

District I1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720**District II**811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720**District III**1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170**District IV**1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 274872

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

1. Operator Name and Address MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240		2. OGRID Number 228937
		3. API Number 30-015-46446
4. Property Code 326434	5. Property Name RAY STATE COM	6. Well No. 224H

7. Surface Location

UL - Lot A	Section 1	Township 24S	Range 28E	Lot Idn	Feet From 981	N/S Line N	Feet From 317	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot A	Section 25	Township 23S	Range 28E	Lot Idn A	Feet From 240	N/S Line N	Feet From 330	E/W Line E	County Eddy
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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 2962
16. Multiple N	17. Proposed Depth 22215	18. Formation Wolfcamp	19. Contractor	20. Spud Date 11/21/2019
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	20	13.375	54.5	225	306	0
Int1	12.25	9.625	40	2800	753	0
Int2	8.75	7.625	29.7	10325	463	2600
Prod	6.75	5.5	20	21058	812	10125

Casing/Cement Program: Additional Comments

Option to drill surface hole with surface setting rig

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	3000	Cameron
Double Ram	10000	5000	Cameron
Pipe	10000	5000	Cameron

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 ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

OIL CONSERVATION DIVISION

Signature:			
Printed Name:	Electronically filed by Ava Monroe	Approved By:	Raymond Podany
Title:	Sr. Regulatory Analyst	Title:	Geologist
Email Address:	amonroe@matadorresources.com	Approved Date:	11/20/2019
Date:	11/18/2019	Phone:	972-371-5218
		Expiration Date: 11/20/2021	
Conditions of Approval Attached			

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ **AMENDED REPORT**

S:\SURVEY\MATADOR RESOURCES\RAY_STATE.COM 36-23S-28\FINAL PRODUCTS\ILO RAY STATE.COM 224H REV4.DWG 10/25/2019 1:56:12 PM irichardson

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GAS CAPTURE PLAN

Date: 11/20/2019

☒ Original

Operator & OGRID No.: [228937] MATADOR PRODUCTION COMPANY

☐ Amended - Reason for
Amendment: _____

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
RAY STATE COM #224H	30-015-46446	A-1-24S-28E	0981N 0317E	9	Flared	+/- 9000 MCF/D

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to LONGWOOD RB PIPELINE, LLC and will be connected to LONGWOOD RB PIPELINE, LLC High Pressure gathering system located in Eddy County, New Mexico. It will require 5280' of pipeline to connect the facility to High Pressure gathering system. MATADOR PRODUCTION COMPANY provides (periodically) to LONGWOOD RB PIPELINE, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, MATADOR PRODUCTION COMPANY and LONGWOOD RB PIPELINE, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at LONGWOOD RB PIPELINE, LLC Processing Plant located in Sec. 31, Twn. 23S, Rng. 28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

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Form APD Comments

Permit 274872

PERMIT COMMENTS

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240	API Number: 30-015-46446
	Well: RAY STATE COM #224H

Created By	Comment	Comment Date
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Form APD Conditions

Permit 274872

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240		API Number: 30-015-46446
		Well: RAY STATE COM #224H
OCD Reviewer	Condition	
rpodany	Will require a directional survey with the C-104	
rpodany	Cement is required to circulate on both surface and intermediate1 strings of casing	



Matador Resources Company

Eddy County, NM (NAD27-Grid)

Ray State Com

Ray State Com 224H

OH

Plan: Prelim B

Standard Planning Report

08 November, 2019





Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Ray State Com 224H
Company:	Matador Resources Company	TVD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Project:	Eddy County, NM (NAD27-Grid)	MD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Site:	Ray State Com	North Reference:	Grid
Well:	Ray State Com 224H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim B		

Project	Eddy County, NM (NAD27-Grid)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site		Ray State Com			
Site Position:		Northing:	455,390.00 usft	Latitude:	32.251627
From:	Map	Easting:	592,880.00 usft	Longitude:	-104.032893
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.16 °

Well	Ray State Com 224H					
Well Position	+N/-S	-46.00 usft	Northing:	455,344.00 usft	Latitude:	32.251500
	+E/-W	5.00 usft	Easting:	592,885.00 usft	Longitude:	-104.032877
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	2,962.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/1/2019	6.91	59.98	47,665.00502625

Design	Prelim B			
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	359.67

Plan Survey Tool Program	Date	11/8/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	21,057.97 Prelim B (OH)	MWD+HRGM	
			OWSG MWD + HRGM	

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	0.00	
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,558.51	9.59	342.79	4,554.04	76.41	-23.66	1.00	1.00	0.00	342.79	
10,399.35	9.59	342.79	10,313.34	1,005.44	-311.39	0.00	0.00	0.00	0.00	
11,214.18	90.00	10.00	10,800.00	1,570.00	-250.00	10.00	9.87	3.34	27.54	
11,954.18	90.00	10.00	10,800.00	2,298.76	-121.50	0.00	0.00	0.00	0.00	
12,450.20	90.00	0.08	10,800.00	2,792.24	-77.98	2.00	0.00	-2.00	-90.00	
21,057.97	90.00	0.08	10,800.00	11,400.00	-66.00	0.00	0.00	0.00	0.00	PBHL (RSC 224H)



Total Directional Services

Planning Report



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Company:	Matador Resources Company	TVD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Project:	Eddy County, NM (NAD27-Grid)	MD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Site:	Ray State Com	North Reference:	Grid
Well:	Ray State Com 224H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim B		

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
SHL (RSC 224H)									
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
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
1,400.00	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
1,700.00	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	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.00									
3,700.00	1.00	342.79	3,700.00	0.83	-0.26	0.84	1.00	1.00	0.00
3,800.00	2.00	342.79	3,799.96	3.33	-1.03	3.34	1.00	1.00	0.00
3,900.00	3.00	342.79	3,899.86	7.50	-2.32	7.51	1.00	1.00	0.00
4,000.00	4.00	342.79	3,999.68	13.33	-4.13	13.36	1.00	1.00	0.00
4,100.00	5.00	342.79	4,099.37	20.83	-6.45	20.86	1.00	1.00	0.00
4,200.00	6.00	342.79	4,198.90	29.98	-9.29	30.04	1.00	1.00	0.00
4,300.00	7.00	342.79	4,298.26	40.80	-12.63	40.87	1.00	1.00	0.00
4,400.00	8.00	342.79	4,397.40	53.26	-16.50	53.36	1.00	1.00	0.00
4,500.00	9.00	342.79	4,496.30	67.38	-20.87	67.50	1.00	1.00	0.00
4,558.51	9.59	342.79	4,554.04	76.41	-23.66	76.54	1.00	1.00	0.00
Start 5840.84 hold at 4558.51 MD									
4,600.00	9.59	342.79	4,594.96	83.01	-25.71	83.15	0.00	0.00	0.00
4,700.00	9.59	342.79	4,693.56	98.91	-30.63	99.09	0.00	0.00	0.00
4,800.00	9.59	342.79	4,792.16	114.82	-35.56	115.02	0.00	0.00	0.00



Total Directional Services

Planning Report



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Site:	Ray State Com	North Reference:	Grid
Well:	Ray State Com 224H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim B		

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)
4,900.00	9.59	342.79	4,890.77	130.72	-40.49	130.96	0.00	0.00	0.00
5,000.00	9.59	342.79	4,989.37	146.63	-45.41	146.89	0.00	0.00	0.00
5,100.00	9.59	342.79	5,087.98	162.54	-50.34	162.83	0.00	0.00	0.00
5,200.00	9.59	342.79	5,186.58	178.44	-55.26	178.76	0.00	0.00	0.00
5,300.00	9.59	342.79	5,285.18	194.35	-60.19	194.69	0.00	0.00	0.00
5,400.00	9.59	342.79	5,383.79	210.25	-65.12	210.63	0.00	0.00	0.00
5,500.00	9.59	342.79	5,482.39	226.16	-70.04	226.56	0.00	0.00	0.00
5,600.00	9.59	342.79	5,581.00	242.07	-74.97	242.50	0.00	0.00	0.00
5,700.00	9.59	342.79	5,679.60	257.97	-79.90	258.43	0.00	0.00	0.00
5,800.00	9.59	342.79	5,778.20	273.88	-84.82	274.36	0.00	0.00	0.00
5,900.00	9.59	342.79	5,876.81	289.78	-89.75	290.30	0.00	0.00	0.00
6,000.00	9.59	342.79	5,975.41	305.69	-94.67	306.23	0.00	0.00	0.00
6,100.00	9.59	342.79	6,074.02	321.60	-99.60	322.17	0.00	0.00	0.00
6,200.00	9.59	342.79	6,172.62	337.50	-104.53	338.10	0.00	0.00	0.00
6,300.00	9.59	342.79	6,271.22	353.41	-109.45	354.03	0.00	0.00	0.00
6,400.00	9.59	342.79	6,369.83	369.31	-114.38	369.97	0.00	0.00	0.00
6,500.00	9.59	342.79	6,468.43	385.22	-119.30	385.90	0.00	0.00	0.00
6,600.00	9.59	342.79	6,567.04	401.12	-124.23	401.84	0.00	0.00	0.00
6,700.00	9.59	342.79	6,665.64	417.03	-129.16	417.77	0.00	0.00	0.00
6,800.00	9.59	342.79	6,764.24	432.94	-134.08	433.71	0.00	0.00	0.00
6,900.00	9.59	342.79	6,862.85	448.84	-139.01	449.64	0.00	0.00	0.00
7,000.00	9.59	342.79	6,961.45	464.75	-143.94	465.57	0.00	0.00	0.00
7,100.00	9.59	342.79	7,060.05	480.65	-148.86	481.51	0.00	0.00	0.00
7,200.00	9.59	342.79	7,158.66	496.56	-153.79	497.44	0.00	0.00	0.00
7,300.00	9.59	342.79	7,257.26	512.47	-158.71	513.38	0.00	0.00	0.00
7,400.00	9.59	342.79	7,355.87	528.37	-163.64	529.31	0.00	0.00	0.00
7,500.00	9.59	342.79	7,454.47	544.28	-168.57	545.24	0.00	0.00	0.00
7,600.00	9.59	342.79	7,553.07	560.18	-173.49	561.18	0.00	0.00	0.00
7,700.00	9.59	342.79	7,651.68	576.09	-178.42	577.11	0.00	0.00	0.00
7,800.00	9.59	342.79	7,750.28	591.99	-183.34	593.05	0.00	0.00	0.00
7,900.00	9.59	342.79	7,848.89	607.90	-188.27	608.98	0.00	0.00	0.00
8,000.00	9.59	342.79	7,947.49	623.81	-193.20	624.91	0.00	0.00	0.00
8,100.00	9.59	342.79	8,046.09	639.71	-198.12	640.85	0.00	0.00	0.00
8,200.00	9.59	342.79	8,144.70	655.62	-203.05	656.78	0.00	0.00	0.00
8,300.00	9.59	342.79	8,243.30	671.52	-207.97	672.72	0.00	0.00	0.00
8,400.00	9.59	342.79	8,341.91	687.43	-212.90	688.65	0.00	0.00	0.00
8,500.00	9.59	342.79	8,440.51	703.34	-217.83	704.59	0.00	0.00	0.00
8,600.00	9.59	342.79	8,539.11	719.24	-222.75	720.52	0.00	0.00	0.00
8,700.00	9.59	342.79	8,637.72	735.15	-227.68	736.45	0.00	0.00	0.00
8,800.00	9.59	342.79	8,736.32	751.05	-232.61	752.39	0.00	0.00	0.00
8,900.00	9.59	342.79	8,834.93	766.96	-237.53	768.32	0.00	0.00	0.00
9,000.00	9.59	342.79	8,933.53	782.87	-242.46	784.26	0.00	0.00	0.00
9,100.00	9.59	342.79	9,032.13	798.77	-247.38	800.19	0.00	0.00	0.00
9,200.00	9.59	342.79	9,130.74	814.68	-252.31	816.12	0.00	0.00	0.00
9,300.00	9.59	342.79	9,229.34	830.58	-257.24	832.06	0.00	0.00	0.00
9,400.00	9.59	342.79	9,327.95	846.49	-262.16	847.99	0.00	0.00	0.00
9,500.00	9.59	342.79	9,426.55	862.39	-267.09	863.93	0.00	0.00	0.00
9,600.00	9.59	342.79	9,525.15	878.30	-272.01	879.86	0.00	0.00	0.00
9,700.00	9.59	342.79	9,623.76	894.21	-276.94	895.79	0.00	0.00	0.00
9,800.00	9.59	342.79	9,722.36	910.11	-281.87	911.73	0.00	0.00	0.00
9,900.00	9.59	342.79	9,820.97	926.02	-286.79	927.66	0.00	0.00	0.00
10,000.00	9.59	342.79	9,919.57	941.92	-291.72	943.60	0.00	0.00	0.00
10,100.00	9.59	342.79	10,018.17	957.83	-296.65	959.53	0.00	0.00	0.00
10,200.00	9.59	342.79	10,116.78	973.74	-301.57	975.47	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Ray State Com 224H
Company:	Matador Resources Company	TVD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Project:	Eddy County, NM (NAD27-Grid)	MD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Site:	Ray State Com	North Reference:	Grid
Well:	Ray State Com 224H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim B		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.00	9.59	342.79	10,215.38	989.64	-306.50	991.40	0.00	0.00	0.00
10,399.35	9.59	342.79	10,313.34	1,005.44	-311.39	1,007.23	0.00	0.00	0.00
Start DLS 10.00 TFO 27.54									
10,450.00	14.27	352.33	10,362.89	1,015.66	-313.47	1,017.46	10.00	9.25	18.82
10,500.00	19.08	357.10	10,410.78	1,029.94	-314.71	1,031.75	10.00	9.63	9.55
10,550.00	23.97	360.00	10,457.28	1,048.27	-315.12	1,050.08	10.00	9.77	5.79
10,600.00	28.89	1.96	10,502.04	1,070.51	-314.71	1,072.32	10.00	9.85	3.92
10,650.00	33.84	3.39	10,544.72	1,096.50	-313.48	1,098.30	10.00	9.89	2.86
10,700.00	38.79	4.49	10,585.00	1,126.03	-311.43	1,127.81	10.00	9.91	2.20
10,750.00	43.76	5.38	10,622.56	1,158.88	-308.58	1,160.65	10.00	9.93	1.77
10,800.00	48.73	6.11	10,657.13	1,194.80	-304.96	1,196.55	10.00	9.94	1.48
10,850.00	53.71	6.75	10,688.44	1,233.52	-300.58	1,235.24	10.00	9.95	1.27
10,900.00	58.69	7.31	10,716.24	1,274.74	-295.50	1,276.43	10.00	9.96	1.12
10,950.00	63.67	7.81	10,740.34	1,318.15	-289.73	1,319.81	10.00	9.96	1.00
11,000.00	68.65	8.27	10,760.55	1,363.42	-283.33	1,365.04	10.00	9.96	0.92
11,050.00	73.63	8.70	10,776.71	1,410.20	-276.35	1,411.78	10.00	9.97	0.86
11,100.00	78.62	9.11	10,788.69	1,458.14	-268.84	1,459.67	10.00	9.97	0.82
11,150.00	83.60	9.50	10,796.42	1,506.88	-260.85	1,508.36	10.00	9.97	0.79
11,200.00	88.59	9.89	10,799.83	1,556.03	-252.45	1,557.47	10.00	9.97	0.77
11,214.18	90.00	10.00	10,800.00	1,570.00	-250.00	1,571.42	10.00	9.97	0.77
Start 740.00 hold at 11214.18 MD - LP (RSC 224H)									
11,300.00	90.00	10.00	10,800.00	1,654.51	-235.10	1,655.85	0.00	0.00	0.00
11,400.00	90.00	10.00	10,800.00	1,752.99	-217.73	1,754.22	0.00	0.00	0.00
11,500.00	90.00	10.00	10,800.00	1,851.47	-200.37	1,852.60	0.00	0.00	0.00
11,600.00	90.00	10.00	10,800.00	1,949.95	-183.00	1,950.98	0.00	0.00	0.00
11,700.00	90.00	10.00	10,800.00	2,048.44	-165.64	2,049.36	0.00	0.00	0.00
11,800.00	90.00	10.00	10,800.00	2,146.92	-148.27	2,147.74	0.00	0.00	0.00
11,900.00	90.00	10.00	10,800.00	2,245.40	-130.91	2,246.12	0.00	0.00	0.00
11,954.18	90.00	10.00	10,800.00	2,298.76	-121.50	2,299.42	0.00	0.00	0.00
Start DLS 2.00 TFO -90.00									
12,000.00	90.00	9.08	10,800.00	2,343.94	-113.91	2,344.56	2.00	0.00	-2.00
12,100.00	90.00	7.08	10,800.00	2,442.94	-99.84	2,443.48	2.00	0.00	-2.00
12,200.00	90.00	5.08	10,800.00	2,542.37	-89.25	2,542.85	2.00	0.00	-2.00
12,300.00	90.00	3.08	10,800.00	2,642.11	-82.13	2,642.55	2.00	0.00	-2.00
12,400.00	90.00	1.08	10,800.00	2,742.04	-78.49	2,742.45	2.00	0.00	-2.00
12,450.20	90.00	0.08	10,800.00	2,792.24	-77.98	2,792.64	2.00	0.00	-2.00
Start 8607.77 hold at 12450.20 MD									
12,500.00	90.00	0.08	10,800.00	2,842.04	-77.91	2,842.44	0.00	0.00	0.00
12,600.00	90.00	0.08	10,800.00	2,942.04	-77.77	2,942.44	0.00	0.00	0.00
12,700.00	90.00	0.08	10,800.00	3,042.04	-77.63	3,042.44	0.00	0.00	0.00
12,800.00	90.00	0.08	10,800.00	3,142.04	-77.49	3,142.44	0.00	0.00	0.00
12,900.00	90.00	0.08	10,800.00	3,242.04	-77.35	3,242.43	0.00	0.00	0.00
13,000.00	90.00	0.08	10,800.00	3,342.04	-77.22	3,342.43	0.00	0.00	0.00
13,100.00	90.00	0.08	10,800.00	3,442.04	-77.08	3,442.43	0.00	0.00	0.00
13,200.00	90.00	0.08	10,800.00	3,542.04	-76.94	3,542.42	0.00	0.00	0.00
13,300.00	90.00	0.08	10,800.00	3,642.04	-76.80	3,642.42	0.00	0.00	0.00
13,400.00	90.00	0.08	10,800.00	3,742.04	-76.66	3,742.42	0.00	0.00	0.00
13,500.00	90.00	0.08	10,800.00	3,842.04	-76.52	3,842.42	0.00	0.00	0.00
13,600.00	90.00	0.08	10,800.00	3,942.04	-76.38	3,942.41	0.00	0.00	0.00
13,700.00	90.00	0.08	10,800.00	4,042.04	-76.24	4,042.41	0.00	0.00	0.00
13,800.00	90.00	0.08	10,800.00	4,142.04	-76.10	4,142.41	0.00	0.00	0.00
13,900.00	90.00	0.08	10,800.00	4,242.04	-75.96	4,242.41	0.00	0.00	0.00
14,000.00	90.00	0.08	10,800.00	4,342.04	-75.82	4,342.40	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Ray State Com 224H
Company:	Matador Resources Company	TVD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Project:	Eddy County, NM (NAD27-Grid)	MD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Site:	Ray State Com	North Reference:	Grid
Well:	Ray State Com 224H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim B		

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)
14,100.00	90.00	0.08	10,800.00	4,442.04	-75.68	4,442.40	0.00	0.00	0.00
14,200.00	90.00	0.08	10,800.00	4,542.04	-75.55	4,542.40	0.00	0.00	0.00
14,300.00	90.00	0.08	10,800.00	4,642.04	-75.41	4,642.40	0.00	0.00	0.00
14,400.00	90.00	0.08	10,800.00	4,742.04	-75.27	4,742.39	0.00	0.00	0.00
14,500.00	90.00	0.08	10,800.00	4,842.04	-75.13	4,842.39	0.00	0.00	0.00
14,600.00	90.00	0.08	10,800.00	4,942.04	-74.99	4,942.39	0.00	0.00	0.00
14,700.00	90.00	0.08	10,800.00	5,042.04	-74.85	5,042.39	0.00	0.00	0.00
14,800.00	90.00	0.08	10,800.00	5,142.04	-74.71	5,142.38	0.00	0.00	0.00
14,900.00	90.00	0.08	10,800.00	5,242.04	-74.57	5,242.38	0.00	0.00	0.00
15,000.00	90.00	0.08	10,800.00	5,342.04	-74.43	5,342.38	0.00	0.00	0.00
15,100.00	90.00	0.08	10,800.00	5,442.04	-74.29	5,442.38	0.00	0.00	0.00
15,200.00	90.00	0.08	10,800.00	5,542.04	-74.15	5,542.37	0.00	0.00	0.00
15,300.00	90.00	0.08	10,800.00	5,642.04	-74.01	5,642.37	0.00	0.00	0.00
15,400.00	90.00	0.08	10,800.00	5,742.04	-73.87	5,742.37	0.00	0.00	0.00
15,500.00	90.00	0.08	10,800.00	5,842.04	-73.74	5,842.37	0.00	0.00	0.00
15,600.00	90.00	0.08	10,800.00	5,942.04	-73.60	5,942.36	0.00	0.00	0.00
15,700.00	90.00	0.08	10,800.00	6,042.04	-73.46	6,042.36	0.00	0.00	0.00
15,800.00	90.00	0.08	10,800.00	6,142.04	-73.32	6,142.36	0.00	0.00	0.00
15,900.00	90.00	0.08	10,800.00	6,242.04	-73.18	6,242.36	0.00	0.00	0.00
16,000.00	90.00	0.08	10,800.00	6,342.04	-73.04	6,342.35	0.00	0.00	0.00
16,100.00	90.00	0.08	10,800.00	6,442.04	-72.90	6,442.35	0.00	0.00	0.00
16,200.00	90.00	0.08	10,800.00	6,542.04	-72.76	6,542.35	0.00	0.00	0.00
16,300.00	90.00	0.08	10,800.00	6,642.04	-72.62	6,642.34	0.00	0.00	0.00
16,400.00	90.00	0.08	10,800.00	6,742.04	-72.48	6,742.34	0.00	0.00	0.00
16,500.00	90.00	0.08	10,800.00	6,842.04	-72.34	6,842.34	0.00	0.00	0.00
16,600.00	90.00	0.08	10,800.00	6,942.04	-72.20	6,942.34	0.00	0.00	0.00
16,700.00	90.00	0.08	10,800.00	7,042.04	-72.07	7,042.33	0.00	0.00	0.00
16,800.00	90.00	0.08	10,800.00	7,142.04	-71.93	7,142.33	0.00	0.00	0.00
16,900.00	90.00	0.08	10,800.00	7,242.04	-71.79	7,242.33	0.00	0.00	0.00
17,000.00	90.00	0.08	10,800.00	7,342.04	-71.65	7,342.33	0.00	0.00	0.00
17,100.00	90.00	0.08	10,800.00	7,442.04	-71.51	7,442.32	0.00	0.00	0.00
17,200.00	90.00	0.08	10,800.00	7,542.03	-71.37	7,542.32	0.00	0.00	0.00
17,300.00	90.00	0.08	10,800.00	7,642.03	-71.23	7,642.32	0.00	0.00	0.00
17,400.00	90.00	0.08	10,800.00	7,742.03	-71.09	7,742.32	0.00	0.00	0.00
17,500.00	90.00	0.08	10,800.00	7,842.03	-70.95	7,842.31	0.00	0.00	0.00
17,600.00	90.00	0.08	10,800.00	7,942.03	-70.81	7,942.31	0.00	0.00	0.00
17,700.00	90.00	0.08	10,800.00	8,042.03	-70.67	8,042.31	0.00	0.00	0.00
17,800.00	90.00	0.08	10,800.00	8,142.03	-70.53	8,142.31	0.00	0.00	0.00
17,900.00	90.00	0.08	10,800.00	8,242.03	-70.40	8,242.30	0.00	0.00	0.00
18,000.00	90.00	0.08	10,800.00	8,342.03	-70.26	8,342.30	0.00	0.00	0.00
18,100.00	90.00	0.08	10,800.00	8,442.03	-70.12	8,442.30	0.00	0.00	0.00
18,200.00	90.00	0.08	10,800.00	8,542.03	-69.98	8,542.30	0.00	0.00	0.00
18,300.00	90.00	0.08	10,800.00	8,642.03	-69.84	8,642.29	0.00	0.00	0.00
18,400.00	90.00	0.08	10,800.00	8,742.03	-69.70	8,742.29	0.00	0.00	0.00
18,500.00	90.00	0.08	10,800.00	8,842.03	-69.56	8,842.29	0.00	0.00	0.00
18,600.00	90.00	0.08	10,800.00	8,942.03	-69.42	8,942.29	0.00	0.00	0.00
18,700.00	90.00	0.08	10,800.00	9,042.03	-69.28	9,042.28	0.00	0.00	0.00
18,800.00	90.00	0.08	10,800.00	9,142.03	-69.14	9,142.28	0.00	0.00	0.00
18,900.00	90.00	0.08	10,800.00	9,242.03	-69.00	9,242.28	0.00	0.00	0.00
19,000.00	90.00	0.08	10,800.00	9,342.03	-68.86	9,342.28	0.00	0.00	0.00
19,100.00	90.00	0.08	10,800.00	9,442.03	-68.73	9,442.27	0.00	0.00	0.00
19,200.00	90.00	0.08	10,800.00	9,542.03	-68.59	9,542.27	0.00	0.00	0.00
19,300.00	90.00	0.08	10,800.00	9,642.03	-68.45	9,642.27	0.00	0.00	0.00
19,400.00	90.00	0.08	10,800.00	9,742.03	-68.31	9,742.27	0.00	0.00	0.00



Total Directional Services

Planning Report



Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well Ray State Com 224H
Company:	Matador Resources Company	TVD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Project:	Eddy County, NM (NAD27-Grid)	MD Reference:	2962' GE + 28.5' KB @ 2990.50usft
Site:	Ray State Com	North Reference:	Grid
Well:	Ray State Com 224H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Prelim B		

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)
19,500.00	90.00	0.08	10,800.00	9,842.03	-68.17	9,842.26	0.00	0.00	0.00
19,600.00	90.00	0.08	10,800.00	9,942.03	-68.03	9,942.26	0.00	0.00	0.00
19,700.00	90.00	0.08	10,800.00	10,042.03	-67.89	10,042.26	0.00	0.00	0.00
19,800.00	90.00	0.08	10,800.00	10,142.03	-67.75	10,142.25	0.00	0.00	0.00
19,900.00	90.00	0.08	10,800.00	10,242.03	-67.61	10,242.25	0.00	0.00	0.00
20,000.00	90.00	0.08	10,800.00	10,342.03	-67.47	10,342.25	0.00	0.00	0.00
20,100.00	90.00	0.08	10,800.00	10,442.03	-67.33	10,442.25	0.00	0.00	0.00
20,200.00	90.00	0.08	10,800.00	10,542.03	-67.19	10,542.24	0.00	0.00	0.00
20,300.00	90.00	0.08	10,800.00	10,642.03	-67.05	10,642.24	0.00	0.00	0.00
20,400.00	90.00	0.08	10,800.00	10,742.03	-66.92	10,742.24	0.00	0.00	0.00
20,500.00	90.00	0.08	10,800.00	10,842.03	-66.78	10,842.24	0.00	0.00	0.00
20,600.00	90.00	0.08	10,800.00	10,942.03	-66.64	10,942.23	0.00	0.00	0.00
20,700.00	90.00	0.08	10,800.00	11,042.03	-66.50	11,042.23	0.00	0.00	0.00
20,800.00	90.00	0.08	10,800.00	11,142.03	-66.36	11,142.23	0.00	0.00	0.00
20,900.00	90.00	0.08	10,800.00	11,242.03	-66.22	11,242.23	0.00	0.00	0.00
21,000.00	90.00	0.08	10,800.00	11,342.03	-66.08	11,342.22	0.00	0.00	0.00
21,057.97	90.00	0.08	10,800.00	11,400.00	-66.00	11,400.19	0.00	0.00	0.00
TD at 21057.97 - PBHL (RSC 224H)									

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
SHL (RSC 224H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	455,344.00	592,885.00	32.251500	-104.032877
PBHL (RSC 224H) - plan hits target center - Point	0.00	0.00	10,800.00	11,400.00	-66.00	466,744.00	592,819.00	32.282839	-104.032987
LP (RSC 224H) - plan hits target center - Point	0.00	0.00	10,800.00	1,570.00	-250.00	456,914.00	592,635.00	32.255818	-104.033672

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
3,600.00	3,600.00	0.00	0.00	Start Build 1.00
4,558.51	4,554.04	76.41	-23.66	Start 5840.84 hold at 4558.51 MD
10,399.35	10,313.34	1,005.44	-311.39	Start DLS 10.00 TFO 27.54
11,214.18	10,800.00	1,570.00	-250.00	Start 740.00 hold at 11214.18 MD
11,954.18	10,800.00	2,298.76	-121.50	Start DLS 2.00 TFO -90.00
12,450.20	10,800.00	2,792.24	-77.98	Start 8607.77 hold at 12450.20 MD
21,057.97	10,800.00	11,400.00	-66.00	TD at 21057.97