

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**

Form C-101  
August 1, 2011

Permit 378435

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

1. Operator Name and Address 3R Operating, LLC 20405 State Highway 249 Houston, TX 77070		2. OGRID Number 331569
4. Property Code 336570		3. API Number 30-015-55844
5. Property Name Steel Curtain 6-31 State Com		6. Well No. 702H

**7. Surface Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	6	23S	26E		267	S	1758	E	Eddy

**8. Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
C	31	22S	26E	C	330	N	1980	W	Eddy

**9. Pool Information**

PURPLE SAGE;WOLFCAMP (GAS)	98220
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**Additional Well Information**

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3416
16. Multiple N	17. Proposed Depth 8605	18. Formation Wolfcamp	19. Contractor	20. Spud Date 8/21/2025
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

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

**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	26	20	94	450	931	0
Int1	17.5	13.375	48	1560	1113	0
Prod	12.25	9.625	36	2500	727	0
Prod	8.75	5.5	20	8605	2806	0

**Casing/Cement Program: Additional Comments**

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**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.	<b>OIL CONSERVATION DIVISION</b>
Signature:	
Printed Name: Electronically filed by Lauren Franco	Approved By: Ward Rikala
Title:	Title: Petroleum Specialist Supervisor
Email Address: lfranco@3roperating.com	Approved Date: 12/12/2024      Expiration Date: 12/12/2026
Date: 12/5/2024      Phone: 432-413-4148	Conditions of Approval Attached

C-102  Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024	
		Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION			
API Number <b>30-015-55844</b>	Pool Code <b>98220</b>	Pool Name <b>Purple Sage; Wolfcamp (Gas)</b>	
Property Code <b>336570</b>	Property Name <b>STEEL CURTAIN 6-31 STATE COM</b>	Well Number <b>702H</b>	
OGRID No. <b>331569</b>	Operator Name <b>3R OPERATING, LLC.</b>	Ground Level Elevation <b>3,416'</b>	
Surface Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input type="checkbox"/> Federal	

Surface Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	6	23S	26E		267 FSL	1,758 FEL	32.326988	-104.330074	EDDY

Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	31	22S	26E		330 FNL	1,980 FWL	32.354624	-104.334207	EDDY


Dedicated Acres <b>627.28</b>	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
Order Numbers.			Well Setbacks are under Common Ownership: <input type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	6	23S	26E		230 FSL	1,980 FWL	32.326855	-104.334122	EDDY

First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
N	6	23S	26E		330 FSL	1,980 FWL	32.327130	-104.334122	EDDY

Last Take Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
C	31	22S	26E		330 FNL	1,980 FWL	32.354624	-104.334207	EDDY

Unitized Area of Area of Interest	Spacing Unit Type : <input type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation <b>3,416'</b>
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<div>OPERATOR CERTIFICATIONS</div> <p><i>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 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 at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of heretofore entered by the division.</i></p> <p><i>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 information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i></p> <div>Signature _____ Date _____</div> <div>Printed Name _____</div> <div>Email Address _____</div>	<div>SURVEYOR CERTIFICATIONS</div> <p><i>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</i></p> <div></div> <div>Signature and Seal of Professional Surveyor</div> <div><div>MARK DILLON HARP 23786 Certificate Number</div><div>11/7/2024 Date of Survey</div></div> <div>JP618.040001.00-06</div>
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Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

ACREAGE DEDICATION PLATS

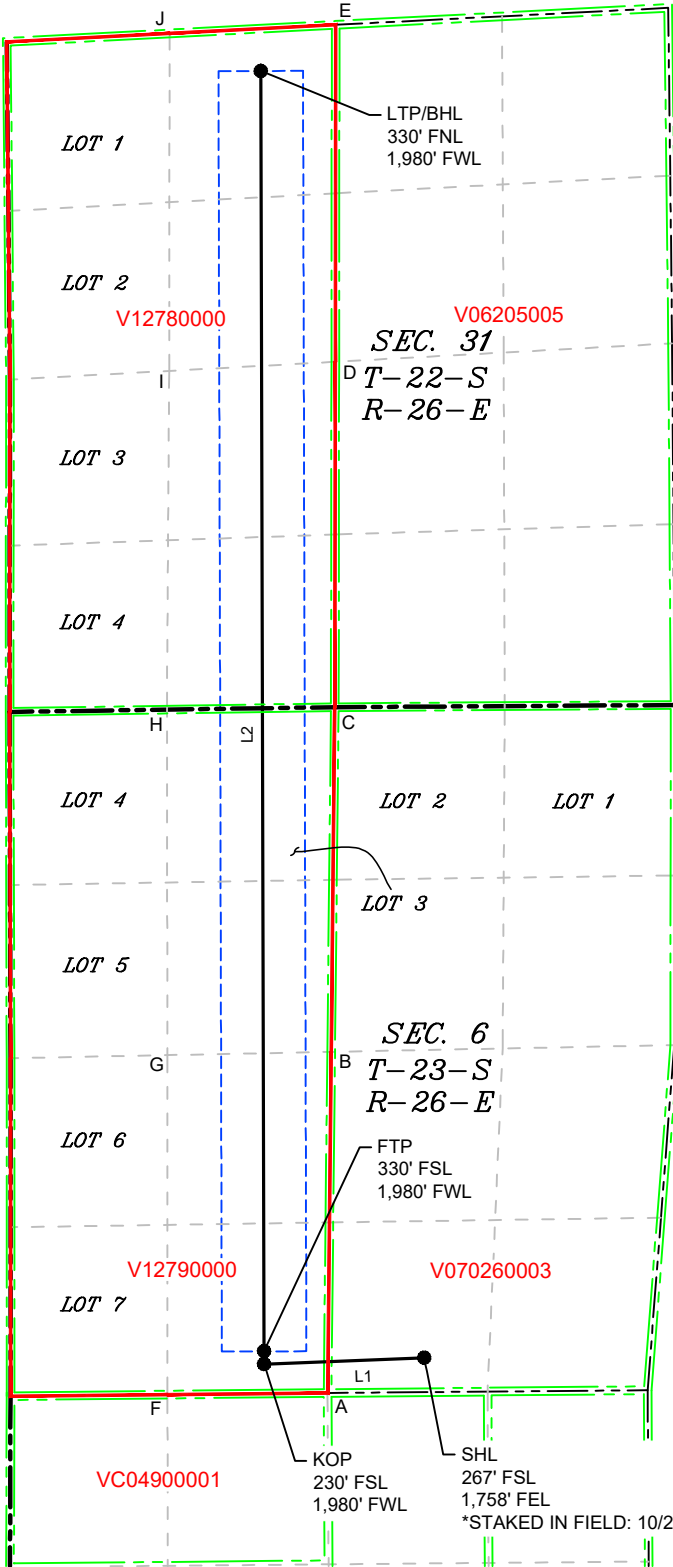
This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other then the First Take Point and Last Take Point) that is closest to any outer boundary of the tract.

Surveyor shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land in not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	267°46'34"	1,251.32'
L2	359°51'06"	10,102.01'

LOT ACREAGE TABLE	
SECTION 31	
T-22-S R-26-E	
LOT 1 = 39.16 ACRES	
LOT 2 = 38.69 ACRES	
LOT 3 = 38.21 ACRES	
LOT 4 = 37.74 ACRES	
SECTION 6	
T-23-S R-26-E	
LOT 3 = 40.07 ACRES	
LOT 4 = 37.72 ACRES	
LOT 5 = 38.14 ACRES	
LOT 6 = 38.56 ACRES	
LOT 7 = 38.99 ACRES	

LEGEND	
	SECTION LINE
	PROPOSED WELL BORE
	NEW MEXICO MINERAL LEASE
	330' BUFFER
	ALLOCATION AREA



COORDINATE TABLE			
SHL (NAD 83 NME)		SHL (NAD 27 NME)	
Y =	482,690.55 N	Y =	482,632.09 N
X =	542,344.27 E	X =	501,163.55 E
LAT. =	32.326988 °N	LAT. =	32.326872 °N
LONG. =	104.330074 °W	LONG. =	104.329566 °W
KOP (NAD 83 NME)		KOP (NAD 27 NME)	
Y =	482,641.99 N	Y =	482,583.56 N
X =	541,093.89 E	X =	499,913.18 E
LAT. =	32.326855 °N	LAT. =	32.326738 °N
LONG. =	104.334122 °W	LONG. =	104.333614 °W
FTP (NAD 83 NME)		FTP (NAD 27 NME)	
Y =	482,742.00 N	Y =	482,683.56 N
X =	541,093.89 E	X =	499,913.19 E
LAT. =	32.327130 °N	LAT. =	32.327013 °N
LONG. =	104.334122 °W	LONG. =	104.333614 °W
LTP/BHL (NAD 83 NME)		LTP/BHL (NAD 27 NME)	
Y =	492,743.97 N	Y =	492,685.29 N
X =	541,067.74 E	X =	499,887.21 E
LAT. =	32.354624 °N	LAT. =	32.354507 °N
LONG. =	104.334207 °W	LONG. =	104.333699 °W
CORNER COORDINATES (NAD 83 NME)			
A - Y =	482,416.96 N	A - X =	541,589.86 E
B - Y =	485,081.58 N	B - X =	541,617.40 E
C - Y =	487,774.23 N	C - X =	541,645.98 E
D - Y =	490,472.61 N	D - X =	541,649.42 E
E - Y =	493,104.78 N	E - X =	541,652.76 E
F - Y =	482,404.41 N	F - X =	540,339.28 E
G - Y =	485,056.26 N	G - X =	540,339.11 E
H - Y =	487,755.14 N	H - X =	540,335.23 E
I - Y =	490,401.74 N	I - X =	540,352.68 E
J - Y =	493,037.49 N	J - X =	540,356.11 E
CORNER COORDINATES (NAD 27 NME)			
A - Y =	482,358.52 N	A - X =	500,409.15 E
B - Y =	485,023.08 N	B - X =	500,436.73 E
C - Y =	487,715.66 N	C - X =	500,465.36 E
D - Y =	490,413.97 N	D - X =	500,468.84 E
E - Y =	493,046.08 N	E - X =	500,472.24 E
F - Y =	482,346.00 N	F - X =	499,158.59 E
G - Y =	484,997.79 N	G - X =	499,158.46 E
H - Y =	487,696.59 N	H - X =	499,154.62 E
I - Y =	490,343.13 N	I - X =	499,172.12 E
J - Y =	492,978.81 N	J - X =	499,175.60 E

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**Santa Fe, NM 87505**

Form APD Conditions

Permit 378435

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: 3R Operating, LLC [331569] 20405 State Highway 249 Houston, TX 77070	API Number: 30-015-55844
	Well: Steel Curtain 6-31 State Com #702H

OCD Reviewer	Condition
ward.rikala	Notify the OCD 24 hours prior to casing & cement.
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.
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.
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.
ward.rikala	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.
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.
ward.rikala	A [C-103] Sub. Drilling (C-103N) is required within (10) days of spud.
ward.rikala	Prior to production of this well a change to the well name/number is required to comply with the OCD well naming convention.
ward.rikala	This well may or may not be within the Capitan Reef. If the Reef is encountered while drilling, drilling shall immediately cease and intermediate casing shall be ran and cemented back to surface. Once the Reef is fully penetrated, another intermediate string shall be ran and cemented back to surface.
ward.rikala	Must submit NGMP in its' entirety.



**3R Operating, LLC**

## **3R Operating LLC**

**Eddy County\_NM (N83-NME)**

**Steel Curtain 6-31**

**04\_Steel Curtain 6-31 State Com 702H - Slot 04\_Steel Curtain  
702H**

**702H**

**Plan: APD-Rev01**

## **Standard Planning Report**

**26 November, 2024**



3R Operating, LLC

Planning Report

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well 04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H
Company:	3R Operating LLC	TVD Reference:	3416+25 @ 3441.00usft
Project:	Eddy County_NM (N83-NME)	MD Reference:	3416+25 @ 3441.00usft
Site:	Steel Curtain 6-31	North Reference:	Grid
Well:	04_Steel Curtain 6-31 State Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	702H		
Design:	APD-Rev01		

Project	Eddy County_NM (N83-NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Steel Curtain 6-31		
Site Position:		Northing:	482,689.83 usft
From:	Map	Easting:	542,254.34 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.32698640
		Longitude:	-104.33036509

Well	04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
Grid Convergence:	0.00 °		
		Latitude:	32.32698837
		Longitude:	-104.33007395
		Ground Level:	3,416.00 usft

Wellbore	702H		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2020	11/26/2024	6.50
			Dip Angle
			(°)
			59.77
			Field Strength
			(nT)
			47,118.94277144

Design	APD-Rev01		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			359.85

Plan Survey Tool Program	Date	11/26/2024		
Depth From	Depth To			
(usft)	(usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,077.59	APD-Rev01 (702H)	OWSG MWD Rev 5
				OWSG MWD - Standard

Plan Sections										
Measured										
Depth	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
(usft)	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,615.85	12.32	245.28	2,611.12	-27.57	-59.90	2.00	2.00	0.00	245.28	
8,124.71	12.32	245.28	7,993.18	-518.93	-1,127.39	0.00	0.00	0.00	0.00	
9,075.59	90.00	359.85	8,605.00	51.45	-1,250.38	10.00	8.17	12.05	114.07	02-FTP(SCSC-702H)
19,077.59	90.00	359.85	8,605.00	10,053.42	-1,276.53	0.00	0.00	0.00	0.00	03-PBHL(SCSC-702H)



3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	3416+25 @ 3441.00usft
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	3416+25 @ 3441.00usft
<b>Site:</b>	Steel Curtain 6-31	<b>North Reference:</b>	Grid
<b>Well:</b>	04_Steel Curtain 6-31 State Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

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
660.00	0.00	0.00	660.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Capitan</b>									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,390.00	0.00	0.00	1,390.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Lamar</b>									
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,635.00	0.00	0.00	1,635.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Delaware</b>									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	245.28	2,099.98	-0.73	-1.59	-0.73	2.00	2.00	0.00
2,200.00	4.00	245.28	2,199.84	-2.92	-6.34	-2.90	2.00	2.00	0.00
2,300.00	6.00	245.28	2,299.45	-6.56	-14.26	-6.52	2.00	2.00	0.00
2,400.00	8.00	245.28	2,398.70	-11.66	-25.33	-11.59	2.00	2.00	0.00
2,500.00	10.00	245.28	2,497.47	-18.20	-39.54	-18.09	2.00	2.00	0.00
2,600.00	12.00	245.28	2,595.62	-26.18	-56.87	-26.03	2.00	2.00	0.00
2,615.85	12.32	245.28	2,611.12	-27.57	-59.90	-27.41	2.00	2.00	0.00
2,700.00	12.32	245.28	2,693.33	-35.08	-76.21	-34.88	0.00	0.00	0.00
2,800.00	12.32	245.28	2,791.03	-44.00	-95.58	-43.75	0.00	0.00	0.00
2,900.00	12.32	245.28	2,888.73	-52.92	-114.96	-52.61	0.00	0.00	0.00
3,000.00	12.32	245.28	2,986.43	-61.84	-134.34	-61.48	0.00	0.00	0.00
3,100.00	12.32	245.28	3,084.12	-70.75	-153.72	-70.35	0.00	0.00	0.00
3,200.00	12.32	245.28	3,181.82	-79.67	-173.09	-79.22	0.00	0.00	0.00
3,300.00	12.32	245.28	3,279.52	-88.59	-192.47	-88.09	0.00	0.00	0.00
3,400.00	12.32	245.28	3,377.22	-97.51	-211.85	-96.96	0.00	0.00	0.00
3,500.00	12.32	245.28	3,474.92	-106.43	-231.23	-105.83	0.00	0.00	0.00
3,600.00	12.32	245.28	3,572.61	-115.35	-250.61	-114.70	0.00	0.00	0.00
3,700.00	12.32	245.28	3,670.31	-124.27	-269.98	-123.56	0.00	0.00	0.00
3,800.00	12.32	245.28	3,768.01	-133.19	-289.36	-132.43	0.00	0.00	0.00
3,900.00	12.32	245.28	3,865.71	-142.11	-308.74	-141.30	0.00	0.00	0.00
4,000.00	12.32	245.28	3,963.41	-151.03	-328.12	-150.17	0.00	0.00	0.00
4,100.00	12.32	245.28	4,061.11	-159.95	-347.49	-159.04	0.00	0.00	0.00
4,200.00	12.32	245.28	4,158.80	-168.87	-366.87	-167.91	0.00	0.00	0.00
4,300.00	12.32	245.28	4,256.50	-177.79	-386.25	-176.78	0.00	0.00	0.00
4,400.00	12.32	245.28	4,354.20	-186.71	-405.63	-185.65	0.00	0.00	0.00
4,500.00	12.32	245.28	4,451.90	-195.63	-425.01	-194.51	0.00	0.00	0.00



3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	3416+25 @ 3441.00usft
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	3416+25 @ 3441.00usft
<b>Site:</b>	Steel Curtain 6-31	<b>North Reference:</b>	Grid
<b>Well:</b>	04_Steel Curtain 6-31 State Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

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)
4,600.00	12.32	245.28	4,549.60	-204.55	-444.38	-203.38	0.00	0.00	0.00
4,700.00	12.32	245.28	4,647.30	-213.47	-463.76	-212.25	0.00	0.00	0.00
4,800.00	12.32	245.28	4,744.99	-222.39	-483.14	-221.12	0.00	0.00	0.00
4,900.00	12.32	245.28	4,842.69	-231.30	-502.52	-229.99	0.00	0.00	0.00
4,979.13	12.32	245.28	4,920.00	-238.36	-517.85	-237.01	0.00	0.00	0.00
<b>Bone Spring</b>									
5,000.00	12.32	245.28	4,940.39	-240.22	-521.89	-238.86	0.00	0.00	0.00
5,100.00	12.32	245.28	5,038.09	-249.14	-541.27	-247.73	0.00	0.00	0.00
5,200.00	12.32	245.28	5,135.79	-258.06	-560.65	-256.59	0.00	0.00	0.00
5,300.00	12.32	245.28	5,233.49	-266.98	-580.03	-265.46	0.00	0.00	0.00
5,400.00	12.32	245.28	5,331.18	-275.90	-599.41	-274.33	0.00	0.00	0.00
5,500.00	12.32	245.28	5,428.88	-284.82	-618.78	-283.20	0.00	0.00	0.00
5,600.00	12.32	245.28	5,526.58	-293.74	-638.16	-292.07	0.00	0.00	0.00
5,700.00	12.32	245.28	5,624.28	-302.66	-657.54	-300.94	0.00	0.00	0.00
5,800.00	12.32	245.28	5,721.98	-311.58	-676.92	-309.81	0.00	0.00	0.00
5,849.16	12.32	245.28	5,770.00	-315.96	-686.44	-314.17	0.00	0.00	0.00
<b>1st Bone Spring Sand</b>									
5,900.00	12.32	245.28	5,819.67	-320.50	-696.29	-318.68	0.00	0.00	0.00
6,000.00	12.32	245.28	5,917.37	-329.42	-715.67	-327.54	0.00	0.00	0.00
6,064.10	12.32	245.28	5,980.00	-335.14	-728.09	-333.23	0.00	0.00	0.00
<b>2nd Bone Spring Carb</b>									
6,100.00	12.32	245.28	6,015.07	-338.34	-735.05	-336.41	0.00	0.00	0.00
6,200.00	12.32	245.28	6,112.77	-347.26	-754.43	-345.28	0.00	0.00	0.00
6,299.52	12.32	245.28	6,210.00	-356.13	-773.71	-354.11	0.00	0.00	0.00
<b>2nd Bone Spring Sand</b>									
6,300.00	12.32	245.28	6,210.47	-356.18	-773.80	-354.15	0.00	0.00	0.00
6,400.00	12.32	245.28	6,308.17	-365.10	-793.18	-363.02	0.00	0.00	0.00
6,500.00	12.32	245.28	6,405.86	-374.02	-812.56	-371.89	0.00	0.00	0.00
6,524.70	12.32	245.28	6,430.00	-376.22	-817.35	-374.08	0.00	0.00	0.00
<b>3rd Bone Spring Carb</b>									
6,600.00	12.32	245.28	6,503.56	-382.94	-831.94	-380.76	0.00	0.00	0.00
6,700.00	12.32	245.28	6,601.26	-391.85	-851.32	-389.62	0.00	0.00	0.00
6,800.00	12.32	245.28	6,698.96	-400.77	-870.69	-398.49	0.00	0.00	0.00
6,900.00	12.32	245.28	6,796.66	-409.69	-890.07	-407.36	0.00	0.00	0.00
7,000.00	12.32	245.28	6,894.36	-418.61	-909.45	-416.23	0.00	0.00	0.00
7,100.00	12.32	245.28	6,992.05	-427.53	-928.83	-425.10	0.00	0.00	0.00
7,200.00	12.32	245.28	7,089.75	-436.45	-948.20	-433.97	0.00	0.00	0.00
7,300.00	12.32	245.28	7,187.45	-445.37	-967.58	-442.84	0.00	0.00	0.00
7,400.00	12.32	245.28	7,285.15	-454.29	-986.96	-451.71	0.00	0.00	0.00
7,500.00	12.32	245.28	7,382.85	-463.21	-1,006.34	-460.57	0.00	0.00	0.00
7,600.00	12.32	245.28	7,480.54	-472.13	-1,025.72	-469.44	0.00	0.00	0.00
7,700.00	12.32	245.28	7,578.24	-481.05	-1,045.09	-478.31	0.00	0.00	0.00
7,800.00	12.32	245.28	7,675.94	-489.97	-1,064.47	-487.18	0.00	0.00	0.00
7,900.00	12.32	245.28	7,773.64	-498.89	-1,083.85	-496.05	0.00	0.00	0.00
8,000.00	12.32	245.28	7,871.34	-507.81	-1,103.23	-504.92	0.00	0.00	0.00
8,100.00	12.32	245.28	7,969.04	-516.73	-1,122.60	-513.79	0.00	0.00	0.00
8,124.71	12.32	245.28	7,993.18	-518.93	-1,127.39	-515.98	0.00	0.00	0.00
<b>KOP: 8124.71' MD/ -515.98' VS/7993.18' TVD</b>									
8,150.00	11.52	256.93	8,017.93	-520.63	-1,132.30	-517.66	10.00	-3.17	46.04
8,200.00	11.49	282.20	8,066.95	-520.71	-1,142.04	-517.71	10.00	-0.05	50.54
8,250.00	13.45	303.69	8,115.80	-516.43	-1,151.75	-513.41	10.00	3.91	43.00
8,264.63	14.30	308.66	8,130.00	-514.35	-1,154.57	-511.33	10.00	5.82	33.96





3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	3416+25 @ 3441.00usft
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	3416+25 @ 3441.00usft
<b>Site:</b>	Steel Curtain 6-31	<b>North Reference:</b>	Grid
<b>Well:</b>	04_Steel Curtain 6-31 State Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

## 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)
<b>3rd Bone Spring Sand</b>									
8,300.00	16.70	318.41	8,164.09	-507.82	-1,161.36	-504.78	10.00	6.80	27.56
8,350.00	20.65	328.05	8,211.46	-494.96	-1,170.80	-491.89	10.00	7.90	19.29
8,400.00	24.96	334.60	8,257.54	-477.94	-1,180.00	-474.85	10.00	8.63	13.10
8,450.00	29.48	339.29	8,302.00	-456.88	-1,188.88	-453.77	10.00	9.04	9.37
8,500.00	34.13	342.81	8,344.48	-431.96	-1,197.38	-428.82	10.00	9.29	7.05
8,550.00	38.85	345.58	8,384.67	-403.35	-1,205.44	-400.19	10.00	9.45	5.53
8,574.11	41.15	346.72	8,403.14	-388.30	-1,209.14	-385.14	10.00	9.53	4.72
<b>01-KOP(SCSC-702H)</b>									
8,600.00	43.63	347.83	8,422.26	-371.28	-1,212.99	-368.10	10.00	9.57	4.29
8,650.00	48.44	349.71	8,456.96	-335.99	-1,219.97	-332.80	10.00	9.63	3.77
8,700.00	53.28	351.33	8,488.52	-297.75	-1,226.34	-294.54	10.00	9.68	3.24
8,750.00	58.14	352.76	8,516.68	-256.85	-1,232.03	-253.62	10.00	9.72	2.86
8,797.29	62.75	353.98	8,540.00	-216.00	-1,236.77	-212.76	10.00	9.75	2.58
<b>Wolfcamp XY*</b>									
8,800.00	63.01	354.05	8,541.24	-213.60	-1,237.02	-210.36	10.00	9.76	2.46
8,850.00	67.90	355.22	8,562.00	-168.33	-1,241.27	-165.08	10.00	9.77	2.36
8,900.00	72.79	356.32	8,578.82	-121.39	-1,244.73	-118.13	10.00	9.78	2.20
8,950.00	77.69	357.37	8,591.55	-73.13	-1,247.38	-69.86	10.00	9.79	2.08
9,000.00	82.59	358.37	8,600.12	-23.92	-1,249.21	-20.65	10.00	9.80	2.01
9,050.00	87.49	359.35	8,604.44	25.87	-1,250.20	29.14	10.00	9.81	1.96
9,075.59	90.00	359.85	8,605.00	51.45	-1,250.38	54.72	10.00	9.81	1.95
<b>EOC: 9075.59' MD/ 54.72' VS/8605.00' TVD - Wolfcamp XY Target CL - 02-FTP(SCSC-702H)</b>									
9,100.00	90.00	359.85	8,605.00	75.86	-1,250.44	79.13	0.00	0.00	0.00
9,200.00	90.00	359.85	8,605.00	175.86	-1,250.71	179.13	0.00	0.00	0.00
9,300.00	90.00	359.85	8,605.00	275.86	-1,250.97	279.13	0.00	0.00	0.00
9,400.00	90.00	359.85	8,605.00	375.86	-1,251.23	379.13	0.00	0.00	0.00
9,500.00	90.00	359.85	8,605.00	475.86	-1,251.49	479.13	0.00	0.00	0.00
9,600.00	90.00	359.85	8,605.00	575.86	-1,251.75	579.13	0.00	0.00	0.00
9,700.00	90.00	359.85	8,605.00	675.86	-1,252.01	679.13	0.00	0.00	0.00
9,800.00	90.00	359.85	8,605.00	775.86	-1,252.27	779.13	0.00	0.00	0.00
9,900.00	90.00	359.85	8,605.00	875.86	-1,252.54	879.13	0.00	0.00	0.00
10,000.00	90.00	359.85	8,605.00	975.86	-1,252.80	979.13	0.00	0.00	0.00
10,100.00	90.00	359.85	8,605.00	1,075.86	-1,253.06	1,079.13	0.00	0.00	0.00
10,200.00	90.00	359.85	8,605.00	1,175.86	-1,253.32	1,179.13	0.00	0.00	0.00
10,300.00	90.00	359.85	8,605.00	1,275.86	-1,253.58	1,279.13	0.00	0.00	0.00
10,400.00	90.00	359.85	8,605.00	1,375.86	-1,253.84	1,379.13	0.00	0.00	0.00
10,500.00	90.00	359.85	8,605.00	1,475.86	-1,254.10	1,479.13	0.00	0.00	0.00
10,600.00	90.00	359.85	8,605.00	1,575.86	-1,254.37	1,579.13	0.00	0.00	0.00
10,700.00	90.00	359.85	8,605.00	1,675.86	-1,254.63	1,679.13	0.00	0.00	0.00
10,800.00	90.00	359.85	8,605.00	1,775.86	-1,254.89	1,779.13	0.00	0.00	0.00
10,900.00	90.00	359.85	8,605.00	1,875.86	-1,255.15	1,879.13	0.00	0.00	0.00
11,000.00	90.00	359.85	8,605.00	1,975.85	-1,255.41	1,979.13	0.00	0.00	0.00
11,100.00	90.00	359.85	8,605.00	2,075.85	-1,255.67	2,079.13	0.00	0.00	0.00
11,200.00	90.00	359.85	8,605.00	2,175.85	-1,255.93	2,179.13	0.00	0.00	0.00
11,300.00	90.00	359.85	8,605.00	2,275.85	-1,256.20	2,279.13	0.00	0.00	0.00
11,400.00	90.00	359.85	8,605.00	2,375.85	-1,256.46	2,379.13	0.00	0.00	0.00
11,500.00	90.00	359.85	8,605.00	2,475.85	-1,256.72	2,479.13	0.00	0.00	0.00
11,600.00	90.00	359.85	8,605.00	2,575.85	-1,256.98	2,579.13	0.00	0.00	0.00
11,700.00	90.00	359.85	8,605.00	2,675.85	-1,257.24	2,679.13	0.00	0.00	0.00
11,800.00	90.00	359.85	8,605.00	2,775.85	-1,257.50	2,779.13	0.00	0.00	0.00
11,900.00	90.00	359.85	8,605.00	2,875.85	-1,257.76	2,879.13	0.00	0.00	0.00
12,000.00	90.00	359.85	8,605.00	2,975.85	-1,258.03	2,979.13	0.00	0.00	0.00



3R Operating, LLC

## Planning Report

<b>Database:</b>	TZ USA 17.2	<b>Local Co-ordinate Reference:</b>	Well 04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H
<b>Company:</b>	3R Operating LLC	<b>TVD Reference:</b>	3416+25 @ 3441.00usft
<b>Project:</b>	Eddy County_NM (N83-NME)	<b>MD Reference:</b>	3416+25 @ 3441.00usft
<b>Site:</b>	Steel Curtain 6-31	<b>North Reference:</b>	Grid
<b>Well:</b>	04_Steel Curtain 6-31 State Com 702H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	702H		
<b>Design:</b>	APD-Rev01		

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)
12,100.00	90.00	359.85	8,605.00	3,075.85	-1,258.29	3,079.13	0.00	0.00	0.00
12,200.00	90.00	359.85	8,605.00	3,175.85	-1,258.55	3,179.13	0.00	0.00	0.00
12,300.00	90.00	359.85	8,605.00	3,275.85	-1,258.81	3,279.13	0.00	0.00	0.00
12,400.00	90.00	359.85	8,605.00	3,375.85	-1,259.07	3,379.13	0.00	0.00	0.00
12,500.00	90.00	359.85	8,605.00	3,475.85	-1,259.33	3,479.13	0.00	0.00	0.00
12,600.00	90.00	359.85	8,605.00	3,575.85	-1,259.59	3,579.13	0.00	0.00	0.00
12,700.00	90.00	359.85	8,605.00	3,675.85	-1,259.86	3,679.13	0.00	0.00	0.00
12,800.00	90.00	359.85	8,605.00	3,775.85	-1,260.12	3,779.13	0.00	0.00	0.00
12,900.00	90.00	359.85	8,605.00	3,875.85	-1,260.38	3,879.13	0.00	0.00	0.00
13,000.00	90.00	359.85	8,605.00	3,975.85	-1,260.64	3,979.13	0.00	0.00	0.00
13,100.00	90.00	359.85	8,605.00	4,075.85	-1,260.90	4,079.13	0.00	0.00	0.00
13,200.00	90.00	359.85	8,605.00	4,175.85	-1,261.16	4,179.13	0.00	0.00	0.00
13,300.00	90.00	359.85	8,605.00	4,275.85	-1,261.42	4,279.13	0.00	0.00	0.00
13,400.00	90.00	359.85	8,605.00	4,375.85	-1,261.69	4,379.13	0.00	0.00	0.00
13,500.00	90.00	359.85	8,605.00	4,475.85	-1,261.95	4,479.13	0.00	0.00	0.00
13,600.00	90.00	359.85	8,605.00	4,575.85	-1,262.21	4,579.13	0.00	0.00	0.00
13,700.00	90.00	359.85	8,605.00	4,675.85	-1,262.47	4,679.13	0.00	0.00	0.00
13,800.00	90.00	359.85	8,605.00	4,775.85	-1,262.73	4,779.13	0.00	0.00	0.00
13,900.00	90.00	359.85	8,605.00	4,875.84	-1,262.99	4,879.13	0.00	0.00	0.00
14,000.00	90.00	359.85	8,605.00	4,975.84	-1,263.25	4,979.13	0.00	0.00	0.00
14,100.00	90.00	359.85	8,605.00	5,075.84	-1,263.52	5,079.13	0.00	0.00	0.00
14,200.00	90.00	359.85	8,605.00	5,175.84	-1,263.78	5,179.13	0.00	0.00	0.00
14,300.00	90.00	359.85	8,605.00	5,275.84	-1,264.04	5,279.13	0.00	0.00	0.00
14,400.00	90.00	359.85	8,605.00	5,375.84	-1,264.30	5,379.13	0.00	0.00	0.00
14,500.00	90.00	359.85	8,605.00	5,475.84	-1,264.56	5,479.13	0.00	0.00	0.00
14,600.00	90.00	359.85	8,605.00	5,575.84	-1,264.82	5,579.13	0.00	0.00	0.00
14,700.00	90.00	359.85	8,605.00	5,675.84	-1,265.08	5,679.13	0.00	0.00	0.00
14,800.00	90.00	359.85	8,605.00	5,775.84	-1,265.35	5,779.13	0.00	0.00	0.00
14,900.00	90.00	359.85	8,605.00	5,875.84	-1,265.61	5,879.13	0.00	0.00	0.00
15,000.00	90.00	359.85	8,605.00	5,975.84	-1,265.87	5,979.13	0.00	0.00	0.00
15,100.00	90.00	359.85	8,605.00	6,075.84	-1,266.13	6,079.13	0.00	0.00	0.00
15,200.00	90.00	359.85	8,605.00	6,175.84	-1,266.39	6,179.13	0.00	0.00	0.00
15,300.00	90.00	359.85	8,605.00	6,275.84	-1,266.65	6,279.13	0.00	0.00	0.00
15,400.00	90.00	359.85	8,605.00	6,375.84	-1,266.92	6,379.13	0.00	0.00	0.00
15,500.00	90.00	359.85	8,605.00	6,475.84	-1,267.18	6,479.13	0.00	0.00	0.00
15,600.00	90.00	359.85	8,605.00	6,575.84	-1,267.44	6,579.13	0.00	0.00	0.00
15,700.00	90.00	359.85	8,605.00	6,675.84	-1,267.70	6,679.13	0.00	0.00	0.00
15,800.00	90.00	359.85	8,605.00	6,775.84	-1,267.96	6,779.13	0.00	0.00	0.00
15,900.00	90.00	359.85	8,605.00	6,875.84	-1,268.22	6,879.13	0.00	0.00	0.00
16,000.00	90.00	359.85	8,605.00	6,975.84	-1,268.48	6,979.13	0.00	0.00	0.00
16,100.00	90.00	359.85	8,605.00	7,075.84	-1,268.75	7,079.13	0.00	0.00	0.00
16,200.00	90.00	359.85	8,605.00	7,175.84	-1,269.01	7,179.13	0.00	0.00	0.00
16,300.00	90.00	359.85	8,605.00	7,275.84	-1,269.27	7,279.13	0.00	0.00	0.00
16,400.00	90.00	359.85	8,605.00	7,375.84	-1,269.53	7,379.13	0.00	0.00	0.00
16,500.00	90.00	359.85	8,605.00	7,475.84	-1,269.79	7,479.13	0.00	0.00	0.00
16,600.00	90.00	359.85	8,605.00	7,575.84	-1,270.05	7,579.13	0.00	0.00	0.00
16,700.00	90.00	359.85	8,605.00	7,675.84	-1,270.31	7,679.13	0.00	0.00	0.00
16,800.00	90.00	359.85	8,605.00	7,775.84	-1,270.58	7,779.13	0.00	0.00	0.00
16,900.00	90.00	359.85	8,605.00	7,875.83	-1,270.84	7,879.13	0.00	0.00	0.00
17,000.00	90.00	359.85	8,605.00	7,975.83	-1,271.10	7,979.13	0.00	0.00	0.00
17,100.00	90.00	359.85	8,605.00	8,075.83	-1,271.36	8,079.13	0.00	0.00	0.00
17,200.00	90.00	359.85	8,605.00	8,175.83	-1,271.62	8,179.13	0.00	0.00	0.00
17,300.00	90.00	359.85	8,605.00	8,275.83	-1,271.88	8,279.13	0.00	0.00	0.00



Planning Report

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well 04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H
Company:	3R Operating LLC	TVD Reference:	3416+25 @ 3441.00usft
Project:	Eddy County_NM (N83-NME)	MD Reference:	3416+25 @ 3441.00usft
Site:	Steel Curtain 6-31	North Reference:	Grid
Well:	04_Steel Curtain 6-31 State Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	702H		
Design:	APD-Rev01		

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)	
17,400.00	90.00	359.85	8,605.00	8,375.83	-1,272.14	8,379.13	0.00	0.00	0.00	
17,500.00	90.00	359.85	8,605.00	8,475.83	-1,272.41	8,479.13	0.00	0.00	0.00	
17,600.00	90.00	359.85	8,605.00	8,575.83	-1,272.67	8,579.13	0.00	0.00	0.00	
17,700.00	90.00	359.85	8,605.00	8,675.83	-1,272.93	8,679.13	0.00	0.00	0.00	
17,800.00	90.00	359.85	8,605.00	8,775.83	-1,273.19	8,779.13	0.00	0.00	0.00	
17,900.00	90.00	359.85	8,605.00	8,875.83	-1,273.45	8,879.13	0.00	0.00	0.00	
18,000.00	90.00	359.85	8,605.00	8,975.83	-1,273.71	8,979.13	0.00	0.00	0.00	
18,100.00	90.00	359.85	8,605.00	9,075.83	-1,273.97	9,079.13	0.00	0.00	0.00	
18,200.00	90.00	359.85	8,605.00	9,175.83	-1,274.24	9,179.13	0.00	0.00	0.00	
18,300.00	90.00	359.85	8,605.00	9,275.83	-1,274.50	9,279.13	0.00	0.00	0.00	
18,400.00	90.00	359.85	8,605.00	9,375.83	-1,274.76	9,379.13	0.00	0.00	0.00	
18,500.00	90.00	359.85	8,605.00	9,475.83	-1,275.02	9,479.13	0.00	0.00	0.00	
18,600.00	90.00	359.85	8,605.00	9,575.83	-1,275.28	9,579.13	0.00	0.00	0.00	
18,700.00	90.00	359.85	8,605.00	9,675.83	-1,275.54	9,679.13	0.00	0.00	0.00	
18,800.00	90.00	359.85	8,605.00	9,775.83	-1,275.80	9,779.13	0.00	0.00	0.00	
18,900.00	90.00	359.85	8,605.00	9,875.83	-1,276.07	9,879.13	0.00	0.00	0.00	
19,000.00	90.00	359.85	8,605.00	9,975.83	-1,276.33	9,979.13	0.00	0.00	0.00	
19,077.59	90.00	359.85	8,605.00	10,053.42	-1,276.53	10,056.72	0.00	0.00	0.00	
TD: 19077.59' MD/ 10056.72' VS/8605.00' TVD - 03-PBHL(SCSC-702H)										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
01-KOP(SCSC-702H) - hit/miss target - Shape - plan misses target center by 453.90usft at 8564.10usft MD (8395.55 TVD, -394.65 N, -1207.62 E) - Point	0.00	0.01	8,105.00	-48.56	-1,250.38	482,641.99	541,093.89	32.32685492	-104.33412202
02-FTP(SCSC-702H) - plan hits target center - Point	0.00	0.01	8,605.00	51.45	-1,250.38	482,742.00	541,093.89	32.32712984	-104.33412202
03-PBHL(SCSC-702H) - plan hits target center - Point	0.00	0.01	8,605.00	10,053.42	-1,276.53	492,743.97	541,067.74	32.35462381	-104.33420694



Planning Report

Database:	TZ USA 17.2	Local Co-ordinate Reference:	Well 04_Steel Curtain 6-31 State Com 702H - Slot 04_Steel Curtain 702H
Company:	3R Operating LLC	TVD Reference:	3416+25 @ 3441.00usft
Project:	Eddy County_NM (N83-NME)	MD Reference:	3416+25 @ 3441.00usft
Site:	Steel Curtain 6-31	North Reference:	Grid
Well:	04_Steel Curtain 6-31 State Com 702H	Survey Calculation Method:	Minimum Curvature
Wellbore:	702H		
Design:	APD-Rev01		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
660.00	660.00	Capitan				
1,390.00	1,390.00	Lamar				
1,635.00	1,635.00	Delaware				
4,979.13	4,920.00	Bone Spring				
5,849.16	5,770.00	1st Bone Spring Sand				
6,064.10	5,980.00	2nd Bone Spring Carb				
6,299.52	6,210.00	2nd Bone Spring Sand				
6,524.70	6,430.00	3rd Bone Spring Carb				
8,264.63	8,130.00	3rd Bone Spring Sand				
8,797.29	8,540.00	Wolfcamp XY*				
9,075.59	8,605.00	Wolfcamp XY Target CL				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
8,124.71	7,993.18	-518.93	-1,127.39	KOP: 8124.71' MD/ -515.98' VS/7993.18' TVD	
9,075.59	8,605.00	51.45	-1,250.38	EOC: 9075.59' MD/ 54.72' VS/8605.00' TVD	
19,077.59	8,605.00	10,053.42	-1,276.53	TD: 19077.59' MD/ 10056.72' VS/8605.00' TVD	

**3R Operating, LLC**  
**Ridge Runner Resources, LLC**  
1004 N . Big Spring St., Suite 325  
  
Midland, TX 79701

**H2S Contingency Plan**  
**Eddy County, NM**

**Escape**

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crew should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are NO homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'  
100 ppm H2S concentration shall trigger activation of this plan

**Emergency Procedures**

In the event of a release of gas containing H2S, the first responder(s) must:

- « Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- « Evacuate any public places encompassed by the 100 ppm ROE.
- « Be equipped with H2S monitors and air packs in order to control the release.
- « Use the "buddy system" to ensure no injuries occur during the response.
- « Take precautions to avoid personal injury during this operation.
- « Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- « Have received training
  - in the: Detection of
  - H2S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

**Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

**Characteristics of H2S and SO**

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H2S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO2	2.21 Air=1	2 ppm	N/A	1000 ppm

## Contacting Authorities

3 Bear Field Services personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. 3 Bear Field Services, LLC response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMERP).

## Hydrogen Sulfide Drilling Operations Plan

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - A. Characteristics of H2S
  - B. Physical effects and hazards
  - C. Principal and operation of H2S detectors, warning system and briefing areas.
  - D. Evacuation procedure, routes and first aid.
  - E. Proper use of safety equipment & life support systems
  - F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30-minute pressure demand air packs.
2. H2S Detection and Alarm Systems:
  - a. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may be placed as deemed necessary.
  - b. An audio alarm system will be installed on the derrick floor and in the top doghouse.
3. Windsock and/or wind streamers:
  - a. Windsock at mudpit area should be high enough to be visible.
  - b. Windsock on the rig floor and/ or top doghouse should be high enough to be visible.
4. Condition Flags and Signs
  - a. Warning sign on access road to location.
  - b. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H2S present in dangerous concentration). Only H2S trained and certified personnel

admitted to location.

5. Well control equipment:

- a. See exhibit BOP and Choke Diagrams

6. Communication:

- a. While working under masks chalkboards will be used for communication.
- b. Hand signals will be used where chalk board is inappropriate.
- c. Two-way radio will be used to communicate off location in case of emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drill stem Testing:

No DSTs are planned at this time.

- 8. Drilling contractor supervisor will be required to be familiar with the effects H<sub>2</sub>S has on tubular goods and other mechanical equipment.
- 9. If H<sub>2</sub>S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H<sub>2</sub>S scavengers if necessary.

**Emergency Assistance Telephone List**

**Ridge Runner Resources, LLC**

Ridge Runner Resources, LLC  
CEO-Brian Cassens

Office: (432)686-2973  
Office: (817)953-0480

Drilling Superintendent-Russell Simons  
Production Superintendent-Paul Martinez

Cell: (830)285-7501  
Cell: (325)206-1722



**Public Safety Numbers**

Eddy County Sheriff's Department	Number:	575-887-7551
Eddy County Fire & Rescue	Number:	575-628-5450
Carlsbad Police Department	Number:	575-885-2111
Carlsbad Fire Department	Number:	575-885-3125
Hospital – Carlsbad Medical Center	Number:	575-887-4100
Trans Aero Medevac	Number:	844-435-4911
NMDOT District 2 – Roswell	Number:	575-840-3035
NM OCD Dist. 2 – Artesia	Number:	575-626-0830
BLM Pecos District Office – Roswell	Number:	575-627-0272
BLM Carlsbad Field Office	Number:	575-234-5972
BLM Hobbs Field Station	Number:	575-393-3612
BLM CFO/Eddy Co. PET On-Call	Number:	575-361-2822
BLM Hobbs/Lea Co. PET On-Call	Number:	575-689-5981

Casing Program: RRR - Steel Curtain 6 31 State Com 702H

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Pipe Body Tension (lbs)	Joint Tension (lbs)	Air Weight (lbs)	Bouyant Weight (lbs)	Pipe Body Tension SF (1.8)	Joint Tension SF (1.8)
Surface																			
26"	0'	450'	450'	20"	94.0	J-55	BTC	New	9.2	2,110	9.80	520	7.25	1,480,000	1,402,000	42,300	36,353	40.71	38.57
Intermediate 1																			
17.5	0'	1,560'	1,560'	13 3/8"	48	H-40	BTC	New	8.5	1,730	2.51	770	3.35	541,000	322,000	74,880	65,154	8.30	4.94
Intermediate 2																			
12.25"	0'	2,500'	2,500'	9 5/8"	36	J-55	BTC	New	8.6	3,520	3.15	2,020	5.42	564,000	639,000	90,000	78,172	7.21	8.17
Production																			
8.75"	0'	19,078'	8,605'	5 1/2"	20	P110	BTC	New	9.6	12,640	2.94	11,100	2.58	641,000	667,000	172,100	146,853	4.36	4.54

Casing Design Criteria and Casing Loading Assumptions:

Surface	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.2 ppg
Collapse A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:	9.2 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.2 ppg
Intermediate 1	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.5 ppg
Collapse A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:	8.5 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.5 ppg
Intermediate 2	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	8.6 ppg
Collapse A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:	8.6 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	8.6 ppg
Production	
Tension A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.6 ppg
Collapse A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.6 ppg
Burst A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.6 ppg

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

Submit Electronically  
Via E-permitting

## 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:** \_\_\_\_\_ **OGRID:** \_\_\_\_\_ **Date:** \_\_\_\_/\_\_\_\_/\_\_\_\_

**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

**IV. Central Delivery Point Name:** \_\_\_\_\_ [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

**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:
Title:
E-mail Address:
Date:
Phone:
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

Section 1-Plan Description -III. Wells

<u>Well Name</u>	<u>API</u>	<u>ULSTR</u>	<u>Footages</u>	<u>Anticipated Oil BBL/D</u>	<u>Anticipated Gas MCF/D</u>	<u>Anticipated Produced Water BBL/D</u>
Steel Curtain 6-31 State Com 501H	Pending	6-23S-26E	267' FSL & 1,848' FEL	700	1800	3500
Steel Curtain 6-31 State Com 502H	Pending	6-23S-26E	267' FSL & 1,818' FEL	700	1800	3500
Steel Curtain 6-31 State Com 701H	Pending	6-23S-26E	267' FSL & 1,788' FEL	700	1800	3500
Steel Curtain 6-31 State Com 702H	Pending	6-23S-26E	267' FSL & 1,758' FEL	700	1800	3500

V. Anticipated Schedule						
<u>Well Name</u>	<u>API</u>	<u>Spud date</u>	<u>TD Reached Date</u>	<u>Completion Commencement Date</u>	<u>Initial Flow Back Date</u>	<u>First Production Date</u>
Steel Curtain 6-31 State Com 501H	Pending	6/1/2025	6/26/2025	10/1/2025	12/1/2025	12/15/2025
Steel Curtain 6-31 State Com 502H	Pending	6/28/2025	7/23/2025	10/1/2025	12/1/2025	12/15/2025
Steel Curtain 6-31 State Com 701H	Pending	7/25/2025	8/19/2025	10/1/2025	12/1/2025	12/15/2025
Steel Curtain 6-31 State Com 702H	Pending	8/21/2025	9/15/2025	10/1/2025	12/1/2025	12/15/2025

Section 2- Enhanced Plan

IX. Anticipated Natural Gas Production

<u>Well</u>	<u>API</u>	<u>Anticipated Average Natural Gas Rate MCF/D</u>	<u>Anticipated Volume of Natural Gas for the First Year MCF</u>
Steel Curtain 6-31 State Com 501H	Pending	1370	500,000
Steel Curtain 6-31 State Com 502H	Pending	1370	500,000
Steel Curtain 6-31 State Com 701H	Pending	1370	500,000
Steel Curtain 6-31 State Com 702H	Pending	1370	500,000

X. Natural Gas Gathering System (NGGS):

<u>Operator</u>	<u>System</u>	<u>ULSTR of Tie-in</u>	<u>Anticipated Gathering Start Date</u>	<u>Available Maximum Daily Capacity of System Segment Tie-in</u>
Enterprise		6-23S-26E	12/1/2025	10,000