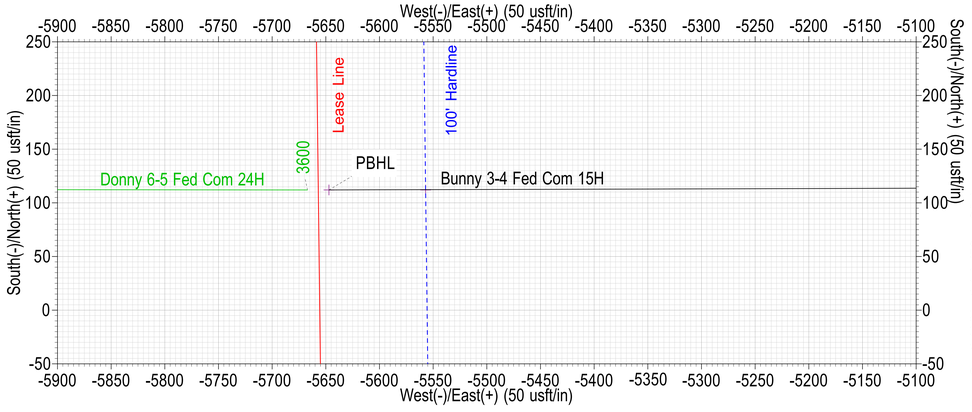
DESIGN TARGET DETAILS

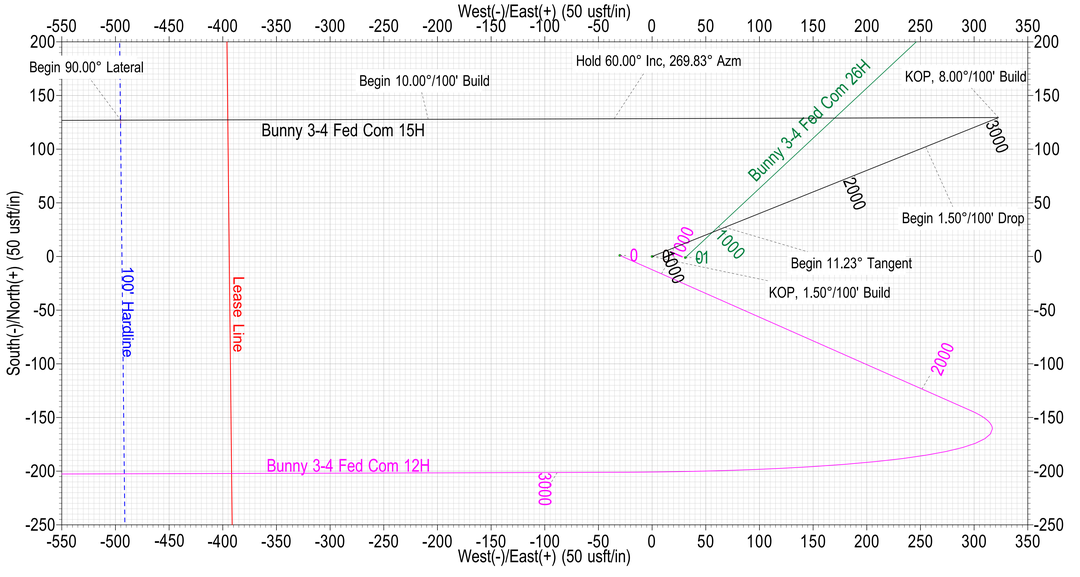
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Fed Perf. Point_Bunny 15H	3900.00	119.00	-3012.00	645017.00	556680.00	32° 46' 23.432 N	104° 17' 0.298 W
FTP_Bunny 15H	3900.00	127.00	-495.00	645025.00	559197.00	32° 46' 23.499 N	104° 16' 30.817 W
Lower most Perf._Bunny 15H	3900.00	112.00	-5557.00	645010.00	554135.00	32° 46' 23.374 N	104° 17' 30.107 W
PBHL_Bunny 15H	3900.00	112.00	-5647.00	645010.00	554045.00	32° 46' 23.374 N	104° 17' 31.161 W











MS Directional

Riley Permian Operating Co., LLC
Bunny 3-4 Fed Com 15H
Akita 523

Riley Permian Operating Co., LLC

Eddy County, New Mexico (NAD 83)
Bunny (11, 12, 15, 17, 22, 24, 26)
Bunny 3-4 Fed Com 15H

Wellbore #1

Plan: Design #1

Standard Planning Report

09 April, 2024

MS Directional
Planning Report

Database:	EDM 5000.15 Conroe DB	**Local Co-ordinate Reference:**	Well Bunny 3-4 Fed Com 15H
Company:	Riley Permian Operating Co., LLC	**TVD Reference:**	WELL @ 3577.00usft (Akita 523)
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	WELL @ 3577.00usft (Akita 523)
Site:	Bunny (11, 12, 15, 17, 22, 24, 26)	**North Reference:**	Grid
Well:	Bunny 3-4 Fed Com 15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project Eddy County, New Mexico (NAD 83)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Bunny (11, 12, 15, 17, 22, 24, 26)

Site Position:		**Northing:**	645,794.00 usft	**Latitude:**	32° 46' 31.106 N
From:	Map	**Easting:**	559,684.00 usft	**Longitude:**	104° 16' 25.108 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well Bunny 3-4 Fed Com 15H

Well Position	**+N/-S**	0.00 usft	**Northing:**	644,898.00 usft	**Latitude:**	32° 46' 22.239 N
	+E/-W	0.00 usft	**Easting:**	559,692.00 usft	**Longitude:**	104° 16' 25.020 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,557.00 usft
Grid Convergence:		0.032 °				

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2024	5/1/2024	6.750	60.333	47,425.10

Design Design #1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.83

Plan Survey Tool Program **Date** 4/9/2024

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	9,534.38	Design #1 (Wellbore #1)	MWD+HRGM	
				OWSG MWD + HRGM	

MS Directional
Planning Report

Database:	EDM 5000.15 Conroe DB	**Local Co-ordinate Reference:**	Well Bunny 3-4 Fed Com 15H
Company:	Riley Permian Operating Co., LLC	**TVD Reference:**	WELL @ 3577.00usft (Akita 523)
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	WELL @ 3577.00usft (Akita 523)
Site:	Bunny (11, 12, 15, 17, 22, 24, 26)	**North Reference:**	Grid
Well:	Bunny 3-4 Fed Com 15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.000	
1,348.37	11.23	68.15	1,343.59	27.20	67.83	1.50	1.50	0.00	68.151	
2,383.99	11.23	68.15	2,359.40	102.22	254.95	0.00	0.00	0.00	0.000	
3,132.36	0.00	0.00	3,102.99	129.42	322.78	1.50	-1.50	0.00	180.000	
3,882.36	60.00	269.83	3,723.24	128.36	-35.32	8.00	8.00	0.00	269.830	
4,082.36	60.00	269.83	3,823.24	127.84	-208.52	0.00	0.00	0.00	0.000	
4,382.36	90.00	269.83	3,900.00	127.00	-495.00	10.00	10.00	0.00	0.006	
9,534.38	90.00	269.83	3,900.00	112.00	-5,647.00	0.00	0.00	0.00	0.000	PBHL_Bunny 15H

MS Directional
Planning Report

Database:	EDM 5000.15 Conroe DB	**Local Co-ordinate Reference:**	Well Bunny 3-4 Fed Com 15H
Company:	Riley Permian Operating Co., LLC	**TVD Reference:**	WELL @ 3577.00usft (Akita 523)
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	WELL @ 3577.00usft (Akita 523)
Site:	Bunny (11, 12, 15, 17, 22, 24, 26)	**North Reference:**	Grid
Well:	Bunny 3-4 Fed Com 15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 1.50°/100' Build									
700.00	1.50	68.15	699.99	0.49	1.21	-1.22	1.50	1.50	0.00
800.00	3.00	68.15	799.91	1.95	4.86	-4.86	1.50	1.50	0.00
900.00	4.50	68.15	899.69	4.38	10.93	-10.94	1.50	1.50	0.00
1,000.00	6.00	68.15	999.27	7.79	19.42	-19.44	1.50	1.50	0.00
1,100.00	7.50	68.15	1,098.57	12.16	30.33	-30.37	1.50	1.50	0.00
1,200.00	9.00	68.15	1,197.54	17.50	43.65	-43.70	1.50	1.50	0.00
1,300.00	10.50	68.15	1,296.09	23.80	59.37	-59.44	1.50	1.50	0.00
1,348.37	11.23	68.15	1,343.59	27.20	67.83	-67.91	1.50	1.50	0.00
Begin 11.23° Tangent									
1,400.00	11.23	68.15	1,394.23	30.94	77.16	-77.25	0.00	0.00	0.00
1,500.00	11.23	68.15	1,492.32	38.18	95.23	-95.34	0.00	0.00	0.00
1,600.00	11.23	68.15	1,590.41	45.43	113.29	-113.43	0.00	0.00	0.00
1,700.00	11.23	68.15	1,688.49	52.67	131.36	-131.52	0.00	0.00	0.00
1,800.00	11.23	68.15	1,786.58	59.92	149.43	-149.61	0.00	0.00	0.00
1,900.00	11.23	68.15	1,884.67	67.16	167.50	-167.70	0.00	0.00	0.00
2,000.00	11.23	68.15	1,982.75	74.40	185.57	-185.79	0.00	0.00	0.00
2,100.00	11.23	68.15	2,080.84	81.65	203.64	-203.88	0.00	0.00	0.00
2,200.00	11.23	68.15	2,178.93	88.89	221.71	-221.97	0.00	0.00	0.00
2,300.00	11.23	68.15	2,277.02	96.14	239.78	-240.06	0.00	0.00	0.00
2,383.99	11.23	68.15	2,359.40	102.22	254.95	-255.25	0.00	0.00	0.00
Begin 1.50°/100' Drop									
2,400.00	10.99	68.15	2,375.11	103.37	257.81	-258.12	1.50	-1.50	0.00
2,500.00	9.49	68.15	2,473.51	109.98	274.31	-274.63	1.50	-1.50	0.00
2,600.00	7.99	68.15	2,572.35	115.64	288.40	-288.74	1.50	-1.50	0.00
2,700.00	6.49	68.15	2,671.55	120.32	300.09	-300.45	1.50	-1.50	0.00
2,800.00	4.99	68.15	2,771.05	124.04	309.37	-309.73	1.50	-1.50	0.00
2,900.00	3.49	68.15	2,870.77	126.79	316.22	-316.60	1.50	-1.50	0.00
3,000.00	1.99	68.15	2,970.66	128.57	320.65	-321.03	1.50	-1.50	0.00
3,100.00	0.49	68.15	3,070.63	129.37	322.65	-323.04	1.50	-1.50	0.00
3,132.36	0.00	0.00	3,102.99	129.42	322.78	-323.16	1.50	-1.50	-210.60
KOP, 8.00°/100' Build									
3,150.00	1.41	269.83	3,120.63	129.42	322.56	-322.95	8.00	8.00	-511.17
3,200.00	5.41	269.83	3,170.53	129.41	319.59	-319.97	8.00	8.00	0.00
3,250.00	9.41	269.83	3,220.10	129.39	313.14	-313.52	8.00	8.00	0.00
3,300.00	13.41	269.83	3,269.10	129.36	303.25	-303.63	8.00	8.00	0.00
3,350.00	17.41	269.83	3,317.30	129.32	289.97	-290.35	8.00	8.00	0.00
3,400.00	21.41	269.83	3,364.44	129.27	273.35	-273.73	8.00	8.00	0.00
3,450.00	25.41	269.83	3,410.32	129.21	253.49	-253.87	8.00	8.00	0.00
3,500.00	29.41	269.83	3,454.70	129.15	230.48	-230.86	8.00	8.00	0.00
3,550.00	33.41	269.83	3,497.36	129.07	204.42	-204.80	8.00	8.00	0.00
3,600.00	37.41	269.83	3,538.10	128.98	175.46	-175.84	8.00	8.00	0.00
3,650.00	41.41	269.83	3,576.72	128.89	143.72	-144.10	8.00	8.00	0.00
3,700.00	45.41	269.83	3,613.04	128.79	109.36	-109.75	8.00	8.00	0.00
3,750.00	49.41	269.83	3,646.87	128.68	72.56	-72.94	8.00	8.00	0.00
3,800.00	53.41	269.83	3,678.05	128.56	33.49	-33.87	8.00	8.00	0.00
3,850.00	57.41	269.83	3,706.43	128.44	-7.67	7.29	8.00	8.00	0.00

MS Directional
Planning Report

Database:	EDM 5000.15 Conroe DB	**Local Co-ordinate Reference:**	Well Bunny 3-4 Fed Com 15H
Company:	Riley Permian Operating Co., LLC	**TVD Reference:**	WELL @ 3577.00usft (Akita 523)
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	WELL @ 3577.00usft (Akita 523)
Site:	Bunny (11, 12, 15, 17, 22, 24, 26)	**North Reference:**	Grid
Well:	Bunny 3-4 Fed Com 15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
3,882.36	60.00	269.83	3,723.24	128.36	-35.32	34.94	8.00	8.00	0.00
Hold 60.00° Inc, 269.83° Azm									
3,900.00	60.00	269.83	3,732.06	128.31	-50.59	50.21	0.00	0.00	0.00
4,000.00	60.00	269.83	3,782.06	128.06	-137.20	136.82	0.00	0.00	0.00
4,082.36	60.00	269.83	3,823.24	127.84	-208.52	208.14	0.00	0.00	0.00
Begin 10.00°/100' Build									
4,100.00	61.76	269.83	3,831.82	127.80	-223.93	223.55	10.00	10.00	0.00
4,150.00	66.76	269.83	3,853.52	127.66	-268.96	268.58	10.00	10.00	0.00
4,200.00	71.76	269.83	3,871.22	127.53	-315.70	315.32	10.00	10.00	0.00
4,250.00	76.76	269.83	3,884.78	127.39	-363.81	363.43	10.00	10.00	0.00
4,300.00	81.76	269.83	3,894.09	127.24	-412.92	412.54	10.00	10.00	0.00
4,350.00	86.76	269.83	3,899.08	127.10	-462.66	462.28	10.00	10.00	0.00
4,382.36	90.00	269.83	3,900.00	127.00	-495.00	494.62	10.00	10.00	0.00
Begin 90.00° Lateral									
4,400.00	90.00	269.83	3,900.00	126.95	-512.64	512.26	0.00	0.00	0.00
4,500.00	90.00	269.83	3,900.00	126.66	-612.64	612.26	0.00	0.00	0.00
4,600.00	90.00	269.83	3,900.00	126.37	-712.64	712.26	0.00	0.00	0.00
4,700.00	90.00	269.83	3,900.00	126.08	-812.64	812.26	0.00	0.00	0.00
4,800.00	90.00	269.83	3,900.00	125.79	-912.64	912.26	0.00	0.00	0.00
4,900.00	90.00	269.83	3,900.00	125.49	-1,012.64	1,012.26	0.00	0.00	0.00
5,000.00	90.00	269.83	3,900.00	125.20	-1,112.64	1,112.26	0.00	0.00	0.00
5,100.00	90.00	269.83	3,900.00	124.91	-1,212.64	1,212.26	0.00	0.00	0.00
5,200.00	90.00	269.83	3,900.00	124.62	-1,312.64	1,312.26	0.00	0.00	0.00
5,300.00	90.00	269.83	3,900.00	124.33	-1,412.64	1,412.26	0.00	0.00	0.00
5,400.00	90.00	269.83	3,900.00	124.04	-1,512.63	1,512.26	0.00	0.00	0.00
5,500.00	90.00	269.83	3,900.00	123.75	-1,612.63	1,612.26	0.00	0.00	0.00
5,600.00	90.00	269.83	3,900.00	123.46	-1,712.63	1,712.26	0.00	0.00	0.00
5,700.00	90.00	269.83	3,900.00	123.17	-1,812.63	1,812.26	0.00	0.00	0.00
5,800.00	90.00	269.83	3,900.00	122.87	-1,912.63	1,912.26	0.00	0.00	0.00
5,900.00	90.00	269.83	3,900.00	122.58	-2,012.63	2,012.26	0.00	0.00	0.00
6,000.00	90.00	269.83	3,900.00	122.29	-2,112.63	2,112.26	0.00	0.00	0.00
6,100.00	90.00	269.83	3,900.00	122.00	-2,212.63	2,212.26	0.00	0.00	0.00
6,200.00	90.00	269.83	3,900.00	121.71	-2,312.63	2,312.26	0.00	0.00	0.00
6,300.00	90.00	269.83	3,900.00	121.42	-2,412.63	2,412.26	0.00	0.00	0.00
6,400.00	90.00	269.83	3,900.00	121.13	-2,512.63	2,512.26	0.00	0.00	0.00
6,500.00	90.00	269.83	3,900.00	120.84	-2,612.63	2,612.26	0.00	0.00	0.00
6,600.00	90.00	269.83	3,900.00	120.54	-2,712.63	2,712.26	0.00	0.00	0.00
6,700.00	90.00	269.83	3,900.00	120.25	-2,812.63	2,812.26	0.00	0.00	0.00
6,800.00	90.00	269.83	3,900.00	119.96	-2,912.63	2,912.26	0.00	0.00	0.00
6,900.00	90.00	269.83	3,900.00	119.67	-3,012.63	3,012.26	0.00	0.00	0.00
7,000.00	90.00	269.83	3,900.00	119.38	-3,112.63	3,112.26	0.00	0.00	0.00
7,100.00	90.00	269.83	3,900.00	119.09	-3,212.63	3,212.26	0.00	0.00	0.00
7,200.00	90.00	269.83	3,900.00	118.80	-3,312.63	3,312.26	0.00	0.00	0.00
7,300.00	90.00	269.83	3,900.00	118.51	-3,412.63	3,412.26	0.00	0.00	0.00
7,400.00	90.00	269.83	3,900.00	118.22	-3,512.63	3,512.26	0.00	0.00	0.00
7,500.00	90.00	269.83	3,900.00	117.92	-3,612.63	3,612.26	0.00	0.00	0.00
7,600.00	90.00	269.83	3,900.00	117.63	-3,712.63	3,712.26	0.00	0.00	0.00
7,700.00	90.00	269.83	3,900.00	117.34	-3,812.63	3,812.26	0.00	0.00	0.00
7,800.00	90.00	269.83	3,900.00	117.05	-3,912.62	3,912.26	0.00	0.00	0.00
7,900.00	90.00	269.83	3,900.00	116.76	-4,012.62	4,012.26	0.00	0.00	0.00
8,000.00	90.00	269.83	3,900.00	116.47	-4,112.62	4,112.26	0.00	0.00	0.00
8,100.00	90.00	269.83	3,900.00	116.18	-4,212.62	4,212.26	0.00	0.00	0.00
8,200.00	90.00	269.83	3,900.00	115.89	-4,312.62	4,312.26	0.00	0.00	0.00

MS Directional
Planning Report

Database:	EDM 5000.15 Conroe DB	**Local Co-ordinate Reference:**	Well Bunny 3-4 Fed Com 15H
Company:	Riley Permian Operating Co., LLC	**TVD Reference:**	WELL @ 3577.00usft (Akita 523)
Project:	Eddy County, New Mexico (NAD 83)	**MD Reference:**	WELL @ 3577.00usft (Akita 523)
Site:	Bunny (11, 12, 15, 17, 22, 24, 26)	**North Reference:**	Grid
Well:	Bunny 3-4 Fed Com 15H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
8,300.00	90.00	269.83	3,900.00	115.59	-4,412.62	4,412.26	0.00	0.00	0.00
8,400.00	90.00	269.83	3,900.00	115.30	-4,512.62	4,512.26	0.00	0.00	0.00
8,500.00	90.00	269.83	3,900.00	115.01	-4,612.62	4,612.26	0.00	0.00	0.00
8,600.00	90.00	269.83	3,900.00	114.72	-4,712.62	4,712.26	0.00	0.00	0.00
8,700.00	90.00	269.83	3,900.00	114.43	-4,812.62	4,812.26	0.00	0.00	0.00
8,800.00	90.00	269.83	3,900.00	114.14	-4,912.62	4,912.26	0.00	0.00	0.00
8,900.00	90.00	269.83	3,900.00	113.85	-5,012.62	5,012.26	0.00	0.00	0.00
9,000.00	90.00	269.83	3,900.00	113.56	-5,112.62	5,112.26	0.00	0.00	0.00
9,100.00	90.00	269.83	3,900.00	113.26	-5,212.62	5,212.26	0.00	0.00	0.00
9,200.00	90.00	269.83	3,900.00	112.97	-5,312.62	5,312.26	0.00	0.00	0.00
9,300.00	90.00	269.83	3,900.00	112.68	-5,412.62	5,412.26	0.00	0.00	0.00
9,400.00	90.00	269.83	3,900.00	112.39	-5,512.62	5,512.26	0.00	0.00	0.00
9,500.00	90.00	269.83	3,900.00	112.10	-5,612.62	5,612.26	0.00	0.00	0.00
9,534.38	90.00	269.83	3,900.00	112.00	-5,647.00	5,646.64	0.00	0.00	0.00
PBHL									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_Bunny 15H - plan hits target center - Point	0.00	0.00	3,900.00	112.00	-5,647.00	645,010.00	554,045.00	32° 46' 23.374 N	104° 17' 31.161 W
FTP_Bunny 15H - plan hits target center - Point	0.00	0.00	3,900.00	127.00	-495.00	645,025.00	559,197.00	32° 46' 23.499 N	104° 16' 30.817 W
Fed Perf. Point_Bunn - plan misses target center by 0.67usft at 6899.37usft MD (3900.00 TVD, 119.67 N, -3012.00 E) - Point	0.00	0.00	3,900.00	119.00	-3,012.00	645,017.00	556,680.00	32° 46' 23.432 N	104° 17' 0.298 W
Lower most Perf. Bur - plan misses target center by 0.26usft at 9444.38usft MD (3900.00 TVD, 112.26 N, -5557.00 E) - Point	0.00	0.00	3,900.00	112.00	-5,557.00	645,010.00	554,135.00	32° 46' 23.374 N	104° 17' 30.107 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
600.00	600.00	0.00	0.00	KOP, 1.50°/100' Build
1,348.37	1,343.59	27.20	67.83	Begin 11.23° Tangent
2,383.99	2,359.40	102.22	254.95	Begin 1.50°/100' Drop
3,132.36	3,102.99	129.42	322.78	KOP, 8.00°/100' Build
3,882.36	3,723.24	128.36	-35.32	Hold 60.00° Inc, 269.83° Azm
4,082.36	3,823.24	127.84	-208.52	Begin 10.00°/100' Build
4,382.36	3,900.00	127.00	-495.00	Begin 90.00° Lateral
9,534.38	3,900.00	112.00	-5,647.00	PBHL

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	RILEY PERMIAN OPERATING COMPANY LLC
WELL NAME & NO.:	BUNNY 3-4 FED COM 15H
LOCATION:	Section 3, T.18 S., R.27 E., NMP
COUNTY:	Eddy County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	( ) Low	( ) Medium	(•) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Wellhead Variance	( ) Diverter		
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[ ] Contingency Cement Squeeze	[ ] EchoMeter	[ ] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[ ] Break Testing	[ ] Offline Cementing	[ ] Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **375 feet** (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.

    a. If cement does not circulate to the surface, the appropriate BLM office shall

 Approval Date: 05/08/2025

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 minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

❖ In High Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **7 X 5.5 inch** production casing is:

- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
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. 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.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR part 3170 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR part 3170.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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
(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
        i. Notify the BLM when moving in and removing the Spudder Rig.
        ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
        iii. BOP/BOPE test to be conducted per **43 CFR 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

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

of both lead and tail cement, 2) until cement has been in place at least 8 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-Q 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 3172**.
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:
    i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    ii. 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.
    iii. Manufacturer representative shall install the test plug for the initial BOP test.
    iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    v. 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.
    i. 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).
    ii. 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.)

iii. 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 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

iv. 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.

v. The results of the test shall be reported to the appropriate BLM office.

vi. 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.

vii. 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.

viii. 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 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.

JS 5/8/2025

DRILLING PROGRAM

Riley Exploration-Permian, LLC

Bunny North, Mid, and South Pads

Bunny North Pad Well Names: Bunny 3-4 Fed Com 11H, Bunny 3-4 Fed Com 22H

Lot L Section 3, Township 18 South, Range 27 East, 6th P.M.

Bunny Mid Pad Well Names: Bunny 3-4 Fed Com 12H, Bunny 3-4 Fed Com 15H, Bunny 3-4 Fed Com 26H

Lot M Section 3, Township 18 South, Range 27 East, 6th P.M.

Bunny South Pad Well Names: Bunny 3-4 Fed Com 17H, Bunny 3-4 Fed Com 24H

Lot M Section 3, Township 18 South, Range 27 East, 6th P.M.

Eddy County, New Mexico

Lease Number: NMLC 0061783B, NMLC 0061783A, NMNM 007717

Parcel 4-160-103-263-254

Owner: Bureau of Land Management

Land code: Exempt Agricultural Land

1. Geologic Name of Surface Formation

Quaternary

Estimated Tops of Important Geologic Markers

Formation	Elevation	TVD	TMD	Lithology	Mineral Resources	Producing Formation?
Water Sand		150			Fresh Water	No
Queen		694			Oil/Gas	No
Grayburg		1029			Oil/Gas	No
San Andreas		1294			Oil/Gas	No
Glorieta		2675			Oil/Gas	No
Yeso/Paddock		2840			Oil/Gas	

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to 400' and circulating cement back to surface will protect the surface fresh water sand. Salt section and shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing 5 ½" production casing, sufficient cement will be pumped to circulate back to surface.

2. Blowout Prevention

Pressure Rating (PSI): 2M **Rating Depth:** 4200

Equipment
The blowout preventer equipment (BOP) shown in Exhibit 10 will consist of a double ram-type (3000 psi WP) minimum preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with

blind rams on top of 5" drill pipe rams on bottom. The 13-5/8" BOP will be nippled up on the 13-3/8" surface casing and tested by a 3rd party to 2000 psi used continuously until TD is reached.

Variance Requested? Yes.
A variance is requested to use a Multi Bowl Wellhead System and Flex Hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test will be kept on the rig.

Testing
All BOP's and accessory equipment will be tested to 2000 psi before drilling out of intermediate casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit 10) will include a Kelly cock and floor safety valve and choke lines and choke manifold with a minimum 2000 psi WP rating.

3. Casing Program:

Casing	Hole Size	Depth		Casing						Safety Factors					
		MD	TVD	OD	Wt.	Grade	Connection	Cond.	Tapered	Collapse	Type	Burst	Type	Tension	Type
Surface	17 1/2	400'	400'	13.375	48#	J55	STC	New	No	3.8671	Dry	12.3850	Dry	3.7166	BW + 100k
Intermediate	12 1/4	1,350'	1,345'	9.625	36#	J55	LTC	New	No	2.8211	Dry	4.9159	Dry	3.2120	BW + 100k
Production	8 3/4	4,082'	3,823'	7.000	32#	HCL-80	BTC	New	Yes	5.6864	Dry	4.6257	Dry	2.4346	BW + 100k
Production	8 3/4	9,534'	3,900'	5.500	20#	HCL-80	BTC	New		5.6974	Dry	4.8184	Dry	1.5229	BW + 100k

4. Cement Program:

Surface Cement		
Tail		
Cement	**Class C HSR**	100%
Accelerator	**A-2**	0.250% BWOB
Foam Preventer	**FP-28L**	0.003 gal/sk
Anti Static Additive	**Static Free**	0.005 lb/sk
Weight (ppg)		14.8
Yield (ft3/sk)		1.33
Sacks		418
Cement Volume (ft3)		555.72
Water Required (gal/sk)		6.30
Excess		100%
Slurry Top (ft)		Surface

Intermediate Cement					
Lead			Tail		
Cement	**Class C HSR**	65%	Cement	**Class C HSR**	100%
Cement - Extender	**Fly Ash (OTX 1)**	35%	Accelerator	**A-2**	0.250% BWOB
Accelerator	**A-2**	1.000 %BWOB	Fluid Loss	**FL-66**	0.200% BWOB
Accelerator	**A-5**	3.000 % BWOW	Foam Preventer	**FP-28L**	0.005 gal/sk
Extender - Viscosifier	**Bentonite**	3.000% BWOB			
Foam Preventer	**FP-28L**	0.005 gal/sk			
Retarder	**R-7C**	0.100% BWOB			
Weight (ppg)		12.8	Weight (ppg)		14.8
Yield (ft3/sk)		1.65	Yield (ft3/sk)		1.33
Sacks		242	Sacks		129
Cement Volume (ft3)		399.53	Cement Volume (ft3)		171.24
Water Required (gal/sk)		8.40	Water Required (gal/sk)		6.30
Excess		35%	Excess		35%
Slurry Top (ft)		Surface	Slurry Top (ft)		945

Production Cement					
Lead			Tail		
Cement	**Class C HSR**	65%	Cement	**Class C HSR**	60%
Cement - Extender	**Fly Ash (OTX 1)**	35%	Cement - Extender	**Fly Ash (OTX-1)**	35%
Accelerator	**A-30**	2.000% BWOB	Cement - Extender	**AEXT-1012**	5%
Thixotropic	**ATHX-1102**	0.900% BWOB	Viscosifier	**ASA-301**	0.100 % BWOB
Extender - Viscosifier	**Bentonite**	3.000% BWOB	Bond Enhancer	**BA-90**	0.500% BWOB
Fluid Loss	**FL-66**	0.200% BWOB	Bond Enhancer	**EC-1**	1.000% BWOB
Foam Preventer	**FP-28L**	0.005 gal/sk	Dispersant	**CD-32A**	0.100% BWOB
Retarder	**R-7C**	0.150% BWOB	Fluid Loss	**FL-66**	0.600% BWOB
Anti-Static	**Static Free**	0.005% BWOB	Foam Preventer	**FP-28L**	0.005 gal/sk
			Retarder	**R-7C**	0.400% BWOB
Weight (ppg)		11.5	Weight (ppg)		13.7
Yield (ft3/sk)		2.49	Yield (ft3/sk)		1.29
Sacks		192	Sacks		1789
Cement Volume (ft3)		478.81	Cement Volume (ft3)		2308.38
Water Required (gal/sk)		14.60	Water Required (gal/sk)		5.80
Excess		40%	Excess		40%
Slurry Top (ft)		Surface	Slurry Top (ft)		2275

5. **Types and Characteristics of the Proposed Mud System:**

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

A. Kelly cock will be kept in the drill string at all times.
B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

Describe what will be on location to control well or mitigate other conditions:

The well will be drilled to TD with a combination of fresh and cut brine mud system. The applicable depths and properties of this system are as follows:

Surface							
Depth (MD)	Type	MW (lb/ft3)	Gel Strength (#/100ft3)	PV (cP)	Salinity (ppm)	pH	Filtrate
0' - 400'	Freshwater	62.8 - 68.8	8-15	8-10	<2000	8.0-9.0	NC
Intermediate							
Depth (MD)	**Type**	**MW (lb/ft3)**	**Gel Strength (#/100ft3)**	**PV (cP)**	**Salinity (ppm)**	**pH**	**Filtrate**
400' - 1,350'	Brine	74.8 - 76.3	NA	NA	120,000-170,000	9.0-10.5	NC
Production							
Depth (MD)	**Type**	**MW (lb/ft3)**	**Gel Strength (#/100ft3)**	**PV (cP)**	**Salinity (ppm)**	**pH**	**Filtrate**
1,350' - TD	Cut Brine	65.8 - 68.8	NA	NA	30,000-60,000	9.0-10.5	NC

Describe the mud monitoring system utilized:

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

6. Logging, Testing and Coring Program:

A. The logging program will consist of GR from intermediate shoe to TD
B. Drill Stem test is not anticipated.
C. No conventional coring is anticipated.
D. Further testing procedures will be determined at TD.
E. Mud log will be taken from surface casing point to TD

7. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is 1866 psig (0.052*3900'TVD*9.2ppg) less than 2900 Bottom Hole Pressure.
Low levels of Hydrogen sulfide have been monitors in producing wells in the area, so H2S may be present while drilling of the well; a plan is attached to the Drilling program. No major loss of circulation zones has been reported in offsetting wells.

8. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is May 1, 2024. Once commenced, the drilling operation should be finished in approximately 20 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

NOTES REGARDING THE BLOWOUT PREVENTERS

Bunny 3-4 Fed Com 15H

Eddy County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.

2. Wear ring to be properly installed in head.

3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.

4. All fittings to be flanged.

5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.

6. All choke and fill lines to be securely anchored especially ends of choke lines.

7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

8. Kelly cock on Kelly.

9. Extension wrenches and hands wheels to be properly installed.

10. Blow out preventer control to be located as close to driller's position as feasible.

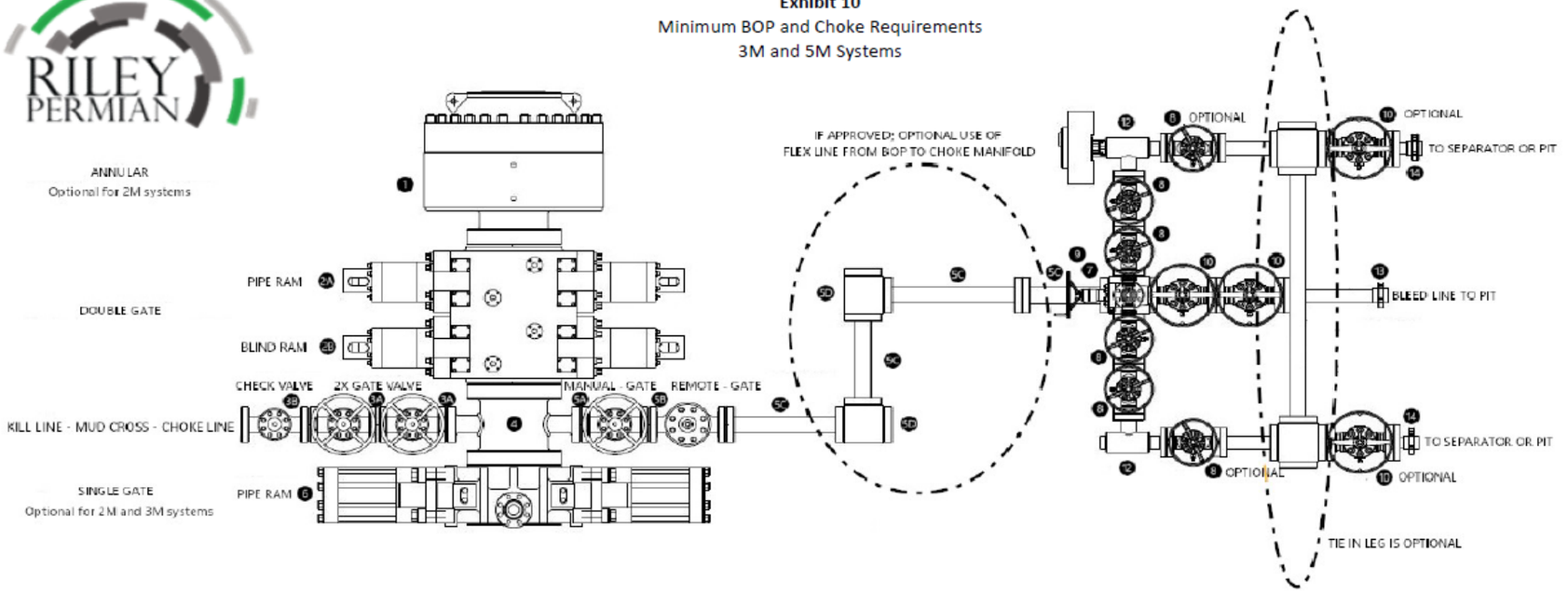
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

Riley Permian

Exhibit 10

Minimum BOP and Choke Requirements

3M and 5M Systems



BOP - Minimum Requirements

	Description		ID (in.)	Nom. OD (in.)	Optional	Note
1	Annular				Yes - 2M	
2A	Double Gate	Pipe Ram	3 1/8		No	
2B		Blind Ram				
3A	Kill Line	Gate	2		No	
3A		Gate				
3B		Check Valve				
		Line		2		
4	Mud Cross		2 1/16		No	Kill Line - 2" min. Choke Line - 3" min.
5A	Choke Line	Gate - Manual (2)	3 1/8		No	
5B		Gate - Remote (2)				
5C		Line		3	No	
5D		Targeted Tee			No	
6	Single Gate - Pipe Ram				Yes - 2M and 3M	

(1) Only one required in 2M system
(2) Choke line valve order is interchangable
(3) Remote operated hydraulic choke required on 5M and 10M systems

Choke Manifold - Minimum Requirements

			3000 MWP			5000 MWP			10000 MWP		
	Description		ID (in.)	Nominal OD (in. unless otherwise noted)	Rating (psi)	ID (in.)	Nominal OD (in. unless otherwise noted)	Rating (psi)	ID (in.)	Nominal OD (in. unless otherwise noted)	Rating (psi)
7	Cross - 3" x 3" x 3" x 2"				3,000			5,000			10,000
8	Valve	Gate (2)	2 1/16		3,000	2 1/16		5,000	3 1/8		10,000
		Plug									
9	Pressure Gauge				3,000			5,000			10,000
10	Valve	Gate (2)	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
		Plug									
11	Remote Operated Adjustable Choke (3)		2 1/16		3,000			5,000			10,000
12	Manual Adjustable Choke		2 1/16		3,000			5,000			10,000
13	Line			3	3,000		3	5,000		3	10,000
14	Line			2	3,000		2	5,000		2	10,000
15	Gas Separator (4)			2' x 5'			2' x 5'			2' x 5'	

(1) Only one required in 2M system
(2) Gate valves only to be used for 10M system
(3) Remote chokes are required for 5M and 10M systems
(4) Gas separator is optional for 2M and 3M systems

Riley Permian Operating Company, LLC

Onshore Order #6
Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards an characteristics of hydrogen sulfide (H2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H2S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H2S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. **The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.**

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H2S.

1. Well Control Equipment:

A. Flare line.
B. Choke manifold.
C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. Protective equipment for essential personnel:

A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

A. 3x portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

4. Visual warning systems:

A. Wind direction indicators as shown on well site diagram (Exhibit #8).
B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

A. Radio communications in company vehicles including cellular telephone and 2-way radio.
B. Land line (telephone) communication at Office.

8. Well testing:

A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.

B. There will be no drill stem testing.

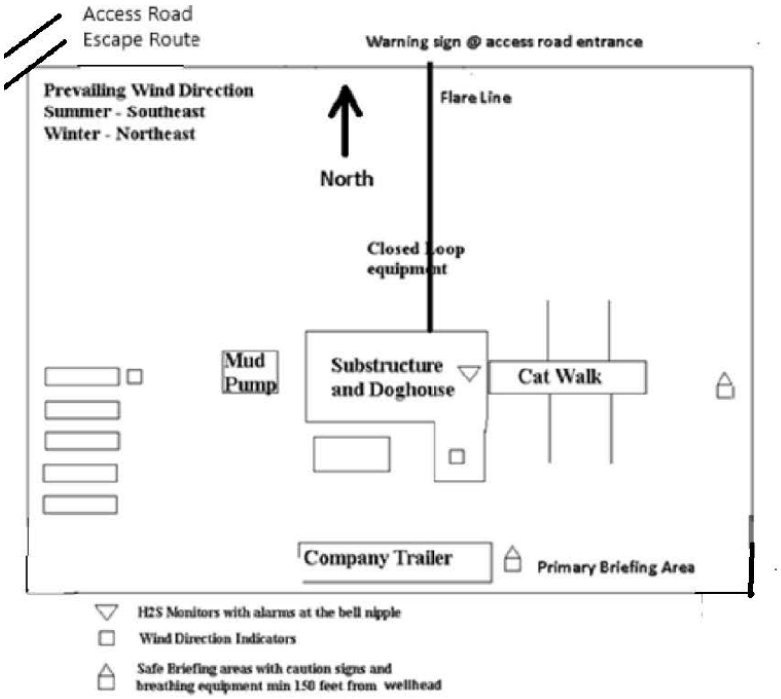
Exhibit #7

WARNING

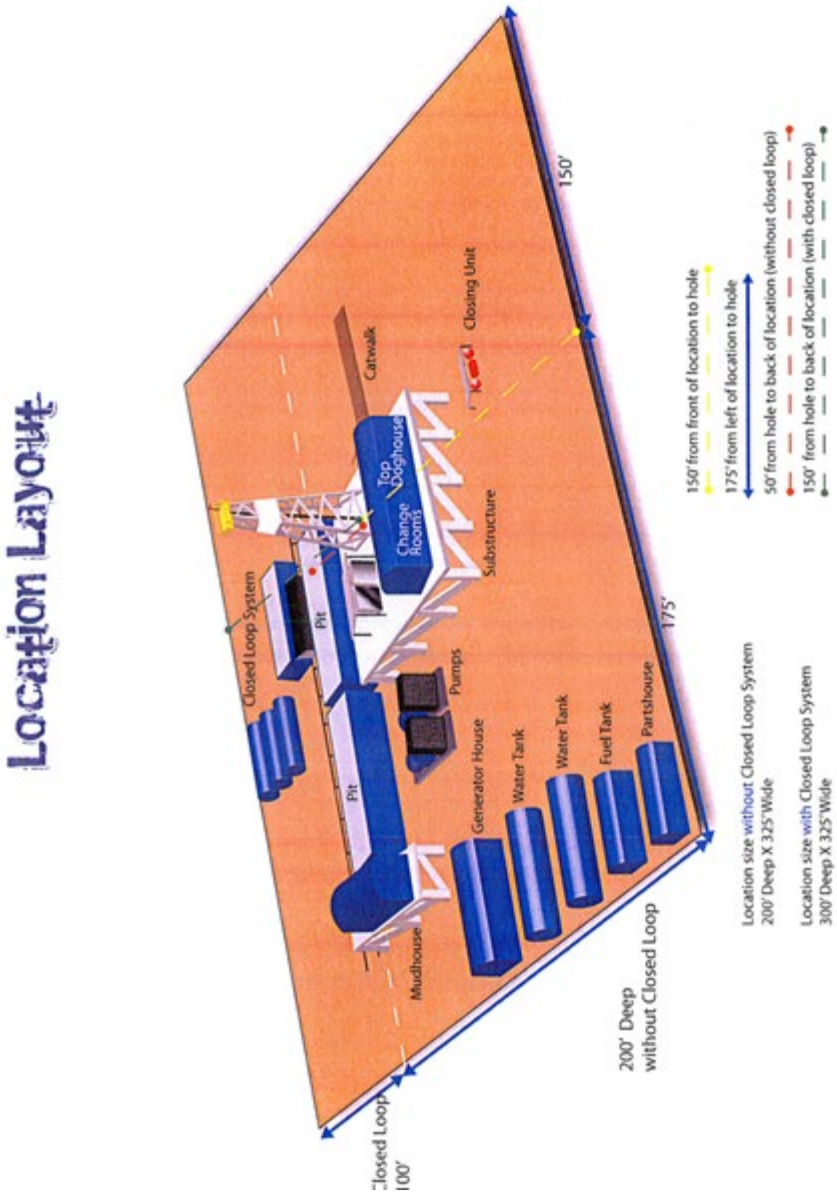
YOU ARE ENTERING AN H2S AREA
AUTHORIZED PERSONNEL ONLY

1. BEARDS OR CONTACT LENSES NOT ALLOWED
2. HARD HATS REQUIRED
3. SMOKING IN DESIGNATED AREAS ONLY
4. BE WIND CONSCIOUS AT ALL TIMES
5. CHECK WITH RILEY PERMIAN OPERATING COMPANY MAN AT OFFICE

RILEY PERMIAN OPERATING COMPANY, LLC
1-405-415-8699



DRILLING LOCATION H2S SAFTY EQUIPMENT
Exhibit # 8



EMERGENCY CONTACT LIST – EDDY COUNTY

Artesia	Cellular	Office
Spence Laird	575-703-7382	405-420-8415
Steve Forister	505-400-4571	405-666-0113
Vince Salvo	281-386-8417	
Richard McKay	432-934-7586	
Justin Sappington	361-550-0494	

Agency Call List (575)

Artesia

State Police……..746-2703

City Police……..746-2703

Sheriff's Office……746-9888

Ambulance……..911

Fire Department……..746-2701

LEPC (Local Emergency Planning Committee…….746-2122

NMOCD……..748-1283

Carlsbad

State Police……..885-3137

City Police……..885-2111

Sheriff's Office……887-7551

Ambulance……..911

Fire Department……..885-2111

LEPC (Local Emergency Planning Committee…….887-3798

Bureau of Land Management……..887-6544

New Mexico Emergency Response Commission……(505)476-9690

24 Hour……(505)827-9126

Natonal Emergency Response Center (Washington)……(800)424-8802

Emergency Services

Boots & Coots IWC……1-800-256-9688 or (281)931-8884

Cudd pressure Control……(915)699-0139 or (915)563-3356

Halliburton……..746-2757

Par Five……..748-9539

Flight For Life-Lubbock, TX……(806)743-9911

Aerocare-Lubbock, TX……..(806)747-8923

Med Flight Air Amb-Albuquerque, NM…….(505)842-4433

Lifeguard Air Med Svc. Albuquerque, NM……(505)272-3115

H3-8915

5/16/2022 7:15:04 AM

TEST REPORT

CUSTOMER

Company: [redacted]

Production description:

Sales order #: 523868

Customer reference:

TEST INFORMATION

Test procedure:	GTS-04-052	
Test pressure:	7500.00	psi
Test pressure hold:	3600.00	sec
Work pressure:	5000.00	psi
Work pressure hold:	900.00	sec
Length difference:	0.00	%
Length difference:	0.00	inch

Visual check:

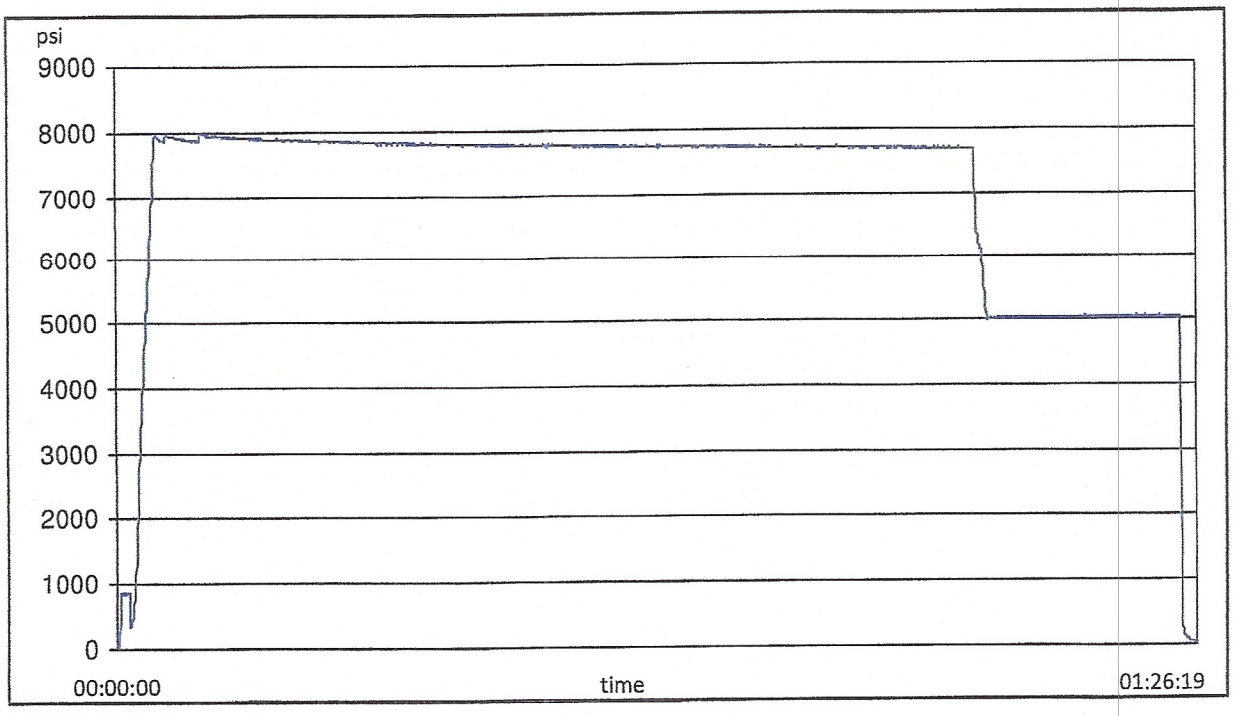
Pressure test result: PASS

Length measurement result:

Test operator: Martin

TEST OBJECT

Serial number:	H3-051622-1
Lot number:	L42089010720
Description:	
Hose ID:	3.5 5K MS C&K
Part number:	47741108
Fitting 1:	3.5 x 3 1/8 5k
Part number:	
Description:	3.5 x 3 1/8 5k
Fitting 2:	3.5 x 3 1/8 5k
Part number:	
Description:	3.5 x 3 1/8 5k
Length:	23 feet



Filename: D:\Certificates\Report_051622-H3-051622-1.pdf

BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr. Suite 190
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/oilandgas

PRESSURE TEST CERTIFICATE

Customer:	[redacted]	Test Date:	5/16/2022
Customer Ref.:	643541	Hose Serial No.:	H3-051622-1
Invoice No.:	523868	Created By:	Cristian Rivera

Product Description:	3.5" X 23 FT GATES FIRE RATED CHOKE & KILL HOSE ASSEMBLY C/W 3 1/8" 5K FIXED X FLOAT H2S SUITED FLANGES WITH RED FIRE SLEEVE OVER EACH END SUPPLIED WITH LIFT EYE CLAMPS ATTACHED

End Fitting 1:	3 1/8" 5K FIXED	End Fitting 2:	3 1/8" 5K FLOAT
Oracle Star No.:	68503550-10095959	Assembly Code:	L42089 010720
CUSTOMER P/N:	FR3.523.0CK3185KFIXXFLTFLG RFS LE	Test Pressure:	7,500 PSI.
		Working Pressure:	5,000 PSI.

Gates Engineering & Services North America certifies that:

The following hose assembly has successfully passed all pressure testing requirements set forth in Gates specifications: GTS-04-052 (for 5K assemblies) or GTS-04-053 (10K assemblies) or GTS-04-048 (15K assemblies), which include reference to Specification API 16C (3rd Edition); sections 7.4.1, 7.4.5, and 10.7.7. A test graph will accompany this test certificate to illustrate conformity to test requirements. This hose assembly was pressure tested using equipment and instrumentation that has been calibrated in accordance with the requirements set-forth in the GESNA management system.

Quality:	QUALITY	Production:	PRODUCTION
Date :	5/16/2022	Date :	5/16/2022
Signature :		Signature :	

F-PRD-005B

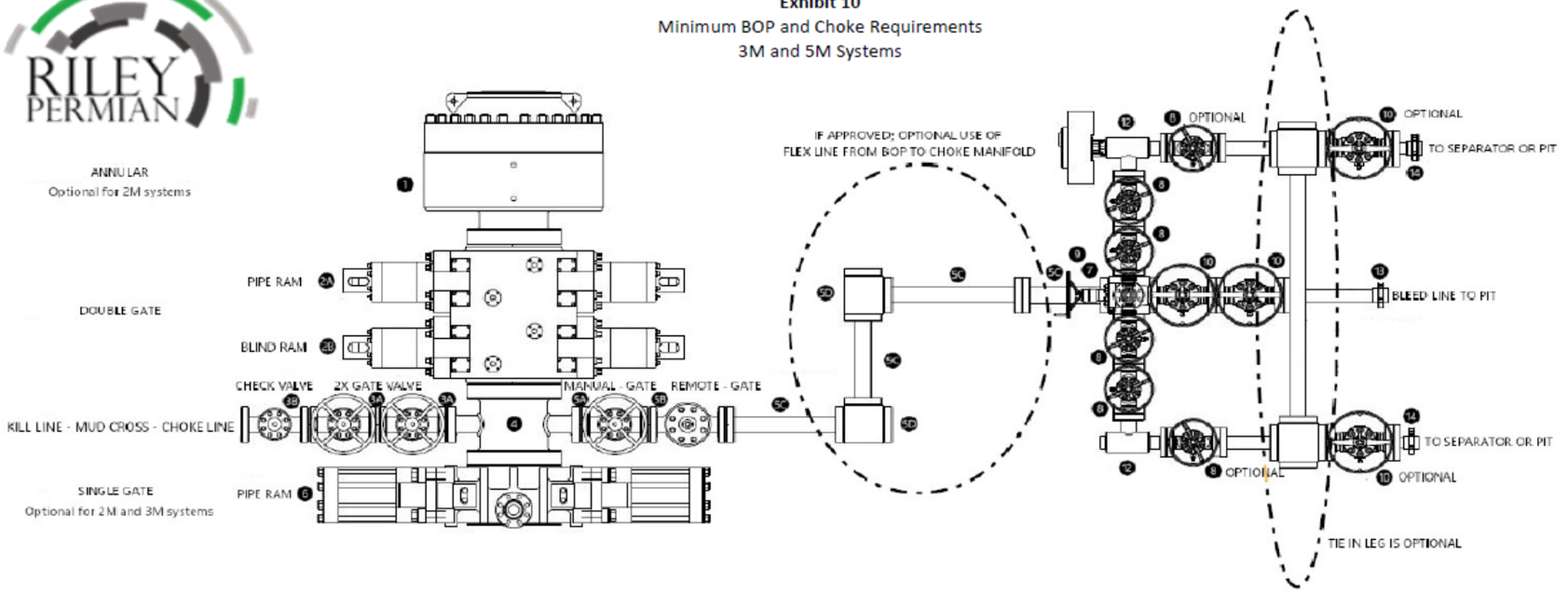
Revision 7_03012022

Riley Permian

Exhibit 10

Minimum BOP and Choke Requirements

3M and 5M Systems



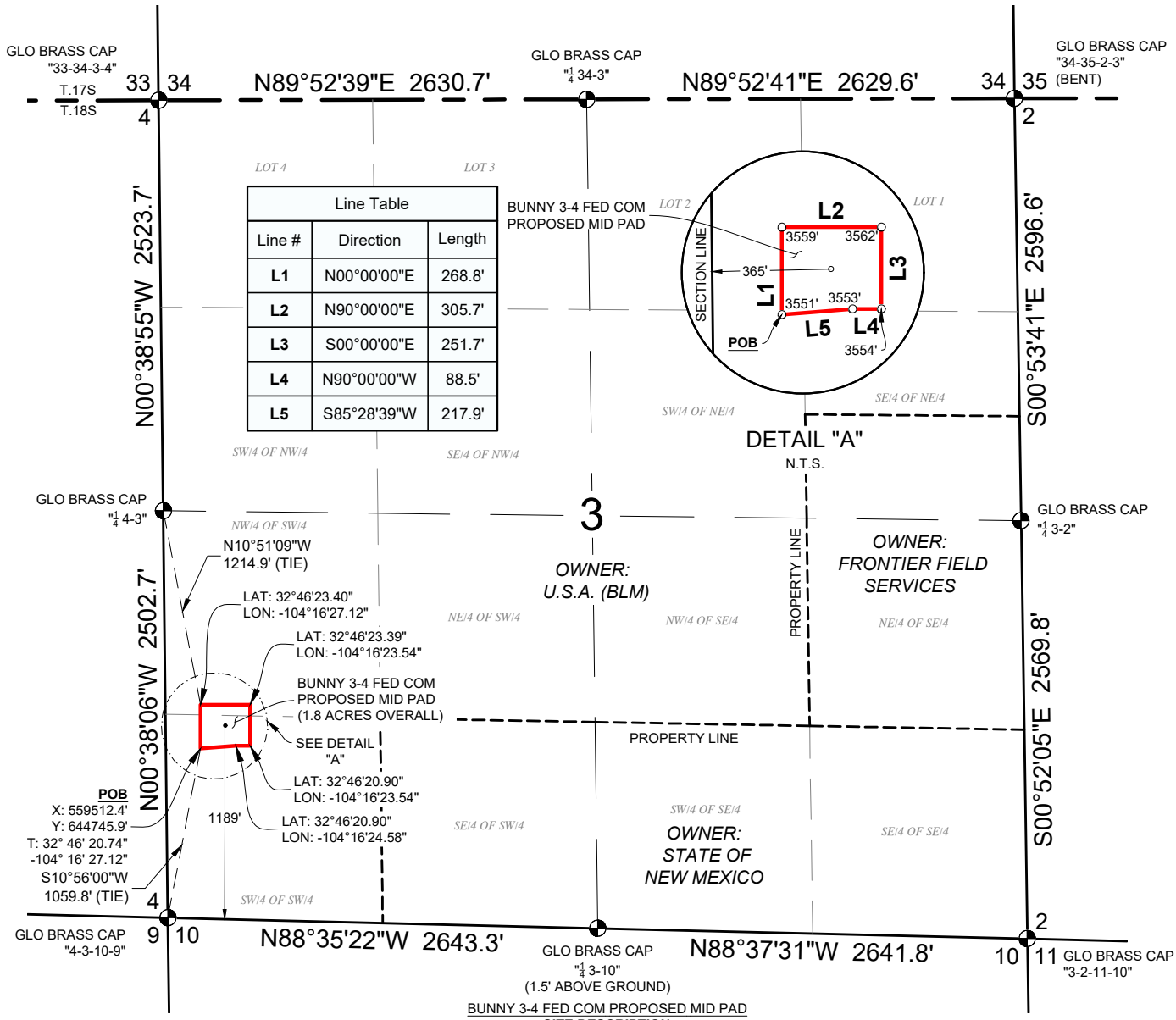
BOP - Minimum Requirements						
	Description		ID (in.)	Nom. OD (in.)	Optional	Note
1	Annular				Yes - 2M	
2A	Double Gate	Pipe Ram	3 1/8		No	
2B		Blind Ram				
3A	Kill Line	Gate	2		No	
3A		Gate				
3B		Check Valve				
		Line		2		
4	Mud Cross		2 1/16		No	Kill Line - 2" min. Choke Line - 3" min.
5A	Choke Line	Gate - Manual (2)	3 1/8		No	
5B		Gate - Remote (2)				
5C		Line		3	No	
5D		Targeted Tee			No	
6	Single Gate - Pipe Ram				Yes - 2M and 3M	

(1) Only one required in 2M system
(2) Choke line valve order is interchangable
(3) Remote operated hydraulic choke required on 5M and 10M systems

Choke Manifold - Minimum Requirements											
			3000 MWP			5000 MWP			10000 MWP		
	Description		ID (in.)	Nominal OD (in. unless otherwise noted)	Rating (psi)	ID (in.)	Nominal OD (in. unless otherwise noted)	Rating (psi)	ID (in.)	Nominal OD (in. unless otherwise noted)	Rating (psi)
7	Cross - 3" x 3" x 3" x 2"				3,000			5,000			10,000
8	Valve	Gate (2)	2 1/16		3,000	2 1/16		5,000	3 1/8		10,000
		Plug									
9	Pressure Gauge				3,000			5,000			10,000
10	Valve	Gate (2)	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
		Plug									
11	Remote Operated Adjustable Choke (3)		2 1/16		3,000			5,000			10,000
12	Manual Adjustable Choke		2 1/16		3,000			5,000			10,000
13	Line			3	3,000		3	5,000		3	10,000
14	Line			2	3,000		2	5,000		2	10,000
15	Gas Separator (4)			2' x 5'			2' x 5'			2' x 5'	

(1) Only one required in 2M system
(2) Gate valves only to be used for 10M system
(3) Remote chokes are required for 5M and 10M systems
(4) Gas separator is optional for 2M and 3M systems

SECTION 3, TOWNSHIP 18 SOUTH, RANGE 27 EAST,
EDDY COUNTY, NEW MEXICO



Line Table		
Line #	Direction	Length
L1	N00°00'00"E	268.8'
L2	N90°00'00"E	305.7'
L3	S00°00'00"E	251.7'
L4	N90°00'00"W	88.5'
L5	S85°28'39"W	217.9'

BUNNY 3-4 FED COM PROPOSED MID PAD
SITE DESCRIPTION

A PROPOSED SITE SITUATED IN THE WEST HALF OF THE SOUTHWEST QUARTER OF SECTION 3, TOWNSHIP 18 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT FROM WHICH A GLO BRASS CAP FOUND AND ACCEPTED AS THE SOUTHWEST CORNER OF SAID SECTION 3 BEARS S10°56'00"W, 1059.8 FEET, SAID POINT BEING THE SOUTHWEST CORNER HEREOF;

THENCE THE FOLLOWING FIVE (5) COURSES AND DISTANCES:
N00°00'00"E, 268.8 FEET;
N90°00'00"E, 305.7 FEET;
S00°00'00"E, 251.7 FEET;
N90°00'00"W, 88.5 FEET:
S85°28'39"W, 217.9 FEET TO THE **POINT OF BEGINNING**, CONTAINING 1.8 ACRES.

NOTES:
- BEARINGS, COORDINATES, AND DISTANCES SHOWN HEREON ARE BASED ON THE NEW MEXICO STATE PLANE COORDINATE SYSTEM, EAST ZONE, NAD 83- 2011 (EPOCH 2010) FRAMEWORK, AS DERIVED BY OPUS SOLUTION. THE ELEVATIONS SHOWN HEREON AREA BASED ON NAVD 88.
- LAND OWNERSHIP INFORMATION REFLECTED HEREON WAS PROVIDED BY CLIENT AND/OR OBTAINED FROM PUBLIC DOMAIN DATA, NO INDEPENDENT OWNERSHIP SEARCH WAS PERFORMED BY ASCENT

PROPOSED MID PAD
POINT FOR BEGIN/END OR ANGLE POINT
FOUND MONUMENT AS SHOWN

0 500' 1000'
SCALE: 1"= 1000'

N

TIM C. PAPPAS NEW MEXICO 21209 REGISTERED PROFESSIONAL SURVEYOR

I, TIM C. PAPPAS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 21209, DO HEREBY CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS AN EASEMENT PLAT OF A PROPOSED EASEMENT.

28 MAR 2024

TIM C. PAPPAS, N.M. P.L.S. **No.21209**

SURVEY DATE: 03/11/2024
JOB NO.: B24.REPX.0002

DRAFT: KS
SHEET: 1 OF 2

RILEY PERMIAN

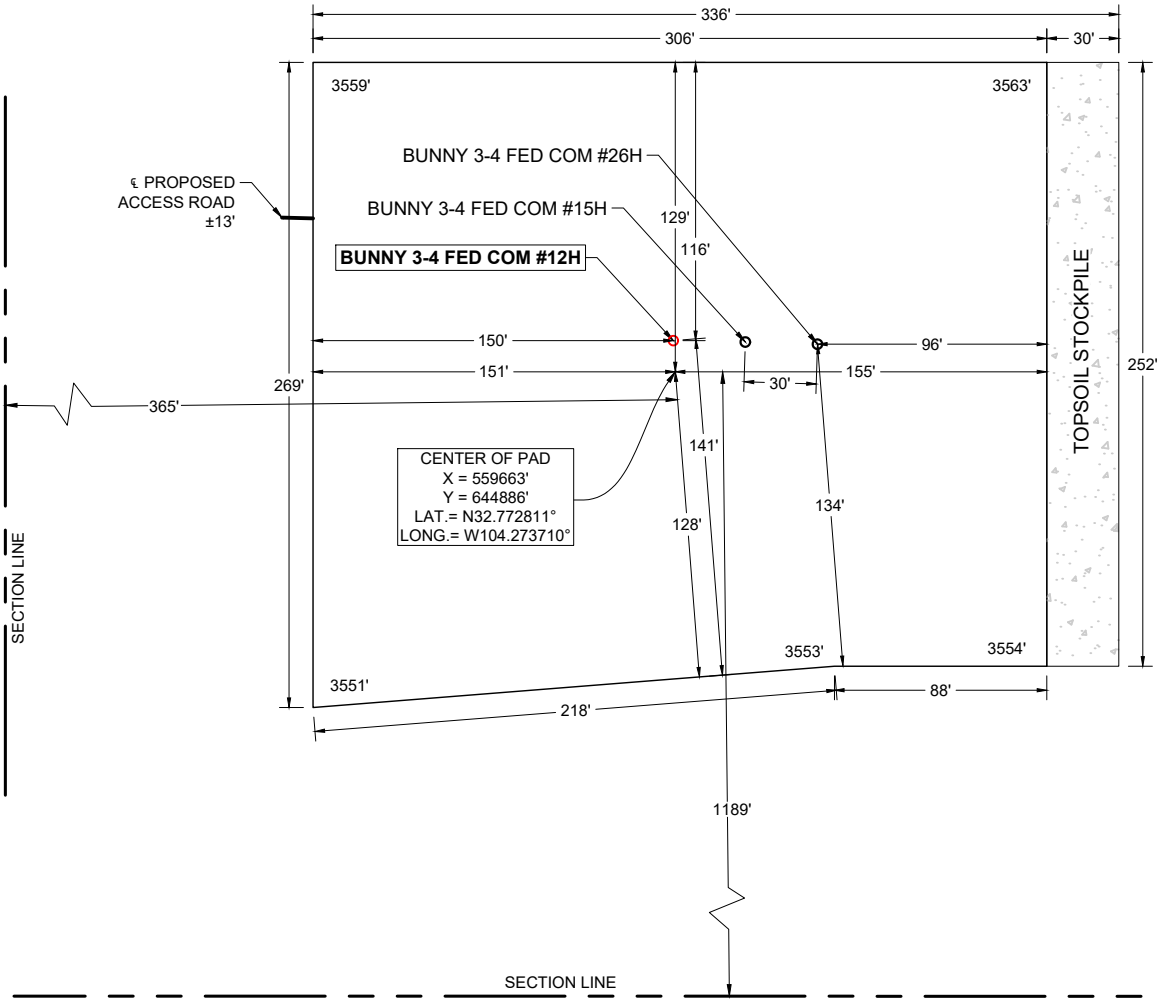
BUNNY 3-4 FED COM PROPOSED MID PAD
SEC. 3, T-18-S, R-27-E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

ASCENT GEOMATICS SOLUTIONS

PETROLEUM FIELD SERVICES, LLC
DBA: ASCENT GEOMATICS SOLUTIONS
8620 WOLFF CT.
WESTMINSTER, CO 80031
OFFICE: (303) 928-7128

PLAT: \AGS\FS\PROJECTS\REPX_ B24\0002\PROD\ROW_EXHIBIT\SITE\MID_PAD\BO_BUNNY_3-4_FED_COM_MID_PAD 3/22/24 11:18 AM Ksarmiento

EXHIBIT 5
PAD LAYOUT



N

0 40 80

SCALE: 1"= 80'

LEGEND

O = PROPOSED WELL

= PROPOSED ACCESS ROAD

= SECTION LINE

SHEET 2 OF 2

LATITUDE: N 32.772846°
LONGITUDE: W 104.273713°
SURFACE HOLE: 364' FWL & 1202' FSL
SURFACE HOLE ELEVATION: 3557'
CENTER OF PAD: 365' FWL & 1189' FSL

ASCENT GEOMATICS SOLUTIONS
8620 Wolff Court
Westminster, CO 80031
(303) 928-7128
www.ascentgeomatics.com

FIELD DATE:	PROJECT NO.:	SITE NAME:	REV.
03-11-2024	REPX__240002	BUNNY 3-4 FED COM #12H	REV. 0

DRAWING DATE: 03-19-2024

BY: KS CHECKED: CW

DISCLAIMER:
THIS PLOT DOES NOT REPRESENT A MONUMENTED LAND SURVEY AND SHOULD NOT BE RELIED UPON TO DETERMINE BOUNDARY LINES, PROPERTY OWNERSHIP OR OTHER PROPERTY INTERESTS.
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE FOLLOWING COORDINATE SYSTEM: NAD83 NEW MEXICO STATE PLANE, EAST ZONE, U.S.. SURVEY FEET.

SURFACE LOCATION:
SEC. 3, T18S, R27E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

PREPARED FOR:
RILEY PERMIAN

PLAT: P:\REPX__B240002\PROD\C102_PACKAGE\PADSITES\5-BUNNY_3-4_FED_COM_PADSITE_12H 3/27/24 3:48 PM Rhomesley

C-102	State of New Mexico	Revised July 9, 2024
Submit Electronically Via OCD Permitting	Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Submittal Type: ☒ Initial Submittal ☐ Amended Report ☐ As Drilled

Property Name and Well Number

BUNNY 3-4 FED COM 15H

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-57055	51120	RED LAKE; GLORIETA-YESO

Property Code	Property Name	Well Number
337398	**BUNNY 3-4 FED COM 15H**	**15H**

OGRID No.	Operator Name	Ground Level Elevation
372290	RILEY PERMIAN OPERATING COMPANY LLC	3557'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal — Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL or Lot No.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
M	3	18S	27E		1202 FSL	394 FWL	N 32.772845°	W 104.273615°	EDDY

Bottom Hole Location If Different From Surface

UL or Lot No.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
16	4	18S	27E		1320 FSL	10 FWL	N 32.773159°	W 104.291988	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidated Code
305.80	DEFINING	N/A	N	PENDING

Order Numbers: PENDING — Well Setbacks are under Common Ownership: ☐ Yes ☒ No

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
L	3	18S	27E		1339 FSL	718 FWL	N 32.773200°	W 104.272566°	EDDY

First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
13	4	18S	27E		1320 FSL	100 FEL	N 32.773194°	W 104.275228°	EDDY

Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
16	4	18S	27E		1320 FSL	100 FWL	N 32.773159°	W 104.291695°	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unity Type	Ground Floor Elevation
	☒ Horizontal ☐ Vertical	3582'

OPERATOR CERTIFICATION

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

If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Spence Laird — 7/24/2025

Signature — Date

Spence Laird

Print Name

spencelaird@rileypermian.com

E-mail Address

SURVEYORS CERTIFICATION

MITCHELL L. McDONALD — NEW MEXICO — 29821 — PROFESSIONAL SURVEYOR — 07/23/2025

Signature and Seal of Professional Surveyor — Date

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.

MITCHELL L. MCDONALD, N.M. P.L.S.

Certificate Number	Date of Survey
29821	MARCH 11, 2024

\\agsfs\projects\REPX__B240002\PROD\C102_Package\C102\0_Bunny_3_Fed_Com_C102_15H_R6.dwg CJOSEPH 7/23/2025 11:01 AM

Note: 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.

C-102

Submit Electronically
Via OCD Permitting

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

Revised July 9, 2024

Submittal Type:
- [x] Initial Submittal
- [ ] Amended Report
- [ ] As Drilled

Property Name and Well Number

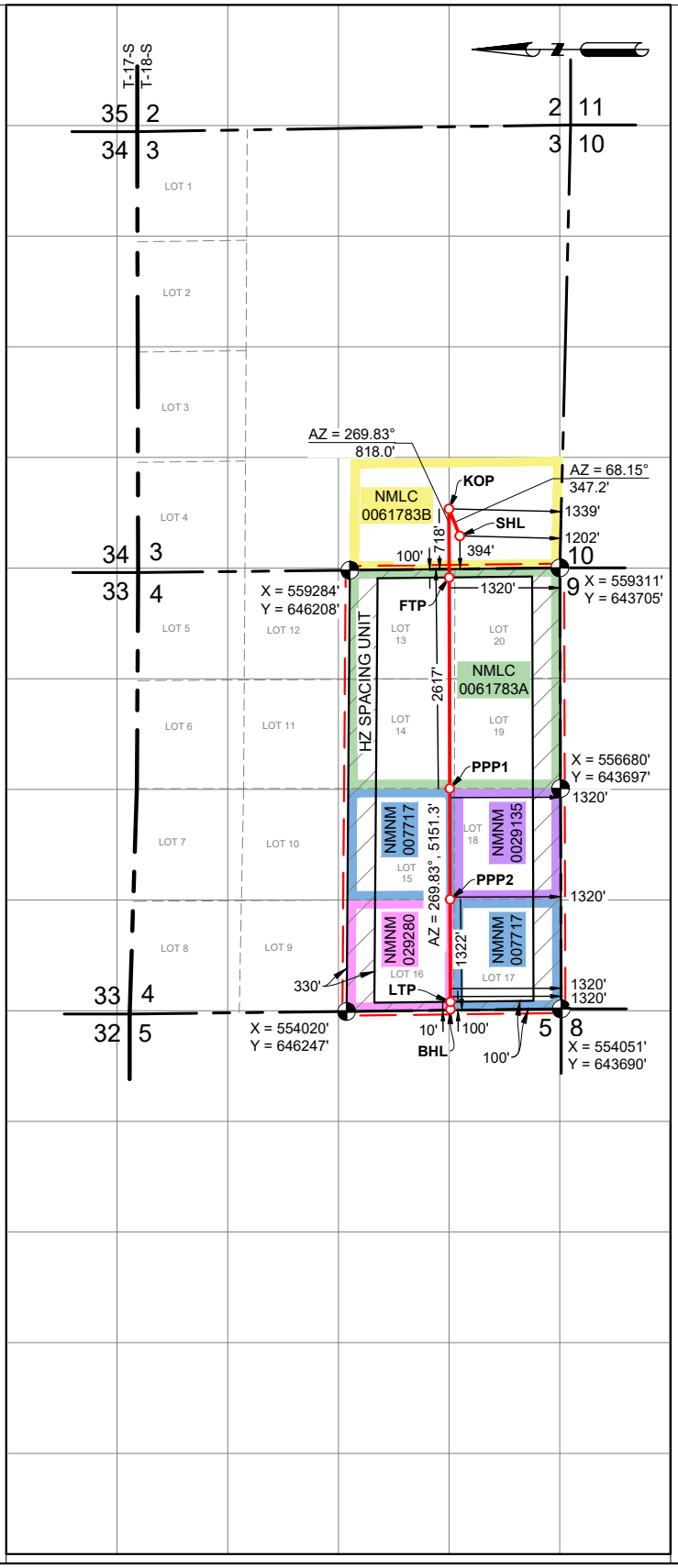
BUNNY 3-4 FED COM 15H

SURFACE LOCATION
NEW MEXICO EAST
NAD 1983
X=559692' Y=644898'
LAT=N32.772845°
LONG=W104.273615°
NAD 1927
X=518513' Y=644835'
LAT=N32.772730°
LONG=W104.273101°
1202' FSL 394' FWL

KOP LOCATION
NEW MEXICO EAST
NAD 1983
X=560015' Y=645027'
LAT=N32.773200°
LONG=W104.272566°
NAD 1927
X=518836' Y=644965'
LAT=N32.773085°
LONG=W104.272052°
1339' FSL 718' FWL

FIRST TAKE POINT
NEW MEXICO EAST
NAD 1983
X=559197' Y=645025'
LAT=N32.773194°
LONG=W104.275228°
NAD 1927
X=518018' Y=644962'
LAT=N32.773080°
LONG=W104.274714°
1320' FSL 100' FEL

PROPOSED PENETRATION POINT 1
NEW MEXICO EAST
NAD 1983
X=556680' Y=645018'
LAT=N32.773177°
LONG=W104.283417°
NAD 1927
X=515501' Y=644955'
LAT=N32.773063°
LONG=W104.282903°
1320' FSL 2617' FEL



PROPOSED PENETRATION POINT 2
NEW MEXICO EAST
NAD 1983
X=555358' Y=645014'
LAT=N32.773168°
LONG=W104.287719°
NAD 1927
X=514179' Y=644951'
LAT=N32.773054°
LONG=W104.287204°
1320' FSL 1322' FWL

LAST TAKE POINT
NEW MEXICO EAST
NAD 1983
X=554135' Y=645010'
LAT=N32.773159°
LONG=W104.291695°
NAD 1927
X=512956' Y=644947'
LAT=N32.773045°
LONG=W104.291180°
1320' FSL 100' FWL

BOTTOM HOLE LOCATION
NEW MEXICO EAST
NAD 1983
X=554045' Y=645010'
LAT=N32.773159°
LONG=W104.291988°
NAD 1927
X=512866' Y=644947'
LAT=N32.773044°
LONG=W104.291473°
1320' FSL 10' FWL

Note: Bearings, coordinates, and distances (grid) shown hereon are based on the New Mexico State Plane Coordinate System, East Zone, NAD 83-2011 (EPOCH 2010) framework, as derived by OPUS Solution. The elevations shown hereon are based on NAVD 88.

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Riley Permian Operating Company LLC **OGRID:** 372290 **Date:** 04 / 04 / 2025

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Bunny 3-4 Fed Com 24H	30-015-PENDING	M – 3 – 18S – 27E	354' FSL 845' FWL	450	700	4,000
Bunny 3-4 Fed Com 17H	30-015-PENDING	M – 3 – 18S – 27E	384' FSL 847' FWL	450	700	4,000
Bunny 3-4 Fed Com 12H	30-015-PENDING	L – 3 – 18S – 27E	1202' FSL 364' FWL	450	700	4,000
Bunny 3-4 Fed Com 15H	30-015-PENDING	M – 3 – 18S – 27E	1202' FSL 394' FWL	450	700	4,000
Bunny 3-4 Fed Com 26H	30-015-PENDING	M – 3 – 18S – 27E	1202' FSL 424' FWL	450	700	4,000
Bunny 3-4 Fed Com 11H	30-015-PENDING	L – 3 – 18S – 27E	2127' FSL 395' FWL	450	700	4,000
Bunny 3-4 Fed Com 22H	30-015-PENDING	L – 3 – 18S – 27E	2097' FSL 395' FWL	450	700	4,000

IV. Central Delivery Point Name: Bunny 3 Fed Com North CTB [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Bunny 3-4 Fed Com 24H	30-015-PENDING	1/1/2026	1/8/2026	3/1/2026	4/1/2025	4/1/2025
Bunny 3-4 Fed Com 17H	30-015-PENDING	1/1/2026	1/8/2026	3/1/2026	4/1/2025	4/1/2025
Bunny 3-4 Fed Com 12H	30-015-PENDING	1/1/2026	1/8/2026	3/1/2026	4/1/2025	4/1/2025
Bunny 3-4 Fed Com 15H	30-015-PENDING	1/1/2026	1/8/2026	3/1/2026	4/1/2025	4/1/2025
Bunny 3-4 Fed Com 26H	30-015-PENDING	1/1/2026	1/8/2026	3/1/2026	4/1/2025	4/1/2025
Bunny 3-4 Fed Com 11H	30-015-PENDING	1/1/2026	1/8/2026	3/1/2026	4/1/2025	4/1/2025
Bunny 3-4 Fed Com 22H	30-015-PENDING	1/1/2026	1/8/2026	3/1/2026	4/1/2025	4/1/2025

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:	
Printed Name:	Spence Laird
Title:	Manager of EHSR
E-mail Address:	spencelaird@rileypermian.com
Date:	5/27/2025
Phone:	405-543-1411

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan – Attachment

VI. Separation equipment will be sized by construction engineering staff based on anticipated daily production to ensure adequate capacity.

VII. Riley Permian Operating Company LLC ("Riley") will take the following actions to comply with the regulations listed in 19.15.27.8:

A. Riley will maximize the recovery of natural gas by minimizing waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. Spur will ensure that our wells will be connected to a natural gas gathering system with sufficient capacity to transport natural gas.

B. All drilling operations will be equipped with a rig flare at least 100 feet from the nearest surface hole location. Rig flare will be utilized to combust any natural gas that is brought to surface during normal operations. In the case of emergency, flaring volumes will be reported appropriately.

C. During completion operations any natural gas brought to surface will be flared. Immediately following completion operations, wells will flow to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. If natural gas does not meet gathering pipeline specifications, Riley will flare for 60 days or until natural gas meets the pipeline specifications. Riley will ensure flare is properly sized and is equipped with an automatic igniter or continuous pilot. Gas samples will be taken twice per week and natural gas will be routed into a gathering system as soon as the pipeline specifications are met.

D. Natural gas will not be flared with the exception of 19.15.27.8(D)(1-4). If there is no adequate takeaway for the separator gas, wells will be shut-in until that natural gas gathering system is available with exception of emergency or malfunction situations. Volumes will be reported appropriately.

E. Riley will comply with performance standards pursuant to 19.15.27.8(E)(1-8). All equipment will be designed and sized to handle maximum pressures to minimize waste. Storage tanks constructed after May 25, 2021 will be equipped with an automatic gauging system that reduces venting of natural gas. Flare stacks installed or replaced after May 25, 2021 will be equipped with an automatic ignitor or continuous pilot. Riley will conduct AVO inspections as described in 19.15.27.8(E)(5)(a) with frequencies specified in 19.15.27.8(E)(5)(b) and (c). All emergencies or malfunctions will be resolved as quickly and safely as possible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of an emergency or malfunction during drilling and/or completion operations will be estimated and reported accordingly. The volume of natural gas that is vented, flared, or beneficially used during production operations will be measured and reported accordingly. Riley will install equipment to measure the volume of natural gas flared from existing piping or a flowline piped from equipment such as high-pressure separators, heater treaters, or VRUs associated with a well of facility associated with a well authorized by an APD after May 25, 2021 that has an average daily production of less than 60,000 cubic feet of natural gas.

If metering is not practicable due to circumstances such as low flow rate or low pressure venting or flaring, Riley will estimate the volume of flared or vented natural gas. Measuring equipment will conform to industry standards and will not be equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing equipment.

VIII. For maintenance activities involving production equipment and compression, venting be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production equipment, the associated producing wells will be shut-in to eliminate venting. For maintenance of VRUs, all natural gas normally routed to the VRU will be routed to flare.

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Operator: RILEY PERMIAN OPERATING COMPANY, LLC 29 E Reno Avenue, Suite 500 Oklahoma City, OK 73104	OGRID: 372290
	Action Number: 473912
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	7/25/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	7/25/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	7/25/2025
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.	7/25/2025
ward.rikala	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	7/25/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	7/25/2025