

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 369085

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 30-025-53206
4. Property Code 336085	5. Property Name CHARLIE KS STATE COM	6. Well No. 148H

7. Surface Location

UL - Lot P	Section 6	Township 22S	Range 33E	Lot Idn P	Feet From 601	N/S Line S	Feet From 842	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot I	Section 30	Township 21S	Range 33E	Lot Idn I	Feet From 2529	N/S Line S	Feet From 792	E/W Line E	County Lea
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9. Pool Information

WC-025 G-07 S213330F;BONE SPRING	97927
LEGG;BONE SPRING	37870

Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3618
16. Multiple Y	17. Proposed Depth 23345	18. Formation Bone Spring	19. Contractor	20. Spud Date 7/24/2024
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	17.5	13.375	54.5	1075	685	0
Int1	9.875	7.625	29.7	9814	952	0
Prod	6.75	5.5	20	23345	923	9614

Casing/Cement Program: Additional Comments

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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. Signature: <table style="width: 100%;"><tr><td>Printed Name:</td><td>Electronically filed by Brett A Jennings</td></tr><tr><td>Title:</td><td>Regulatory Analyst</td></tr><tr><td>Email Address:</td><td>brett.jennings@matadorresources.com</td></tr><tr><td>Date:</td><td>7/8/2024</td></tr></table> Phone: 972-629-2160	Printed Name:	Electronically filed by Brett A Jennings	Title:	Regulatory Analyst	Email Address:	brett.jennings@matadorresources.com	Date:	7/8/2024	OIL CONSERVATION DIVISION <table style="width: 100%;"><tr><td>Approved By:</td><td>Paul F Kautz</td></tr><tr><td>Title:</td><td>Geologist</td></tr><tr><td>Approved Date:</td><td>7/16/2024</td></tr><tr><td>Expiration Date:</td><td>7/16/2026</td></tr></table> Conditions of Approval Attached	Approved By:	Paul F Kautz	Title:	Geologist	Approved Date:	7/16/2024	Expiration Date:	7/16/2026
Printed Name:	Electronically filed by Brett A Jennings																
Title:	Regulatory Analyst																
Email Address:	brett.jennings@matadorresources.com																
Date:	7/8/2024																
Approved By:	Paul F Kautz																
Title:	Geologist																
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Expiration Date:	7/16/2026																

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Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number	² Pool Code	³ Pool Name
	97927	WC-025 G-07 5213330F Bone Spring
⁴ Property Code	⁵ Property Name	⁶ Well Number
	CHARLIE KS STATE COM	148H
⁷ GRID No.	⁸ Operator Name	⁹ Elevation
228937	MATADOR PRODUCTION COMPANY	3618'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	6	22-S	33-E	-	601'	SOUTH	842'	EAST	LEA

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	30	21-S	33-E	-	2529'	SOUTH	792'	EAST	LEA

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
400.03			

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.

	NEW MEXICO EAST NAD 1983 <u>SURFACE LOCATION (SHL)</u> 601' FSL - SEC. 6 842' FEL - SEC. 6 X=765835 Y=515571 LAT.: N 32.4152700 LONG.: W 103.6058305 <u>KICK OFF POINT (KOP)</u> 50' FSL - SEC. 6 792' FEL - SEC. 6 X=765888 Y=515019 LAT.: N 32.4137543 LONG.: W 103.6056697 <u>FIRST PERFORATION POINT (FPP)</u> 100' FSL - SEC. 6 792' FEL - SEC. 6 X=765888 Y=515069 LAT.: N 32.4138917 LONG.: W 103.6056696 <u>LAST PERFORATION POINT (LPP)</u> <u>BOTTOM HOLE LOCATION (BHL)</u> 2529' FSL - SEC. 30 792' FEL - SEC. 30 X=765792 Y=528053 LAT.: N 32.4495794 LONG.: W 103.6056953	¹⁷OPERATOR 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 undivided mineral interest in the land including the proposed bottom hole location or has a right to drill that well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>D.W.J.</i> Date: <i>06/20/24</i> Printed Name: <i>David W. Johns</i> E-mail Address: <i>djohns@matadorresources.com</i>
	T-21-S, R-33-E SECTION 30 LOT 1 - 36.14 ACRES LOT 2 - 36.14 ACRES LOT 3 - 36.14 ACRES LOT 4 - 36.14 ACRES SECTION 31 LOT 1 - 36.17 ACRES LOT 2 - 36.24 ACRES LOT 3 - 36.30 ACRES LOT 4 - 36.37 ACRES T-22-S, R-33-E SECTION 6 LOT 1 - 40.03 ACRES LOT 2 - 40.03 ACRES LOT 3 - 40.01 ACRES LOT 4 - 36.39 ACRES LOT 5 - 36.37 ACRES LOT 6 - 36.35 ACRES LOT 7 - 36.33 ACRES	¹⁸SURVEYOR 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 to the best of my belief. 05/15/2024 Date of Survey Signature and Seal of Professional Surveyor Certificate Number NEW MEXICO EAST NAD 1927 <u>SURFACE LOCATION (SHL)</u> X=724650 Y=515510 LAT.: N 32.415489 LONG.: W 103.6053443 <u>KICK OFF POINT (KOP)</u> X=724705 Y=514959 LAT.: N 32.4126311 LONG.: W 103.6051636 <u>FIRST PERFORATION POINT (FPP)</u> X=724705 Y=515008 LAT.: N 32.4137686 LONG.: W 103.6051635 <u>LAST PERFORATION POINT (LPP)</u> X=724810 Y=527992 LAT.: N 32.4494563 LONG.: W 103.6052279

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1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 37870		³ Pool Name Lessa; Bone Spring	
⁴ Property Code		⁵ Property Name CHARLIE KS STATE COM		⁶ Well Number 148H	
⁷ OGRID No. 228937		⁸ Operator Name MATADOR PRODUCTION COMPANY		⁹ Elevation 3618'	
¹⁰ Surface Location					
UL or lot no. P	Section 6	Township 22-S	Range 33-E	Lot Idn -	Feet from the 601'
					North/South line SOUTH
					Feet from the 842'
					East/West line EAST
					County LEA
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. I	Section 30	Township 21-S	Range 33-E	Lot Idn -	Feet from the 2529'
					North/South line SOUTH
					Feet from the 792'
					East/West line EAST
					County LEA
¹² Dedicated Acres 400.03		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

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¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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DETAIL VIEW SCALE: 1" = 500'	NEW MEXICO EAST NAD 1983 <u>SURFACE LOCATION (SHL)</u> 601' FSL - SEC. 6 842' FEL - SEC. 6 X=765835 Y=515571 LAT.: N 32.4152700 LONG.: W 103.6058305 <u>KICK OFF POINT (KOP)</u> 50' FSL - SEC. 6 792' FEL - SEC. 6 X=765888 Y=515019 LAT.: N 32.4137543 LONG.: W 103.6056697 <u>FIRST PERFORATION POINT (FPP)</u> 100' FSL - SEC. 6 792' FEL - SEC. 6 X=765888 Y=515069 LAT.: N 32.4138917 LONG.: W 103.6056696 <u>LAST PERFORATION POINT (LPP)</u> <u>BOTTOM HOLE LOCATION (BHL)</u> 2529' FSL - SEC. 30 792' FEL - SEC. 30 X=765792 Y=528053 LAT.: N 32.4495794 LONG.: W 103.6056953	¹⁷OPERATOR 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 undivided mineral interest in the land including the proposed bottom hole location or has a right to drill that well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature: <i>D.W.J.</i> Date: <i>06/20/24</i> Printed Name: <i>David W. Johns</i> E-mail Address: <i>djohns@matadorresources.com</i>
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⁴ Property Code		⁵ Property Name CHARLIE KS STATE COM		⁶ Well Number 148H	
⁷ OGRID No. 228937		⁸ Operator Name MATADOR PRODUCTION COMPANY		⁹ Elevation 3618'	
¹⁰ Surface Location					
UL or lot no. P	Section 6	Township 22-S	Range 33-E	Lot Idn -	Feet from the 601'
					North/South line SOUTH
					Feet from the 842'
					East/West line EAST
					County LEA
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. I	Section 30	Township 21-S	Range 33-E	Lot Idn -	Feet from the 2529'
					North/South line SOUTH
					Feet from the 792'
					East/West line EAST
					County LEA
¹² Dedicated Acres 400.03		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

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1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 369085

PERMIT COMMENTS

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240		API Number: 30-025-53206
		Well: CHARLIE KS STATE COM #148H
Created By	Comment	Comment Date
pkautz	Fee Cancellation - RETURNED AT REQUEST OF OPERATOR.	7/2/2024

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Form APD Conditions

Permit 369085

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240	API Number: 30-025-53206
	Well: CHARLIE KS STATE COM #148H

OCD Reviewer	Condition
pkautz	Pit construction and closure must satisfy all requirements of your approved plan
pkautz	If using a pit for drilling and completion operations, must have an approved pit from prior to spudding the well
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	IF USING CLOSE LOOP MUST SUBMIT CHANGE OF PLANS STATEING YOU ARE USING CLOSE LOOP.

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: Matador Production Company **OGRID:** 228937 **Date:** 06/26/2024

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
Charlie KS State Com #147H	TBD	Lot O-6-22S-33E	442' FSL & 2,148' FEL	900	1,400	2,500
Charlie KS State Com #148H	TBD	Lot P-6-22S-33E	601' FSL & 842' FEL	900	1,400	2,500
Paul Flowers State Com #145H	TBD	Lot 7-6-22S-33E	472' FSL & 879' FWL	800	1,000	2,000
Paul Flowers State Com #146H	TBD	Lot O-6-22S-33E	472' FSL & 2,178' FEL	800	1,000	2,000

IV. Central Delivery Point Name: Paul Flowers TB [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
Charlie KS State Com #147H	TBD	10/03/2025	10/31/2025	12/06/2025	02/03/2026	02/03/2026
Charlie KS State Com #148H	TBD	08/06/2025	09/01/2025	10/02/2025	12/03/2025	12/03/2025
Paul Flowers State Com #145H	TBD	06/01/2025	06/27/2025	09/09/2025	11/10/2025	11/10/2025
Paul Flowers State Com #146H	TBD	09/06/2025	10/02/2025	12/15/2025	01/31/2026	01/31/2026

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: Oscar Gonzalez
Title: Production Engineer
E-mail Address: ogonzalez@matadorresources.com
Date: 06/26/2024
Phone: 972 – 629 – 2147
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Addendum to Natural Gas Management Plan for Matador's

Charlie KS State Com #147H, Charlie KS State Com #148H, Paul Flowers State Com #145H, Paul Flowers State Com #146H

VI. Separation Equipment

Flow from the wells will be routed via a flowline to a 48"x15' three phase separator dedicated to the well. The first stage separators are sized with input from BRE ProMax and API 12J. Anticipated production rates can be seen in the below table. Liquid retention times at expected maximum rates will be >3 minutes. Gas will be routed from the first stage separator to sales. Hydrocarbon liquids are dumped from the first stage separator and commingled to one or more heater treaters. The flash gas from the heater treater(s) could either be sent to sales or routed to a compressor if the sales line pressure is higher than the MAWP of the heater treater (125 psi). From the heater treaters, hydrocarbon liquid will be routed to the tanks where vapor is compressed by a VRU if technically feasible to either sales or a compressor if the sales line pressure is higher than the VRU's maximum discharge pressure (~150 psi). Therefore, Matador has sized our separation equipment to optimize gas capture and our separation equipment is of sufficient size to handle the expected volumes of gas.

Well Name	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Charlie KS State Com #147H	900	1,400	2,500
Charlie KS State Com #148H	900	1,400	2,500
Paul Flowers State Com #145H	800	1,000	2,000
Paul Flowers State Com #146H	800	1,000	2,000

VII. Operation Practices

Although not a complete recitation of all our efforts to comply with a subsection A through F of 19.15.27.8 NMAC, a summary is as follows. During drilling, Matador will have a properly sized flare stack at least 100 feet from the nearest surface hole. During initial flowback we will route the flowback fluids into completion or storage tanks and, to the extent possible, flare rather than vent any gas. We will commence operation of a separator as soon as technically feasible, and have instructed our team that we want to connect the gas to sales as soon as possible but not later than 30 days after initial flowback.

Regarding production operations, we have designed our production facilities to be compliant with the requirements of Part E of 19.15.27.8 NMAC. We will instruct our team to perform the AVOs on the frequency required under the rules. While the well is producing, we will take steps to minimize flaring during maintenance, as set forth below, and we have a process in place for the measuring of any flared gas and the reporting of any reportable flaring events.

VII. Best Management Practices

Steps are taken to minimize venting during active or planned maintenance when technically feasible including:

- Isolating the affected component and reducing pressure through process piping
- Blowing down the equipment being maintained to a control device
- Performing preventative maintenance and minimizing the duration of maintenance activities
- Shutting in sources of supply as possible
- Other steps that are available depending on the maintenance being performed

Well Name: Charlie KS State Com #148H										
STRING	FLUID TYPE	HOLE SZ	CSG SZ	CSG GRADE	CSG WT	DEPTH SET	TOP CSG	TTL SX CEMENT	EST TOC	ADDITIONAL INFO FOR CSG/CMT PROGRAM (Optional)
SURF	FRESH WTR	17.5	13.375	J-55	54.50	1075	0	685	0	Option to drill surface hole with surface setting rig
INT 1	Diesel Brine Emulsion	9.875	7.625	P-110	29.70	9814	0	952	0	Option to run DV tool and Packer.
PROD	OBM	6.75	5.5	P-110	20.00	23345	0	923	9614	

Matador Production Company

Antelope Ridge

Paul Flowers / Charlie KS

Charlie KS State Com #148H

Wellbore #1

Plan: State Plan #1

Standard Planning Report

21 June, 2024

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Charlie KS State Com #148H
Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Project	Antelope Ridge		
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		Using geodetic scale factor

Site	Paul Flowers / Charlie KS		
Site Position:		Northing:	515,361.55 usft
From:	Lat/Long	Easting:	721,245.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 24' 53.290 N
		Longitude:	103° 36' 59.001 W
		Grid Convergence:	0.38 °

Well	Charlie KS State Com #148H		
Well Position	+N/-S	148.2 usft	Northing:
	+E/-W	3,407.7 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	
		Latitude:	32° 24' 54.529 N
		Longitude:	103° 36' 19.239 W
		Ground Level:	3,618.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/5/2024	6.22	60.14	47,328.69698645

Design	State Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.57

Plan Survey Tool Program		Date	6/21/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	23,345.2	State Plan #1 (Wellbore #1)	MWD	
			OWSG MWD - Standard		

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,720.2	4.40	174.46	2,719.9	-8.4	0.8	2.00	2.00	0.00	174.46	
9,671.0	4.40	174.46	9,650.2	-539.6	52.3	0.00	0.00	0.00	0.00	
9,964.5	0.00	0.00	9,943.5	-550.8	53.4	1.50	-1.50	0.00	180.00	KOP - Charlie KS Sta
10,864.5	90.00	359.62	10,516.5	22.1	49.6	10.00	10.00	0.00	359.62	
10,866.8	90.00	359.57	10,516.5	24.4	49.6	2.00	-0.01	-2.00	-90.24	
16,070.8	90.00	359.57	10,516.5	5,228.3	10.9	0.00	0.00	0.00	0.00	DP1 - Charlie KS Stat
16,575.9	79.90	359.57	10,560.9	5,730.8	7.2	2.00	-2.00	0.00	180.00	
17,586.1	79.90	359.57	10,738.1	6,725.3	-0.2	0.00	0.00	0.00	0.00	
18,091.3	90.00	359.57	10,782.5	7,227.8	-4.0	2.00	2.00	0.00	0.00	DP2 - Charlie KS Stat
23,345.2	90.00	359.57	10,782.5	12,481.6	-43.0	0.00	0.00	0.00	0.00	BHL - Charlie KS Stat

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Charlie KS State Com #148H
Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,065.0	0.00	0.00	1,065.0	0.0	0.0	0.0	0.00	0.00	0.00
Z (Rustler)									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,397.0	0.00	0.00	1,397.0	0.0	0.0	0.0	0.00	0.00	0.00
Z (Salado)									
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	174.46	2,600.0	-1.7	0.2	-1.7	2.00	2.00	0.00
2,700.0	4.00	174.46	2,699.8	-6.9	0.7	-7.0	2.00	2.00	0.00
2,720.2	4.40	174.46	2,719.9	-8.4	0.8	-8.4	2.00	2.00	0.00
Start 6950.8 hold at 2720.2 MD									
2,800.0	4.40	174.46	2,799.5	-14.5	1.4	-14.5	0.00	0.00	0.00
2,900.0	4.40	174.46	2,899.3	-22.2	2.1	-22.2	0.00	0.00	0.00
3,000.0	4.40	174.46	2,999.0	-29.8	2.9	-29.8	0.00	0.00	0.00
3,100.0	4.40	174.46	3,098.7	-37.4	3.6	-37.5	0.00	0.00	0.00
3,200.0	4.40	174.46	3,198.4	-45.1	4.4	-45.1	0.00	0.00	0.00
3,300.0	4.40	174.46	3,298.1	-52.7	5.1	-52.8	0.00	0.00	0.00
3,400.0	4.40	174.46	3,397.8	-60.4	5.9	-60.4	0.00	0.00	0.00
3,500.0	4.40	174.46	3,497.5	-68.0	6.6	-68.1	0.00	0.00	0.00
3,600.0	4.40	174.46	3,597.2	-75.7	7.3	-75.7	0.00	0.00	0.00
3,700.0	4.40	174.46	3,696.9	-83.3	8.1	-83.4	0.00	0.00	0.00
3,800.0	4.40	174.46	3,796.6	-90.9	8.8	-91.0	0.00	0.00	0.00
3,900.0	4.40	174.46	3,896.3	-98.6	9.6	-98.6	0.00	0.00	0.00
4,000.0	4.40	174.46	3,996.0	-106.2	10.3	-106.3	0.00	0.00	0.00
4,100.0	4.40	174.46	4,095.7	-113.9	11.0	-113.9	0.00	0.00	0.00
4,200.0	4.40	174.46	4,195.4	-121.5	11.8	-121.6	0.00	0.00	0.00
4,300.0	4.40	174.46	4,295.1	-129.1	12.5	-129.2	0.00	0.00	0.00
4,400.0	4.40	174.46	4,394.8	-136.8	13.3	-136.9	0.00	0.00	0.00
4,500.0	4.40	174.46	4,494.5	-144.4	14.0	-144.5	0.00	0.00	0.00
4,600.0	4.40	174.46	4,594.2	-152.1	14.7	-152.2	0.00	0.00	0.00

Planning Report

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Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #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)
4,683.0	4.40	174.46	4,677.0	-158.4	15.4	-158.5	0.00	0.00	0.00
Z (G30:CS14-CSB)									
4,700.0	4.40	174.46	4,693.9	-159.7	15.5	-159.8	0.00	0.00	0.00
4,800.0	4.40	174.46	4,793.6	-167.4	16.2	-167.5	0.00	0.00	0.00
4,816.4	4.40	174.46	4,810.0	-168.6	16.3	-168.7	0.00	0.00	0.00
Z (G26: Bell Cyn.)									
4,900.0	4.40	174.46	4,893.3	-175.0	17.0	-175.1	0.00	0.00	0.00
5,000.0	4.40	174.46	4,993.1	-182.6	17.7	-182.8	0.00	0.00	0.00
5,100.0	4.40	174.46	5,092.8	-190.3	18.4	-190.4	0.00	0.00	0.00
5,200.0	4.40	174.46	5,192.5	-197.9	19.2	-198.1	0.00	0.00	0.00
5,300.0	4.40	174.46	5,292.2	-205.6	19.9	-205.7	0.00	0.00	0.00
5,400.0	4.40	174.46	5,391.9	-213.2	20.7	-213.4	0.00	0.00	0.00
5,500.0	4.40	174.46	5,491.6	-220.8	21.4	-221.0	0.00	0.00	0.00
5,600.0	4.40	174.46	5,591.3	-228.5	22.1	-228.6	0.00	0.00	0.00
5,700.0	4.40	174.46	5,691.0	-236.1	22.9	-236.3	0.00	0.00	0.00
5,800.0	4.40	174.46	5,790.7	-243.8	23.6	-243.9	0.00	0.00	0.00
5,900.0	4.40	174.46	5,890.4	-251.4	24.4	-251.6	0.00	0.00	0.00
5,995.9	4.40	174.46	5,986.0	-258.7	25.1	-258.9	0.00	0.00	0.00
Z (G13: Cherry Cyn.)									
6,000.0	4.40	174.46	5,990.1	-259.1	25.1	-259.2	0.00	0.00	0.00
6,100.0	4.40	174.46	6,089.8	-266.7	25.8	-266.9	0.00	0.00	0.00
6,200.0	4.40	174.46	6,189.5	-274.3	26.6	-274.5	0.00	0.00	0.00
6,300.0	4.40	174.46	6,289.2	-282.0	27.3	-282.2	0.00	0.00	0.00
6,400.0	4.40	174.46	6,388.9	-289.6	28.1	-289.8	0.00	0.00	0.00
6,500.0	4.40	174.46	6,488.6	-297.3	28.8	-297.5	0.00	0.00	0.00
6,600.0	4.40	174.46	6,588.3	-304.9	29.6	-305.1	0.00	0.00	0.00
6,700.0	4.40	174.46	6,688.0	-312.5	30.3	-312.8	0.00	0.00	0.00
6,800.0	4.40	174.46	6,787.7	-320.2	31.0	-320.4	0.00	0.00	0.00
6,900.0	4.40	174.46	6,887.4	-327.8	31.8	-328.1	0.00	0.00	0.00
7,000.0	4.40	174.46	6,987.2	-335.5	32.5	-335.7	0.00	0.00	0.00
7,045.0	4.40	174.46	7,032.0	-338.9	32.8	-339.1	0.00	0.00	0.00
Z (G7: Brushy Cyn.) Antelope Ridge									
7,100.0	4.40	174.46	7,086.9	-343.1	33.3	-343.4	0.00	0.00	0.00
7,200.0	4.40	174.46	7,186.6	-350.8	34.0	-351.0	0.00	0.00	0.00
7,300.0	4.40	174.46	7,286.3	-358.4	34.7	-358.6	0.00	0.00	0.00
7,400.0	4.40	174.46	7,386.0	-366.0	35.5	-366.3	0.00	0.00	0.00
7,500.0	4.40	174.46	7,485.7	-373.7	36.2	-373.9	0.00	0.00	0.00
7,600.0	4.40	174.46	7,585.4	-381.3	37.0	-381.6	0.00	0.00	0.00
7,700.0	4.40	174.46	7,685.1	-389.0	37.7	-389.2	0.00	0.00	0.00
7,800.0	4.40	174.46	7,784.8	-396.6	38.4	-396.9	0.00	0.00	0.00
7,900.0	4.40	174.46	7,884.5	-404.2	39.2	-404.5	0.00	0.00	0.00
8,000.0	4.40	174.46	7,984.2	-411.9	39.9	-412.2	0.00	0.00	0.00
8,100.0	4.40	174.46	8,083.9	-419.5	40.7	-419.8	0.00	0.00	0.00
8,200.0	4.40	174.46	8,183.6	-427.2	41.4	-427.5	0.00	0.00	0.00
8,300.0	4.40	174.46	8,283.3	-434.8	42.1	-435.1	0.00	0.00	0.00
8,400.0	4.40	174.46	8,383.0	-442.5	42.9	-442.8	0.00	0.00	0.00
8,424.1	4.40	174.46	8,407.0	-444.3	43.1	-444.6	0.00	0.00	0.00
G5: L. Brushy Cyn.									
8,500.0	4.40	174.46	8,482.7	-450.1	43.6	-450.4	0.00	0.00	0.00
8,600.0	4.40	174.46	8,582.4	-457.7	44.4	-458.1	0.00	0.00	0.00
8,671.8	4.40	174.46	8,654.0	-463.2	44.9	-463.5	0.00	0.00	0.00
Z (G4: BSG L (CS9))									
8,700.0	4.40	174.46	8,682.1	-465.4	45.1	-465.7	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Charlie KS State Com #148H
Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #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)
8,800.0	4.40	174.46	8,781.8	-473.0	45.8	-473.4	0.00	0.00	0.00
8,900.0	4.40	174.46	8,881.5	-480.7	46.6	-481.0	0.00	0.00	0.00
9,000.0	4.40	174.46	8,981.2	-488.3	47.3	-488.6	0.00	0.00	0.00
9,100.0	4.40	174.46	9,081.0	-495.9	48.1	-496.3	0.00	0.00	0.00
9,200.0	4.40	174.46	9,180.7	-503.6	48.8	-503.9	0.00	0.00	0.00
9,300.0	4.40	174.46	9,280.4	-511.2	49.5	-511.6	0.00	0.00	0.00
9,303.6	4.40	174.46	9,284.0	-511.5	49.6	-511.9	0.00	0.00	0.00
L8.2: U. Avalon Shale									
9,400.0	4.40	174.46	9,380.1	-518.9	50.3	-519.2	0.00	0.00	0.00
9,479.2	4.40	174.46	9,459.0	-524.9	50.9	-525.3	0.00	0.00	0.00
L6.3: Avalon Carb									
9,500.0	4.40	174.46	9,479.8	-526.5	51.0	-526.9	0.00	0.00	0.00
9,600.0	4.40	174.46	9,579.5	-534.2	51.8	-534.5	0.00	0.00	0.00
9,671.0	4.40	174.46	9,650.2	-539.6	52.3	-540.0	0.00	0.00	0.00
Start Drop -1.50									
9,700.0	3.97	174.46	9,679.2	-541.7	52.5	-542.1	1.50	-1.50	0.00
9,709.8	3.82	174.46	9,689.0	-542.4	52.6	-542.7	1.50	-1.50	0.00
Z (L5.3: FBSC)									
9,800.0	2.47	174.46	9,779.0	-547.3	53.0	-547.7	1.50	-1.50	0.00
9,880.7	1.26	174.46	9,859.7	-549.9	53.3	-550.3	1.50	-1.50	0.00
Z (L5.1: FBSCG)									
9,900.0	0.97	174.46	9,879.0	-550.3	53.3	-550.6	1.50	-1.50	0.00
9,964.5	0.00	0.00	9,943.5	-550.8	53.4	-551.2	1.50	-1.50	0.00
Start Build 10.00 - KOP - Charlie KS State Com #148H									
10,000.0	3.55	359.62	9,979.0	-549.7	53.4	-550.1	10.00	10.00	0.00
10,100.0	13.55	359.62	10,077.7	-534.9	53.3	-535.2	10.00	10.00	0.00
10,148.3	18.38	359.62	10,124.1	-521.6	53.2	-522.0	10.00	10.00	0.00
Z (L4.3: SBSC)									
10,200.0	23.55	359.62	10,172.4	-503.1	53.1	-503.5	10.00	10.00	0.00
10,300.0	33.55	359.62	10,260.1	-455.4	52.7	-455.7	10.00	10.00	0.00
10,400.0	43.55	359.62	10,338.2	-393.1	52.3	-393.5	10.00	10.00	0.00
10,437.4	47.28	359.62	10,364.5	-366.5	52.2	-366.9	10.00	10.00	0.00
FTP - Charlie KS State Com #148H									
10,500.0	53.55	359.62	10,404.4	-318.3	51.8	-318.7	10.00	10.00	0.00
10,600.0	63.55	359.62	10,456.5	-233.1	51.3	-233.5	10.00	10.00	0.00
10,700.0	73.55	359.62	10,493.0	-140.1	50.7	-140.5	10.00	10.00	0.00
10,735.8	77.13	359.62	10,502.1	-105.5	50.4	-105.9	10.00	10.00	0.00
Z (L4.1: SBSG)									
10,800.0	83.55	359.62	10,512.8	-42.2	50.0	-42.6	10.00	10.00	0.00
10,864.5	90.00	359.62	10,516.5	22.1	49.6	21.8	10.00	10.00	0.00
Start DLS 2.00 TFO -90.24									
10,866.8	90.00	359.57	10,516.5	24.4	49.6	24.1	2.00	-0.01	-2.00
Start 5204.0 hold at 10866.8 MD									
10,900.0	90.00	359.57	10,516.5	57.6	49.3	57.3	0.00	0.00	0.00
11,000.0	90.00	359.57	10,516.5	157.6	48.6	157.3	0.00	0.00	0.00
11,100.0	90.00	359.57	10,516.5	257.6	47.8	257.3	0.00	0.00	0.00
11,200.0	90.00	359.57	10,516.5	357.6	47.1	357.3	0.00	0.00	0.00
11,300.0	90.00	359.57	10,516.5	457.6	46.3	457.3	0.00	0.00	0.00
11,400.0	90.00	359.57	10,516.5	557.6	45.6	557.3	0.00	0.00	0.00
11,500.0	90.00	359.57	10,516.5	657.6	44.9	657.3	0.00	0.00	0.00
11,600.0	90.00	359.57	10,516.5	757.6	44.1	757.3	0.00	0.00	0.00
11,700.0	90.00	359.57	10,516.5	857.6	43.4	857.3	0.00	0.00	0.00
11,800.0	90.00	359.57	10,516.5	957.6	42.6	957.3	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Charlie KS State Com #148H
Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #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)
11,900.0	90.00	359.57	10,516.5	1,057.6	41.9	1,057.3	0.00	0.00	0.00
12,000.0	90.00	359.57	10,516.5	1,157.6	41.1	1,157.3	0.00	0.00	0.00
12,100.0	90.00	359.57	10,516.5	1,257.6	40.4	1,257.3	0.00	0.00	0.00
12,200.0	90.00	359.57	10,516.5	1,357.6	39.7	1,357.3	0.00	0.00	0.00
12,300.0	90.00	359.57	10,516.5	1,457.6	38.9	1,457.3	0.00	0.00	0.00
12,400.0	90.00	359.57	10,516.5	1,557.6	38.2	1,557.3	0.00	0.00	0.00
12,500.0	90.00	359.57	10,516.5	1,657.6	37.4	1,657.3	0.00	0.00	0.00
12,600.0	90.00	359.57	10,516.5	1,757.6	36.7	1,757.3	0.00	0.00	0.00
12,700.0	90.00	359.57	10,516.5	1,857.6	35.9	1,857.3	0.00	0.00	0.00
12,800.0	90.00	359.57	10,516.5	1,957.6	35.2	1,957.3	0.00	0.00	0.00
12,900.0	90.00	359.57	10,516.5	2,057.6	34.5	2,057.3	0.00	0.00	0.00
13,000.0	90.00	359.57	10,516.5	2,157.6	33.7	2,157.3	0.00	0.00	0.00
13,100.0	90.00	359.57	10,516.5	2,257.6	33.0	2,257.3	0.00	0.00	0.00
13,200.0	90.00	359.57	10,516.5	2,357.6	32.2	2,357.3	0.00	0.00	0.00
13,300.0	90.00	359.57	10,516.5	2,457.6	31.5	2,457.3	0.00	0.00	0.00
13,400.0	90.00	359.57	10,516.5	2,557.6	30.7	2,557.3	0.00	0.00	0.00
13,500.0	90.00	359.57	10,516.5	2,657.6	30.0	2,657.3	0.00	0.00	0.00
13,600.0	90.00	359.57	10,516.5	2,757.5	29.3	2,757.3	0.00	0.00	0.00
13,700.0	90.00	359.57	10,516.5	2,857.5	28.5	2,857.3	0.00	0.00	0.00
13,800.0	90.00	359.57	10,516.5	2,957.5	27.8	2,957.3	0.00	0.00	0.00
13,900.0	90.00	359.57	10,516.5	3,057.5	27.0	3,057.3	0.00	0.00	0.00
14,000.0	90.00	359.57	10,516.5	3,157.5	26.3	3,157.3	0.00	0.00	0.00
14,100.0	90.00	359.57	10,516.5	3,257.5	25.5	3,257.3	0.00	0.00	0.00
14,200.0	90.00	359.57	10,516.5	3,357.5	24.8	3,357.3	0.00	0.00	0.00
14,300.0	90.00	359.57	10,516.5	3,457.5	24.1	3,457.3	0.00	0.00	0.00
14,400.0	90.00	359.57	10,516.5	3,557.5	23.3	3,557.3	0.00	0.00	0.00
14,500.0	90.00	359.57	10,516.5	3,657.5	22.6	3,657.3	0.00	0.00	0.00
14,600.0	90.00	359.57	10,516.5	3,757.5	21.8	3,757.3	0.00	0.00	0.00
14,700.0	90.00	359.57	10,516.5	3,857.5	21.1	3,857.3	0.00	0.00	0.00
14,800.0	90.00	359.57	10,516.5	3,957.5	20.3	3,957.3	0.00	0.00	0.00
14,900.0	90.00	359.57	10,516.5	4,057.5	19.6	4,057.3	0.00	0.00	0.00
15,000.0	90.00	359.57	10,516.5	4,157.5	18.9	4,157.3	0.00	0.00	0.00
15,100.0	90.00	359.57	10,516.5	4,257.5	18.1	4,257.3	0.00	0.00	0.00
15,200.0	90.00	359.57	10,516.5	4,357.5	17.4	4,357.3	0.00	0.00	0.00
15,300.0	90.00	359.57	10,516.5	4,457.5	16.6	4,457.3	0.00	0.00	0.00
15,400.0	90.00	359.57	10,516.5	4,557.5	15.9	4,557.3	0.00	0.00	0.00
15,500.0	90.00	359.57	10,516.5	4,657.5	15.1	4,657.3	0.00	0.00	0.00
15,600.0	90.00	359.57	10,516.5	4,757.5	14.4	4,757.3	0.00	0.00	0.00
15,700.0	90.00	359.57	10,516.5	4,857.5	13.7	4,857.3	0.00	0.00	0.00
15,800.0	90.00	359.57	10,516.5	4,957.5	12.9	4,957.3	0.00	0.00	0.00
15,900.0	90.00	359.57	10,516.5	5,057.5	12.2	5,057.3	0.00	0.00	0.00
16,000.0	90.00	359.57	10,516.5	5,157.5	11.4	5,157.3	0.00	0.00	0.00
16,070.8	90.00	359.57	10,516.5	5,228.3	10.9	5,228.1	0.00	0.00	0.00
Start Drop -2.00 - DP1 - Charlie KS State Com #148H									
16,100.0	89.42	359.57	10,516.6	5,257.5	10.7	5,257.3	2.00	-2.00	0.00
16,200.0	87.42	359.57	10,519.4	5,357.4	9.9	5,357.2	2.00	-2.00	0.00
16,300.0	85.42	359.57	10,525.6	5,457.2	9.2	5,457.0	2.00	-2.00	0.00
16,400.0	83.42	359.57	10,535.4	5,556.7	8.5	5,556.5	2.00	-2.00	0.00
16,500.0	81.42	359.57	10,548.6	5,655.9	7.7	5,655.6	2.00	-2.00	0.00
16,575.9	79.90	359.57	10,560.9	5,730.8	7.2	5,730.6	2.00	-2.00	0.00
Start 1010.2 hold at 16575.9 MD									
16,600.0	79.90	359.57	10,565.1	5,754.5	7.0	5,754.3	0.00	0.00	0.00
16,700.0	79.90	359.57	10,582.7	5,852.9	6.3	5,852.7	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Charlie KS State Com #148H
Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #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)
16,800.0	79.90	359.57	10,600.2	5,951.4	5.5	5,951.2	0.00	0.00	0.00
16,900.0	79.90	359.57	10,617.7	6,049.8	4.8	6,049.6	0.00	0.00	0.00
17,000.0	79.90	359.57	10,635.3	6,148.3	4.1	6,148.1	0.00	0.00	0.00
17,100.0	79.90	359.57	10,652.8	6,246.7	3.3	6,246.5	0.00	0.00	0.00
17,200.0	79.90	359.57	10,670.4	6,345.2	2.6	6,345.0	0.00	0.00	0.00
17,300.0	79.90	359.57	10,687.9	6,443.6	1.9	6,443.4	0.00	0.00	0.00
17,400.0	79.90	359.57	10,705.4	6,542.1	1.1	6,541.9	0.00	0.00	0.00
17,500.0	79.90	359.57	10,723.0	6,640.5	0.4	6,640.3	0.00	0.00	0.00
17,586.1	79.90	359.57	10,738.1	6,725.3	-0.2	6,725.1	0.00	0.00	0.00
Start Build 2.00									
17,600.0	80.17	359.57	10,740.5	6,739.0	-0.3	6,738.8	2.00	2.00	0.00
17,700.0	82.17	359.57	10,755.8	6,837.8	-1.1	6,837.6	2.00	2.00	0.00
17,800.0	84.17	359.57	10,767.7	6,937.0	-1.8	6,936.9	2.00	2.00	0.00
17,900.0	86.17	359.57	10,776.1	7,036.7	-2.5	7,036.5	2.00	2.00	0.00
18,000.0	88.17	359.57	10,781.0	7,136.6	-3.3	7,136.4	2.00	2.00	0.00
18,091.3	90.00	359.57	10,782.5	7,227.8	-4.0	7,227.6	2.00	2.00	0.00
Start 5254.0 hold at 18091.3 MD - DP2 - Charlie KS State Com #148H									
18,100.0	90.00	359.57	10,782.5	7,236.5	-4.0	7,236.4	0.00	0.00	0.00
18,200.0	90.00	359.57	10,782.5	7,336.5	-4.8	7,336.4	0.00	0.00	0.00
18,300.0	90.00	359.57	10,782.5	7,436.5	-5.5	7,436.4	0.00	0.00	0.00
18,400.0	90.00	359.57	10,782.5	7,536.5	-6.2	7,536.4	0.00	0.00	0.00
18,500.0	90.00	359.57	10,782.5	7,636.5	-7.0	7,636.4	0.00	0.00	0.00
18,600.0	90.00	359.57	10,782.5	7,736.5	-7.7	7,736.4	0.00	0.00	0.00
18,700.0	90.00	359.57	10,782.5	7,836.5	-8.5	7,836.4	0.00	0.00	0.00
18,800.0	90.00	359.57	10,782.5	7,936.5	-9.2	7,936.4	0.00	0.00	0.00
18,900.0	90.00	359.57	10,782.5	8,036.5	-10.0	8,036.4	0.00	0.00	0.00
19,000.0	90.00	359.57	10,782.5	8,136.5	-10.7	8,136.4	0.00	0.00	0.00
19,100.0	90.00	359.57	10,782.5	8,236.5	-11.4	8,236.4	0.00	0.00	0.00
19,200.0	90.00	359.57	10,782.5	8,336.5	-12.2	8,336.4	0.00	0.00	0.00
19,300.0	90.00	359.57	10,782.5	8,436.5	-12.9	8,436.4	0.00	0.00	0.00
19,400.0	90.00	359.57	10,782.5	8,536.5	-13.7	8,536.4	0.00	0.00	0.00
19,500.0	90.00	359.57	10,782.5	8,636.5	-14.4	8,636.4	0.00	0.00	0.00
19,600.0	90.00	359.57	10,782.5	8,736.5	-15.2	8,736.4	0.00	0.00	0.00
19,700.0	90.00	359.57	10,782.5	8,836.5	-15.9	8,836.4	0.00	0.00	0.00
19,800.0	90.00	359.57	10,782.5	8,936.5	-16.6	8,936.4	0.00	0.00	0.00
19,900.0	90.00	359.57	10,782.5	9,036.5	-17.4	9,036.4	0.00	0.00	0.00
20,000.0	90.00	359.57	10,782.5	9,136.5	-18.1	9,136.4	0.00	0.00	0.00
20,100.0	90.00	359.57	10,782.5	9,236.5	-18.9	9,236.4	0.00	0.00	0.00
20,200.0	90.00	359.57	10,782.5	9,336.5	-19.6	9,336.4	0.00	0.00	0.00
20,300.0	90.00	359.57	10,782.5	9,436.5	-20.4	9,436.4	0.00	0.00	0.00
20,400.0	90.00	359.57	10,782.5	9,536.5	-21.1	9,536.4	0.00	0.00	0.00
20,500.0	90.00	359.57	10,782.5	9,636.5	-21.8	9,636.4	0.00	0.00	0.00
20,600.0	90.00	359.57	10,782.5	9,736.5	-22.6	9,736.4	0.00	0.00	0.00
20,700.0	90.00	359.57	10,782.5	9,836.5	-23.3	9,836.4	0.00	0.00	0.00
20,800.0	90.00	359.57	10,782.5	9,936.5	-24.1	9,936.4	0.00	0.00	0.00
20,900.0	90.00	359.57	10,782.5	10,036.5	-24.8	10,036.4	0.00	0.00	0.00
21,000.0	90.00	359.57	10,782.5	10,136.5	-25.6	10,136.4	0.00	0.00	0.00
21,100.0	90.00	359.57	10,782.5	10,236.5	-26.3	10,236.4	0.00	0.00	0.00
21,200.0	90.00	359.57	10,782.5	10,336.5	-27.0	10,336.4	0.00	0.00	0.00
21,300.0	90.00	359.57	10,782.5	10,436.4	-27.8	10,436.4	0.00	0.00	0.00
21,400.0	90.00	359.57	10,782.5	10,536.4	-28.5	10,536.4	0.00	0.00	0.00
21,500.0	90.00	359.57	10,782.5	10,636.4	-29.3	10,636.4	0.00	0.00	0.00
21,600.0	90.00	359.57	10,782.5	10,736.4	-30.0	10,736.4	0.00	0.00	0.00
21,700.0	90.00	359.57	10,782.5	10,836.4	-30.8	10,836.4	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Charlie KS State Com #148H
Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #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)	
21,800.0	90.00	359.57	10,782.5	10,936.4	-31.5	10,936.4	0.00	0.00	0.00	
21,900.0	90.00	359.57	10,782.5	11,036.4	-32.2	11,036.4	0.00	0.00	0.00	
22,000.0	90.00	359.57	10,782.5	11,136.4	-33.0	11,136.4	0.00	0.00	0.00	
22,100.0	90.00	359.57	10,782.5	11,236.4	-33.7	11,236.4	0.00	0.00	0.00	
22,200.0	90.00	359.57	10,782.5	11,336.4	-34.5	11,336.4	0.00	0.00	0.00	
22,300.0	90.00	359.57	10,782.5	11,436.4	-35.2	11,436.4	0.00	0.00	0.00	
22,400.0	90.00	359.57	10,782.5	11,536.4	-36.0	11,536.4	0.00	0.00	0.00	
22,500.0	90.00	359.57	10,782.5	11,636.4	-36.7	11,636.4	0.00	0.00	0.00	
22,600.0	90.00	359.57	10,782.5	11,736.4	-37.4	11,736.4	0.00	0.00	0.00	
22,700.0	90.00	359.57	10,782.5	11,836.4	-38.2	11,836.4	0.00	0.00	0.00	
22,800.0	90.00	359.57	10,782.5	11,936.4	-38.9	11,936.4	0.00	0.00	0.00	
22,900.0	90.00	359.57	10,782.5	12,036.4	-39.7	12,036.4	0.00	0.00	0.00	
23,000.0	90.00	359.57	10,782.5	12,136.4	-40.4	12,136.4	0.00	0.00	0.00	
23,100.0	90.00	359.57	10,782.5	12,236.4	-41.2	12,236.4	0.00	0.00	0.00	
23,200.0	90.00	359.57	10,782.5	12,336.4	-41.9	12,336.4	0.00	0.00	0.00	
23,300.0	90.00	359.57	10,782.5	12,436.4	-42.6	12,436.4	0.00	0.00	0.00	
23,345.2	90.00	359.57	10,782.5	12,481.6	-43.0	12,481.6	0.00	0.00	0.00	
TD at 23345.2 - BHL - Charlie KS State Com #148H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
KOP - Charlie KS State Com #148H - plan hits target center - Point	0.00	0.00	9,943.5	-550.8	53.4	514,959.00	724,706.00	32° 24' 49.076 N		103° 36' 18.661 W
DP1 - Charlie KS State Com #148H - plan hits target center - Point	0.00	0.00	10,516.5	5,228.3	10.9	520,737.82	724,663.52	32° 25' 46.261 N		103° 36' 18.697 W
FTP - Charlie KS State Com #148H - plan misses target center by 202.8usft at 10437.4usft MD (10364.5 TVD, -366.5 N, 52.2 E) - Point	0.00	0.00	10,516.5	-500.8	53.4	515,009.00	724,706.00	32° 24' 49.570 N		103° 36' 18.657 W
BHL - Charlie KS State Com #148H - plan hits target center - Point	0.00	0.00	10,782.5	12,481.6	-43.0	527,991.57	724,609.64	32° 26' 58.043 N		103° 36' 18.748 W
DP2 - Charlie KS State Com #148H - plan hits target center - Point	0.00	0.00	10,782.5	7,227.8	-4.0	522,737.41	724,648.67	32° 26' 6.049 N		103° 36' 18.711 W

Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Charlie KS State Com #148H
Company:	Matador Production Company	TVD Reference:	KB @ 3646.5usft
Project:	Antelope Ridge	MD Reference:	KB @ 3646.5usft
Site:	Paul Flowers / Charlie KS	North Reference:	Grid
Well:	Charlie KS State Com #148H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	State Plan #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,065.0	1,064.0	Z (Rustler)		0.00	359.57	
1,397.0	1,396.0	Z (Salado)		0.00	359.57	
4,683.0	4,676.0	Z (G30:CS14-CSB)		0.00	359.57	
4,816.4	4,809.0	Z (G26: Bell Cyn.)		0.00	359.57	
5,995.9	5,985.0	Z (G13: Cherry Cyn.)		0.00	359.57	
7,045.0	7,031.0	Z (G7: Brushy Cyn.) Antelope Ridge		0.00	359.57	
8,424.1	8,406.0	G5: L. Brushy Cyn.		0.00	359.57	
8,671.8	8,653.0	Z (G4: BSG (CS9))		0.00	359.57	
9,303.6	9,283.0	L8.2: U. Avalon Shale		0.00	359.57	
9,479.2	9,458.0	L6.3: Avalon Carb		0.00	359.57	
9,709.8	9,688.0	Z (L5.3: FBSC)		0.00	359.57	
9,880.7	9,858.7	Z (L5.1: FBSC)		0.00	359.57	
10,148.3	10,123.1	Z (L4.3: SBSC)		0.00	359.57	
10,735.8	10,501.1	Z (L4.1: SBSC)		0.00	359.57	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
2,500.0	2,500.0	0.0	0.0	Start Build 2.00	
2,720.2	2,719.9	-8.4	0.8	Start 6950.8 hold at 2720.2 MD	
9,671.0	9,650.2	-539.6	52.3	Start Drop -1.50	
9,964.5	9,943.5	-550.8	53.4	Start Build 10.00	
10,864.5	10,516.5	22.1	49.6	Start DLS 2.00 TFO -90.24	
10,866.8	10,516.5	24.4	49.6	Start 5204.0 hold at 10866.8 MD	
16,070.8	10,516.5	5,228.3	10.9	Start Drop -2.00	
16,575.9	10,560.9	5,730.8	7.2	Start 1010.2 hold at 16575.9 MD	
17,586.1	10,738.1	6,725.3	-0.2	Start Build 2.00	
18,091.3	10,782.5	7,227.8	-4.0	Start 5254.0 hold at 18091.3 MD	
23,345.2	10,782.5	12,481.6	-43.0	TD at 23345.2	