

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 304071

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 30-015-49109
4. Property Code 328503	5. Property Name Ace Stern Vegas Fee 22 21	6. Well No. 124H

7. Surface Location

UL - Lot M	Section 21	Township 22S	Range 28E	Lot Idn	Feet From 1160	N/S Line S	Feet From 350	E/W Line W	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot P	Section 22	Township 22S	Range 28E	Lot Idn P	Feet From 677	N/S Line S	Feet From 60	E/W Line E	County Eddy
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9. Pool Information

CULEBRA BLUFF;BONE SPRING, SOUTH	15011
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 3067
16. Multiple N	17. Proposed Depth 18259	18. Formation Bone Spring	19. Contractor	20. Spud Date 12/1/2021
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	385	380	0
Int1	9.875	7.625	29.7	7325	1064	0
Prod	6.75	5.5	20	18259	684	7125

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.

OIL CONSERVATION DIVISION

Signature:

Printed Name: Electronically filed by Brett A Jennings	Approved By: Katherine Pickford
Title: Regulatory Analyst	Title: Geoscientist
Email Address: brett.jennings@matadorresources.com	Approved Date: 11/22/2021 Expiration Date: 11/22/2023
Date: 11/15/2021 Phone: 972-629-2160	Conditions of Approval Attached

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State of New Mexico
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 30-015-49109	² Pool Code 15011	³ Pool Name Culebra Bluff; Bone Spring, South
⁴ Property Code 328503	⁵ Property Name ACE STERN VEGAS FEE 22-21	⁶ Well Number 124H
⁷ OGRID No. 228937	⁸ Operator Name MATADOR PRODUCTION COMPANY	⁹ Elevation 3067'

¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	22-S	28-E	-	1160'	SOUTH	350'	WEST	EDDY

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
P	22	22-S	28-E	-	677'	SOUTH	60'	EAST	EDDY

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

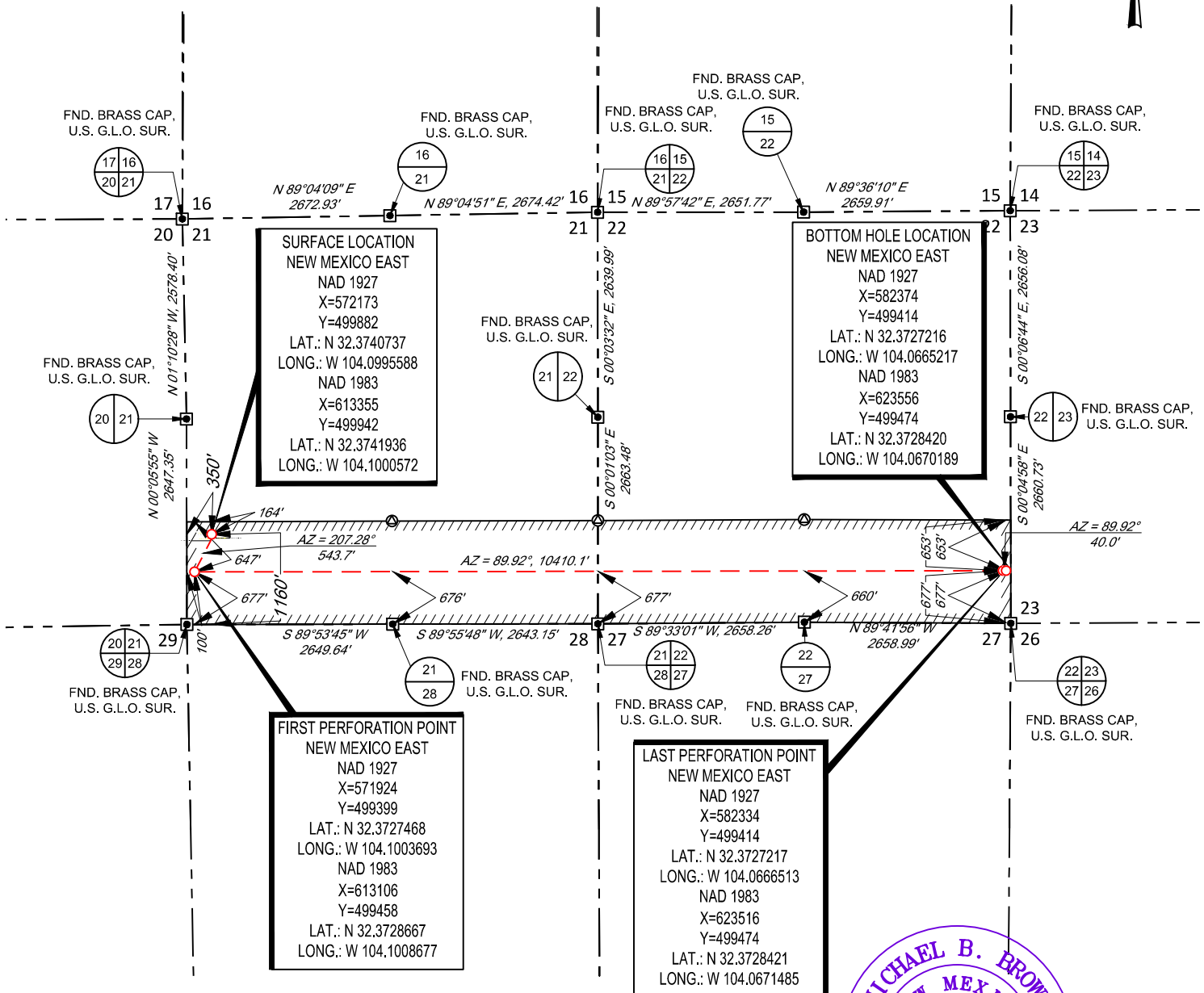
<p>SURFACE LOCATION NEW MEXICO EAST NAD 1927 X=572173 Y=499882 LAT.: N 32.3740737 LONG.: W 104.0995588 NAD 1983 X=613355 Y=499942 LAT.: N 32.3741936 LONG.: W 104.1000572</p>	<p>LAST PERFORATION POINT NEW MEXICO EAST NAD 1927 X=582334 Y=499414 LAT.: N 32.3727217 LONG.: W 104.0666513 NAD 1983 X=623516 Y=499474 LAT.: N 32.3728421 LONG.: W 104.0671485</p>	<p>17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p>Signature: <i>Brett Jennings</i> Date: 11/15/21</p> <p>Brett Jennings</p> <p>Brett.Jennings@matadorresources.com</p>
<p>FIRST PERFORATION POINT NEW MEXICO EAST NAD 1927 X=571924 Y=499399 LAT.: N 32.3727468 LONG.: W 104.1003693 NAD 1983 X=613106 Y=499458 LAT.: N 32.3728667 LONG.: W 104.1008677</p>	<p>BOTTOM HOLE LOCATION NEW MEXICO EAST NAD 1927 X=582374 Y=499414 LAT.: N 32.3727216 LONG.: W 104.0665217 NAD 1983 X=623556 Y=499474 LAT.: N 32.3728420 LONG.: W 104.0670189</p>	<p>18 SURVEYOR 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.</p> <p>05/15/2020</p> <p>Date of Survey Signature and Seal of Professional Surveyor <i>MICHAEL B. BROWN</i> NEW MEXICO 18329 PROFESSIONAL SURVEYOR</p> <p>Certificate Number</p>

SCALE: 1" = 1000'

0' 500' 1000'



SECTION 21, TOWNSHIP 22-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: ACE STERN VEGAS FEE 22-21 124H

SECTION 21 TWP 22-S RGE 28-E SURVEY N.M.P.M.

COUNTY EDDY STATE NM

DESCRIPTION 1130 FSL & 350 FWL

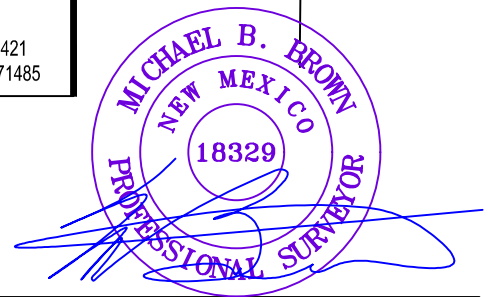
DISTANCE & DIRECTION

FROM INT. OF US HWY 62. & US HWY 285. GO EAST ON US HWY 62. ± 2.2 MILES. THENCE SOUTHEAST (RIGHT) ON REFINERY RD./COUNTY RD. 605 ± 7.6 MILES, THENCE NORTH (LEFT) ON OLD POST RD. ± 0.9 MILES, THENCE WEST (LEFT) ON A PROPOSED RD. ± 269 FEET TO A POINT ± 382 FEET SOUTHEAST OF THE LOCATION.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1927, EAST ZONE, U.S. SURVEY FEET

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.




Michael Blake Brown, P.S. No. 18329
November 2, 2021



TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

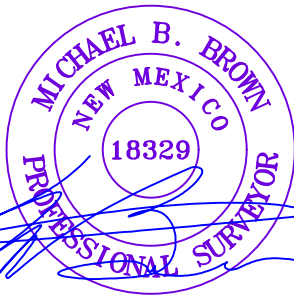
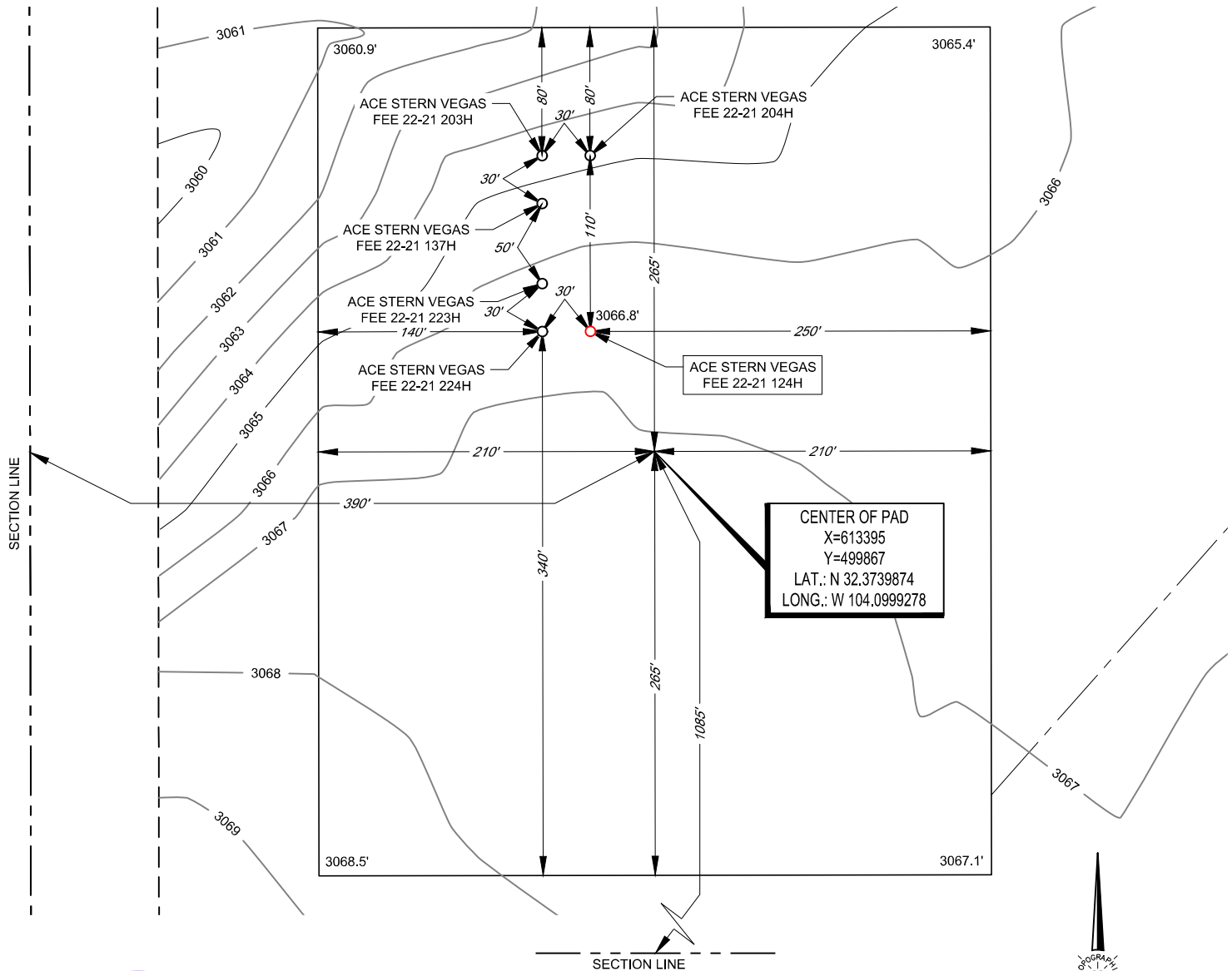
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM


 EXISTING ROAD
 SECTION LINE
 EXISTING PIPELINE



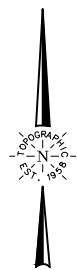
SECTION 21, TOWNSHIP 22-S, RANGE 28-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'




LEASE NAME & WELL NO.: ACE STERN VEGAS FEE 22-21 124H
124H LATITUDE N 32.3741936 124H LONGITUDE W 104.1000572

CENTER OF PAD IS 1085' FSL & 390' FWL



SCALE: 1" = 100'



0' 50' 100'

Michael Blake Brown, P.S. No. 18329

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



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 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
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 WWW.TOPOGRAPHIC.COM

ORIGINAL DOCUMENT SIZE: 8.5" X 11"

S:\SURVEY\MATADOR_RESOURCES\ACE STERN VEGAS 21-21S-28E\FINAL PRODUCTS\ILO ASV_FEE 22-21_124H_REV2.DWG 11/3/2021 2:16:13 PM adisabella

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

Form APD Conditions

Permit 304071

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: MATADOR PRODUCTION COMPANY [228937] One Lincoln Centre Dallas, TX 75240	API Number: 30-015-49109
	Well: Ace Stern Vegas Fee 22 21 #124H

OCD Reviewer	Condition
kpickford	Surface casing must be set 25' below top of Rustler Anhydrite or other competent layer in order to seal off protectable water
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	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

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:** 11/03/2021

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
Ace Stern Vegas Fee 22-21 223H	TBD	UL-M Sec 21 T22S R28E	1,160' FSL 350' FWL	826	12,165	4,687
Ace Stern Vegas Fee 22-21 224H	TBD	UL-D Sec 21 T22S R28E	1,160' FSL 320' FWL	826	12,165	4,687
Ace Stern Vegas Fee 22-21 124H	TBD	UL-D Sec 21 T22S R28E	1,160' FSL 350' FWL	1,200	2,300	3,000

IV. Central Delivery Point Name: Ace Stern Vegas 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
Ace Stern Vegas Fee 22-21 223H	TBD	12/17/2021	01/11/2022	03/01/2022	04/22/2022	04/22/2022
Ace Stern Vegas Fee 22-21 224H	TBD	01/02/2021	02/06/2021	03/01/2022	04/26/2022	04/26/2022
Ace Stern Vegas Fee 22-21 124H	TBD	TBD	TBD	TBD	TBD	TBD

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: Omar Enriquez	<small>Digitally signed by Omar Enriquez DN: cn=Omar Enriquez, o=Matador Resources, email=omar.enriquez@matadorresources.com, c=US Date: 2021.11.04 10:55:59 -0500</small>
Printed Name: Omar Enriquez	
Title: Senior Production Engineer	
E-mail Address: oenriquez@matadorresources.com	
Date: 9/17/2021	
Phone: (972) 587-4638	
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

Ace Stern Vegas Fee 223H, 224H and 124H

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. Expected production from the 223H and 224H wells is approximately 12,000 mcf/d, 800 bopd, and 4,600 bwpd per well. Expected production from the 124H is approximately 2,300 mcf/d, 1,200 bopd and 3,000 bwpd. 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.

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

Matador Production Company

Rustler Breaks

Ace Stern Vegas

Ace Stern Vegas #124H

Wellbore #1

Plan: BLM Plan #1

Standard Planning Report

03 November, 2021

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ace Stern Vegas#124H
Company:	Matador Production Company	TVD Reference:	KB @ 3095.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3095.5usft
Site:	Ace Stern Vegas	North Reference:	Grid
Well:	Ace Stern Vegas #124H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Project	Rustler Breaks,		
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		Ace Stern Vegas			
Site Position:		Northing:	499,867.00 usft	Latitude:	32° 22' 25.372 N
From:	Map	Easting:	613,395.00 usft	Longitude:	103° 57' 57.745 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well	Ace Stern Vegas #124H					
Well Position	+N-S	14.9 usft	Northing:	499,881.92 usft	Latitude:	32° 22' 26.665 N
	+E-W	-41,224.9 usft	Easting:	572,173.20 usft	Longitude:	104° 5' 58.412 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,067.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/3/2021	6.74	60.06	47,523.80241093

Design	BLM Plan #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	89.92

Plan Survey Tool Program	Date	11/3/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,258.9	BLM Plan #1 (Wellbore #1)	MWD
				OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,300.0	8.00	207.17	2,297.4	-49.6	-25.5	1.00	1.00	0.00	207.17	
6,340.7	8.00	207.17	6,298.7	-549.9	-282.3	0.00	0.00	0.00	0.00	
6,874.0	0.00	0.00	6,830.3	-583.0	-299.2	1.50	-1.50	0.00	180.00	
7,425.7	0.00	0.00	7,382.0	-583.0	-299.2	0.00	0.00	0.00	0.00	VP - Ace Stern Veg:
8,325.7	90.00	82.40	7,955.0	-507.2	268.7	10.00	10.00	0.00	82.40	
8,701.4	90.00	89.92	7,955.0	-482.0	643.4	2.00	0.00	2.00	90.00	
18,258.9	90.00	89.92	7,955.0	-468.0	10,200.8	0.00	0.00	0.00	0.00	BHL - Ace Stern Ve

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ace Stern Vegas#124H
Company:	Matador Production Company	TVD Reference:	KB @ 3095.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3095.5usft
Site:	Ace Stern Vegas	North Reference:	Grid
Well:	Ace Stern Vegas #124H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM 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
478.0	0.00	0.00	478.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado (Top SALT)									
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
947.0	0.00	0.00	947.0	0.0	0.0	0.0	0.00	0.00	0.00
Castile (T)									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.00									
1,600.0	1.00	207.17	1,600.0	-0.8	-0.4	-0.4	1.00	1.00	0.00
1,700.0	2.00	207.17	1,700.0	-3.1	-1.6	-1.6	1.00	1.00	0.00
1,800.0	3.00	207.17	1,799.9	-7.0	-3.6	-3.6	1.00	1.00	0.00
1,900.0	4.00	207.17	1,899.7	-12.4	-6.4	-6.4	1.00	1.00	0.00
2,000.0	5.00	207.17	1,999.4	-19.4	-10.0	-10.0	1.00	1.00	0.00
2,100.0	6.00	207.17	2,098.9	-27.9	-14.3	-14.4	1.00	1.00	0.00
2,200.0	7.00	207.17	2,198.3	-38.0	-19.5	-19.6	1.00	1.00	0.00
2,300.0	8.00	207.17	2,297.4	-49.6	-25.5	-25.5	1.00	1.00	0.00
Start 4040.7 hold at 2300.0 MD									
2,400.0	8.00	207.17	2,396.4	-62.0	-31.8	-31.9	0.00	0.00	0.00
2,500.0	8.00	207.17	2,495.5	-74.4	-38.2	-38.3	0.00	0.00	0.00
2,554.1	8.00	207.17	2,549.0	-81.1	-41.6	-41.7	0.00	0.00	0.00
G30:CS14-CSB (BASE SALT)									
2,591.4	8.00	207.17	2,586.0	-85.7	-44.0	-44.1	0.00	0.00	0.00
G26: Bell Cyn (T. Delaware)									
2,600.0	8.00	207.17	2,594.5	-86.8	-44.5	-44.6	0.00	0.00	0.00
2,700.0	8.00	207.17	2,693.5	-99.1	-50.9	-51.0	0.00	0.00	0.00
2,800.0	8.00	207.17	2,792.5	-111.5	-57.2	-57.4	0.00	0.00	0.00
2,900.0	8.00	207.17	2,891.6	-123.9	-63.6	-63.8	0.00	0.00	0.00
3,000.0	8.00	207.17	2,990.6	-136.3	-69.9	-70.1	0.00	0.00	0.00
3,100.0	8.00	207.17	3,089.6	-148.7	-76.3	-76.5	0.00	0.00	0.00
3,200.0	8.00	207.17	3,188.6	-161.0	-82.7	-82.9	0.00	0.00	0.00
3,300.0	8.00	207.17	3,287.7	-173.4	-89.0	-89.3	0.00	0.00	0.00
3,400.0	8.00	207.17	3,386.7	-185.8	-95.4	-95.6	0.00	0.00	0.00
3,423.5	8.00	207.17	3,410.0	-188.7	-96.9	-97.1	0.00	0.00	0.00
Z (G13: Cherry Cyn.)									
3,500.0	8.00	207.17	3,485.7	-198.2	-101.7	-102.0	0.00	0.00	0.00
3,600.0	8.00	207.17	3,584.8	-210.6	-108.1	-108.4	0.00	0.00	0.00
3,700.0	8.00	207.17	3,683.8	-222.9	-114.4	-114.7	0.00	0.00	0.00
3,800.0	8.00	207.17	3,782.8	-235.3	-120.8	-121.1	0.00	0.00	0.00
3,900.0	8.00	207.17	3,881.8	-247.7	-127.1	-127.5	0.00	0.00	0.00
4,000.0	8.00	207.17	3,980.9	-260.1	-133.5	-133.9	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ace Stern Vegas#124H
Company:	Matador Production Company	TVD Reference:	KB @ 3095.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3095.5usft
Site:	Ace Stern Vegas	North Reference:	Grid
Well:	Ace Stern Vegas #124H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM 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)
4,100.0	8.00	207.17	4,079.9	-272.5	-139.9	-140.2	0.00	0.00	0.00
4,200.0	8.00	207.17	4,178.9	-284.9	-146.2	-146.6	0.00	0.00	0.00
4,300.0	8.00	207.17	4,277.9	-297.2	-152.6	-153.0	0.00	0.00	0.00
4,400.0	8.00	207.17	4,377.0	-309.6	-158.9	-159.4	0.00	0.00	0.00
4,500.0	8.00	207.17	4,476.0	-322.0	-165.3	-165.7	0.00	0.00	0.00
4,600.0	8.00	207.17	4,575.0	-334.4	-171.6	-172.1	0.00	0.00	0.00
4,643.4	8.00	207.17	4,618.0	-339.8	-174.4	-174.9	0.00	0.00	0.00
Z (G7: Brushy Cyn.)									
4,700.0	8.00	207.17	4,674.0	-346.8	-178.0	-178.5	0.00	0.00	0.00
4,800.0	8.00	207.17	4,773.1	-359.1	-184.3	-184.8	0.00	0.00	0.00
4,900.0	8.00	207.17	4,872.1	-371.5	-190.7	-191.2	0.00	0.00	0.00
5,000.0	8.00	207.17	4,971.1	-383.9	-197.1	-197.6	0.00	0.00	0.00
5,100.0	8.00	207.17	5,070.2	-396.3	-203.4	-204.0	0.00	0.00	0.00
5,200.0	8.00	207.17	5,169.2	-408.7	-209.8	-210.3	0.00	0.00	0.00
5,300.0	8.00	207.17	5,268.2	-421.1	-216.1	-216.7	0.00	0.00	0.00
5,400.0	8.00	207.17	5,367.2	-433.4	-222.5	-223.1	0.00	0.00	0.00
5,500.0	8.00	207.17	5,466.3	-445.8	-228.8	-229.4	0.00	0.00	0.00
5,600.0	8.00	207.17	5,565.3	-458.2	-235.2	-235.8	0.00	0.00	0.00
5,700.0	8.00	207.17	5,664.3	-470.6	-241.5	-242.2	0.00	0.00	0.00
5,768.4	8.00	207.17	5,732.0	-479.0	-245.9	-246.5	0.00	0.00	0.00
Z (G5: L. Brushy Cyn.)									
5,800.0	8.00	207.17	5,763.3	-483.0	-247.9	-248.6	0.00	0.00	0.00
5,900.0	8.00	207.17	5,862.4	-495.3	-254.2	-254.9	0.00	0.00	0.00
6,000.0	8.00	207.17	5,961.4	-507.7	-260.6	-261.3	0.00	0.00	0.00
6,014.7	8.00	207.17	5,976.0	-509.6	-261.5	-262.3	0.00	0.00	0.00
Z (G4: BSG (CS9))									
6,100.0	8.00	207.17	6,060.4	-520.1	-267.0	-267.7	0.00	0.00	0.00
6,200.0	8.00	207.17	6,159.4	-532.5	-273.3	-274.1	0.00	0.00	0.00
6,300.0	8.00	207.17	6,258.5	-544.9	-279.7	-280.4	0.00	0.00	0.00
6,340.7	8.00	207.17	6,298.7	-549.9	-282.3	-283.0	0.00	0.00	0.00
Start Drop -1.50									
6,400.0	7.11	207.17	6,357.6	-556.8	-285.8	-286.6	1.50	-1.50	0.00
6,475.9	5.97	207.17	6,433.0	-564.5	-289.8	-290.6	1.50	-1.50	0.00
Z (L8.2: U. Avalon Shale)									
6,500.0	5.61	207.17	6,456.9	-566.7	-290.9	-291.7	1.50	-1.50	0.00
6,589.4	4.27	207.17	6,546.0	-573.5	-294.4	-295.2	1.50	-1.50	0.00
Z (L6.3: Avalon Carb)									
6,600.0	4.11	207.17	6,556.6	-574.2	-294.7	-295.5	1.50	-1.50	0.00
6,654.5	3.29	207.17	6,611.0	-577.4	-296.3	-297.2	1.50	-1.50	0.00
Z (L6.2: L. Avalon Shale)									
6,700.0	2.61	207.17	6,656.4	-579.5	-297.4	-298.2	1.50	-1.50	0.00
6,745.6	1.93	207.17	6,702.0	-581.1	-298.2	-299.1	1.50	-1.50	0.00
Z (L5.3: FBSC)									
6,800.0	1.11	207.17	6,756.4	-582.3	-298.9	-299.7	1.50	-1.50	0.00
6,874.0	0.00	0.00	6,830.3	-583.0	-299.2	-300.0	1.50	-1.50	0.00
Start 551.7 hold at 6874.0 MD									
6,900.0	0.00	0.00	6,856.3	-583.0	-299.2	-300.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,956.3	-583.0	-299.2	-300.0	0.00	0.00	0.00
7,071.7	0.00	0.00	7,028.0	-583.0	-299.2	-300.0	0.00	0.00	0.00
Z (L5.1: FBSC)									
7,100.0	0.00	0.00	7,056.3	-583.0	-299.2	-300.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,156.3	-583.0	-299.2	-300.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,256.3	-583.0	-299.2	-300.0	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ace Stern Vegas#124H
Company:	Matador Production Company	TVD Reference:	KB @ 3095.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3095.5usft
Site:	Ace Stern Vegas	North Reference:	Grid
Well:	Ace Stern Vegas #124H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM 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)
7,349.7	0.00	0.00	7,306.0	-583.0	-299.2	-300.0	0.00	0.00	0.00
Z (L4.3: SBSC)									
7,400.0	0.00	0.00	7,356.3	-583.0	-299.2	-300.0	0.00	0.00	0.00
7,425.7	0.00	0.00	7,382.0	-583.0	-299.2	-300.0	0.00	0.00	0.00
Start Build 10.00 - VP - Ace Stern Vegas #124H									
7,500.0	7.43	82.40	7,456.1	-582.3	-294.5	-295.3	10.00	10.00	0.00
7,600.0	17.43	82.40	7,553.7	-579.5	-273.1	-273.9	10.00	10.00	0.00
7,700.0	27.43	82.40	7,646.0	-574.5	-235.4	-236.2	10.00	10.00	0.00
7,799.7	37.40	82.40	7,730.0	-567.4	-182.5	-183.3	10.00	10.00	0.00
Z (L4.1: SBSG)									
7,800.0	37.43	82.40	7,730.3	-567.4	-182.3	-183.1	10.00	10.00	0.00
7,900.0	47.43	82.40	7,804.0	-558.5	-115.5	-116.2	10.00	10.00	0.00
8,000.0	57.43	82.40	7,864.9	-548.0	-37.0	-37.8	10.00	10.00	0.00
8,100.0	67.43	82.40	7,911.1	-536.3	50.8	50.0	10.00	10.00	0.00
8,200.0	77.43	82.40	7,941.2	-523.7	145.1	144.4	10.00	10.00	0.00
8,300.0	87.43	82.40	7,954.4	-510.6	243.3	242.6	10.00	10.00	0.00
8,325.7	90.00	82.40	7,955.0	-507.2	268.7	268.0	10.00	10.00	0.00
Start DLS 2.00 TFO 90.00									
8,400.0	90.00	83.89	7,955.0	-498.3	342.5	341.8	2.00	0.00	2.00
8,500.0	90.00	85.89	7,955.0	-489.4	442.1	441.4	2.00	0.00	2.00
8,600.0	90.00	87.89	7,955.0	-484.0	542.0	541.3	2.00	0.00	2.00
8,700.0	90.00	89.89	7,955.0	-482.0	641.9	641.3	2.00	0.00	2.00
8,701.4	90.00	89.92	7,955.0	-482.0	643.4	642.7	2.00	0.00	2.00
Start 9557.4 hold at 8701.4 MD									
8,800.0	90.00	89.92	7,955.0	-481.9	741.9	741.3	0.00	0.00	0.00
8,900.0	90.00	89.92	7,955.0	-481.7	841.9	841.3	0.00	0.00	0.00
9,000.0	90.00	89.92	7,955.0	-481.6	941.9	941.3	0.00	0.00	0.00
9,100.0	90.00	89.92	7,955.0	-481.5	1,041.9	1,041.3	0.00	0.00	0.00
9,200.0	90.00	89.92	7,955.0	-481.3	1,141.9	1,141.3	0.00	0.00	0.00
9,300.0	90.00	89.92	7,955.0	-481.2	1,241.9	1,241.3	0.00	0.00	0.00
9,400.0	90.00	89.92	7,955.0	-481.0	1,341.9	1,341.3	0.00	0.00	0.00
9,500.0	90.00	89.92	7,955.0	-480.9	1,441.9	1,441.3	0.00	0.00	0.00
9,600.0	90.00	89.92	7,955.0	-480.7	1,541.9	1,541.3	0.00	0.00	0.00
9,700.0	90.00	89.92	7,955.0	-480.6	1,641.9	1,641.3	0.00	0.00	0.00
9,800.0	90.00	89.92	7,955.0	-480.4	1,741.9	1,741.3	0.00	0.00	0.00
9,900.0	90.00	89.92	7,955.0	-480.3	1,841.9	1,841.3	0.00	0.00	0.00
10,000.0	90.00	89.92	7,955.0	-480.1	1,941.9	1,941.3	0.00	0.00	0.00
10,100.0	90.00	89.92	7,955.0	-480.0	2,041.9	2,041.3	0.00	0.00	0.00
10,200.0	90.00	89.92	7,955.0	-479.8	2,141.9	2,141.3	0.00	0.00	0.00
10,300.0	90.00	89.92	7,955.0	-479.7	2,241.9	2,241.3	0.00	0.00	0.00
10,400.0	90.00	89.92	7,955.0	-479.5	2,341.9	2,341.3	0.00	0.00	0.00
10,500.0	90.00	89.92	7,955.0	-479.4	2,441.9	2,441.3	0.00	0.00	0.00
10,600.0	90.00	89.92	7,955.0	-479.2	2,541.9	2,541.3	0.00	0.00	0.00
10,700.0	90.00	89.92	7,955.0	-479.1	2,641.9	2,641.3	0.00	0.00	0.00
10,800.0	90.00	89.92	7,955.0	-479.0	2,741.9	2,741.3	0.00	0.00	0.00
10,900.0	90.00	89.92	7,955.0	-478.8	2,841.9	2,841.3	0.00	0.00	0.00
11,000.0	90.00	89.92	7,955.0	-478.7	2,941.9	2,941.3	0.00	0.00	0.00
11,100.0	90.00	89.92	7,955.0	-478.5	3,041.9	3,041.3	0.00	0.00	0.00
11,200.0	90.00	89.92	7,955.0	-478.4	3,141.9	3,141.3	0.00	0.00	0.00
11,300.0	90.00	89.92	7,955.0	-478.2	3,241.9	3,241.3	0.00	0.00	0.00
11,400.0	90.00	89.92	7,955.0	-478.1	3,341.9	3,341.3	0.00	0.00	0.00
11,500.0	90.00	89.92	7,955.0	-477.9	3,441.9	3,441.3	0.00	0.00	0.00
11,600.0	90.00	89.92	7,955.0	-477.8	3,541.9	3,541.3	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ace Stern Vegas#124H
Company:	Matador Production Company	TVD Reference:	KB @ 3095.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3095.5usft
Site:	Ace Stern Vegas	North Reference:	Grid
Well:	Ace Stern Vegas #124H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM 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)	
11,700.0	90.00	89.92	7,955.0	-477.6	3,641.9	3,641.3	0.00	0.00	0.00	
11,800.0	90.00	89.92	7,955.0	-477.5	3,741.9	3,741.3	0.00	0.00	0.00	
11,900.0	90.00	89.92	7,955.0	-477.3	3,841.9	3,841.3	0.00	0.00	0.00	
12,000.0	90.00	89.92	7,955.0	-477.2	3,941.9	3,941.3	0.00	0.00	0.00	
12,100.0	90.00	89.92	7,955.0	-477.0	4,041.9	4,041.3	0.00	0.00	0.00	
12,200.0	90.00	89.92	7,955.0	-476.9	4,141.9	4,141.3	0.00	0.00	0.00	
12,300.0	90.00	89.92	7,955.0	-476.8	4,241.9	4,241.3	0.00	0.00	0.00	
12,400.0	90.00	89.92	7,955.0	-476.6	4,341.9	4,341.3	0.00	0.00	0.00	
12,500.0	90.00	89.92	7,955.0	-476.5	4,441.9	4,441.3	0.00	0.00	0.00	
12,600.0	90.00	89.92	7,955.0	-476.3	4,541.9	4,541.3	0.00	0.00	0.00	
12,700.0	90.00	89.92	7,955.0	-476.2	4,641.9	4,641.3	0.00	0.00	0.00	
12,800.0	90.00	89.92	7,955.0	-476.0	4,741.9	4,741.3	0.00	0.00	0.00	
12,900.0	90.00	89.92	7,955.0	-475.9	4,841.9	4,841.3	0.00	0.00	0.00	
13,000.0	90.00	89.92	7,955.0	-475.7	4,941.9	4,941.3	0.00	0.00	0.00	
13,100.0	90.00	89.92	7,955.0	-475.6	5,041.9	5,041.3	0.00	0.00	0.00	
13,200.0	90.00	89.92	7,955.0	-475.4	5,141.9	5,141.3	0.00	0.00	0.00	
13,300.0	90.00	89.92	7,955.0	-475.3	5,241.9	5,241.3	0.00	0.00	0.00	
13,400.0	90.00	89.92	7,955.0	-475.1	5,341.9	5,341.3	0.00	0.00	0.00	
13,500.0	90.00	89.92	7,955.0	-475.0	5,441.9	5,441.3	0.00	0.00	0.00	
13,600.0	90.00	89.92	7,955.0	-474.8	5,541.9	5,541.3	0.00	0.00	0.00	
13,700.0	90.00	89.92	7,955.0	-474.7	5,641.9	5,641.3	0.00	0.00	0.00	
13,800.0	90.00	89.92	7,955.0	-474.6	5,741.9	5,741.3	0.00	0.00	0.00	
13,900.0	90.00	89.92	7,955.0	-474.4	5,841.9	5,841.3	0.00	0.00	0.00	
14,000.0	90.00	89.92	7,955.0	-474.3	5,941.9	5,941.3	0.00	0.00	0.00	
14,100.0	90.00	89.92	7,955.0	-474.1	6,041.9	6,041.3	0.00	0.00	0.00	
14,200.0	90.00	89.92	7,955.0	-474.0	6,141.9	6,141.3	0.00	0.00	0.00	
14,300.0	90.00	89.92	7,955.0	-473.8	6,241.9	6,241.3	0.00	0.00	0.00	
14,400.0	90.00	89.92	7,955.0	-473.7	6,341.9	6,341.3	0.00	0.00	0.00	
14,500.0	90.00	89.92	7,955.0	-473.5	6,441.9	6,441.3	0.00	0.00	0.00	
14,600.0	90.00	89.92	7,955.0	-473.4	6,541.9	6,541.3	0.00	0.00	0.00	
14,700.0	90.00	89.92	7,955.0	-473.2	6,641.9	6,641.3	0.00	0.00	0.00	
14,800.0	90.00	89.92	7,955.0	-473.1	6,741.9	6,741.3	0.00	0.00	0.00	
14,900.0	90.00	89.92	7,955.0	-472.9	6,841.9	6,841.3	0.00	0.00	0.00	
15,000.0	90.00	89.92	7,955.0	-472.8	6,941.9	6,941.3	0.00	0.00	0.00	
15,100.0	90.00	89.92	7,955.0	-472.6	7,041.9	7,041.3	0.00	0.00	0.00	
15,200.0	90.00	89.92	7,955.0	-472.5	7,141.9	7,141.3	0.00	0.00	0.00	
15,300.0	90.00	89.92	7,955.0	-472.4	7,241.9	7,241.3	0.00	0.00	0.00	
15,400.0	90.00	89.92	7,955.0	-472.2	7,341.9	7,341.3	0.00	0.00	0.00	
15,500.0	90.00	89.92	7,955.0	-472.1	7,441.9	7,441.3	0.00	0.00	0.00	
15,600.0	90.00	89.92	7,955.0	-471.9	7,541.9	7,541.3	0.00	0.00	0.00	
15,700.0	90.00	89.92	7,955.0	-471.8	7,641.9	7,641.3	0.00	0.00	0.00	
15,800.0	90.00	89.92	7,955.0	-471.6	7,741.9	7,741.3	0.00	0.00	0.00	
15,900.0	90.00	89.92	7,955.0	-471.5	7,841.9	7,841.3	0.00	0.00	0.00	
16,000.0	90.00	89.92	7,955.0	-471.3	7,941.9	7,941.3	0.00	0.00	0.00	
16,100.0	90.00	89.92	7,955.0	-471.2	8,041.9	8,041.3	0.00	0.00	0.00	
16,200.0	90.00	89.92	7,955.0	-471.0	8,141.9	8,141.3	0.00	0.00	0.00	
16,300.0	90.00	89.92	7,955.0	-470.9	8,241.9	8,241.3	0.00	0.00	0.00	
16,400.0	90.00	89.92	7,955.0	-470.7	8,341.9	8,341.3	0.00	0.00	0.00	
16,500.0	90.00	89.92	7,955.0	-470.6	8,441.9	8,441.3	0.00	0.00	0.00	
16,600.0	90.00	89.92	7,955.0	-470.4	8,541.9	8,541.3	0.00	0.00	0.00	
16,700.0	90.00	89.92	7,955.0	-470.3	8,641.9	8,641.3	0.00	0.00	0.00	
16,800.0	90.00	89.92	7,955.0	-470.1	8,741.9	8,741.3	0.00	0.00	0.00	
16,900.0	90.00	89.92	7,955.0	-470.0	8,841.9	8,841.3	0.00	0.00	0.00	
17,000.0	90.00	89.92	7,955.0	-469.9	8,941.9	8,941.3	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ace Stern Vegas#124H
Company:	Matador Production Company	TVD Reference:	KB @ 3095.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3095.5usft
Site:	Ace Stern Vegas	North Reference:	Grid
Well:	Ace Stern Vegas #124H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM 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)	
17,100.0	90.00	89.92	7,955.0	-469.7	9,041.9	9,041.3	0.00	0.00	0.00	
17,200.0	90.00	89.92	7,955.0	-469.6	9,141.9	9,141.3	0.00	0.00	0.00	
17,300.0	90.00	89.92	7,955.0	-469.4	9,241.9	9,241.3	0.00	0.00	0.00	
17,400.0	90.00	89.92	7,955.0	-469.3	9,341.9	9,341.3	0.00	0.00	0.00	
17,500.0	90.00	89.92	7,955.0	-469.1	9,441.9	9,441.3	0.00	0.00	0.00	
17,600.0	90.00	89.92	7,955.0	-469.0	9,541.9	9,541.3	0.00	0.00	0.00	
17,700.0	90.00	89.92	7,955.0	-468.8	9,641.9	9,641.3	0.00	0.00	0.00	
17,800.0	90.00	89.92	7,955.0	-468.7	9,741.9	9,741.3	0.00	0.00	0.00	
17,900.0	90.00	89.92	7,955.0	-468.5	9,841.9	9,841.3	0.00	0.00	0.00	
18,000.0	90.00	89.92	7,955.0	-468.4	9,941.9	9,941.3	0.00	0.00	0.00	
18,100.0	90.00	89.92	7,955.0	-468.2	10,041.9	10,041.3	0.00	0.00	0.00	
18,200.0	90.00	89.92	7,955.0	-468.1	10,141.9	10,141.3	0.00	0.00	0.00	
18,258.9	90.00	89.92	7,955.0	-468.0	10,200.8	10,200.1	0.00	0.00	0.00	
TD at 18258.9 - BHL - Ace Stern Vegas #124H										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
VP - Ace Stern Vegas - hit/miss target - Shape - Point	0.00	0.00	7,382.0	-583.0	-299.2	499,299.00	571,874.00	32° 22' 20.903 N	104° 6' 1.915 W	
BHL - Ace Stern Vega - plan hits target center - Point	0.00	0.00	7,955.0	-468.0	10,200.8	499,413.91	582,374.00	32° 22' 21.798 N	104° 3' 59.478 W	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
478.0	478.0	Salado (Top SALT)				
947.0	947.0	Castile (T)				
2,554.1	2,549.0	G30:CS14-CSB (BASE SALT)				
2,591.4	2,586.0	G26: Bell Cyn (T. Delaware)				
3,423.5	3,410.0	Z (G13: Cherry Cyn.)				
4,643.4	4,618.0	Z (G7: Brushy Cyn.)				
5,768.4	5,732.0	Z (G5: L. Brushy Cyn.)				
6,014.7	5,976.0	Z (G4: BSG (CS9))				
6,475.9	6,433.0	Z (L8.2: U. Avalon Shale)				
6,589.4	6,546.0	Z (L6.3: Avalon Carb)				
6,654.5	6,611.0	Z (L6.2: L. Avalon Shale)				
6,745.6	6,702.0	Z (L5.3: FBSC)				
7,071.7	7,028.0	Z (L5.1: FBSC)				
7,349.7	7,306.0	Z (L4.3: SBSC)				
7,799.7	7,730.0	Z (L4.1: SBSC)				

Planning Report

Database:	EDM 5000.14 Server	Local Co-ordinate Reference:	Well Ace Stern Vegas#124H
Company:	Matador Production Company	TVD Reference:	KB @ 3095.5usft
Project:	Rustler Breaks	MD Reference:	KB @ 3095.5usft
Site:	Ace Stern Vegas	North Reference:	Grid
Well:	Ace Stern Vegas #124H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	BLM Plan #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.0	1,500.0	0.0	0.0	Start Build 1.00
2,300.0	2,297.4	-49.6	-25.5	Start 4040.7 hold at 2300.0 MD
6,340.7	6,298.7	-549.9	-282.3	Start Drop -1.50
6,874.0	6,830.3	-583.0	-299.2	Start 551.7 hold at 6874.0 MD
7,425.7	7,382.0	-583.0	-299.2	Start Build 10.00
8,325.7	7,955.0	-507.2	268.7	Start DLS 2.00 TFO 90.00
8,701.4	7,955.0	-482.0	643.4	Start 9557.4 hold at 8701.4 MD
18,258.9	7,955.0	-468.0	10,200.8	TD at 18258.9