

**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 323639

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

|                                                                                                      |                                               |                               |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------|
| 1. Operator Name and Address<br>MATADOR PRODUCTION COMPANY<br>One Lincoln Centre<br>Dallas, TX 75240 |                                               | 2. OGRID Number<br>228937     |
|                                                                                                      |                                               | 3. API Number<br>30-015-49828 |
| 4. Property Code<br>328503                                                                           | 5. Property Name<br>ACE STERN VEGAS FEE 22 21 | 6. Well No.<br>114H           |

**7. Surface Location**

|               |               |                 |              |         |                   |               |                  |               |                |
|---------------|---------------|-----------------|--------------|---------|-------------------|---------------|------------------|---------------|----------------|
| UL - Lot<br>M | Section<br>21 | Township<br>22S | Range<br>28E | Lot Idn | Feet From<br>1050 | N/S Line<br>S | Feet From<br>320 | E/W Line<br>W | County<br>Eddy |
|---------------|---------------|-----------------|--------------|---------|-------------------|---------------|------------------|---------------|----------------|

**8. Proposed Bottom Hole Location**

|               |               |                 |              |              |                  |               |                  |               |                |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|------------------|---------------|----------------|
| UL - Lot<br>P | Section<br>22 | Township<br>22S | Range<br>28E | Lot Idn<br>P | Feet From<br>660 | N/S Line<br>S | Feet From<br>110 | E/W Line<br>E | County<br>Eddy |
|---------------|---------------|-----------------|--------------|--------------|------------------|---------------|------------------|---------------|----------------|

**9. Pool Information**

|                                  |       |
|----------------------------------|-------|
| CULEBRA BLUFF;BONE SPRING, SOUTH | 15011 |
|----------------------------------|-------|

**Additional Well Information**

|                           |                             |                                        |                         |                                    |
|---------------------------|-----------------------------|----------------------------------------|-------------------------|------------------------------------|
| 11. Work Type<br>New Well | 12. Well Type<br>OIL        | 13. Cable/Rotary                       | 14. Lease Type<br>State | 15. Ground Level Elevation<br>3067 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>17338 | 18. Formation<br>Bone Spring           | 19. Contractor          | 20. Spud Date<br>8/30/2022         |
| 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           | 605             | 0             |
| Int1 | 9.875     | 7.625       | 29.7             | 6443          | 1775            | 0             |
| Prod | 6.75      | 5.5         | 20               | 17338         | 980             | 6243          |

**Casing/Cement Program: Additional Comments**

|  |
|--|
|  |
|--|

**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.<br>I further certify I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. | <b>OIL CONSERVATION DIVISION</b> |                                 |
| Signature:                                                                                                                                                                                                                                                                              |                                  |                                 |
| Printed Name: Electronically filed by Brett A Jennings                                                                                                                                                                                                                                  | Approved By: Katherine Pickford  |                                 |
| Title: Regulatory Analyst                                                                                                                                                                                                                                                               | Title: Geoscientist              |                                 |
| Email Address: brett.jennings@matadorresources.com                                                                                                                                                                                                                                      | Approved Date: 8/17/2022         | Expiration Date: 8/17/2024      |
| Date: 8/17/2022                                                                                                                                                                                                                                                                         | 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

|                                                              |                      |                                                                 |                      |                                                                    |                                         |
|--------------------------------------------------------------|----------------------|-----------------------------------------------------------------|----------------------|--------------------------------------------------------------------|-----------------------------------------|
| <sup>1</sup> API Number<br><b>30-0115-49828</b>              |                      | <sup>2</sup> Pool Code<br><b>15011</b>                          |                      | <sup>3</sup> Pool Name<br><b>Culebra Bluff; Bone Spring, South</b> |                                         |
| <sup>4</sup> Property Code<br><b>328503</b>                  |                      | <sup>5</sup> Property Name<br><b>ACE STERN VEGAS FEE 22-21</b>  |                      |                                                                    | <sup>6</sup> Well Number<br><b>114H</b> |
| <sup>7</sup> OGRID No.<br><b>228937</b>                      |                      | <sup>8</sup> Operator Name<br><b>MATADOR PRODUCTION COMPANY</b> |                      |                                                                    | <sup>9</sup> Elevation<br><b>3067'</b>  |
| <sup>10</sup> Surface Location                               |                      |                                                                 |                      |                                                                    |                                         |
| UL or lot no.<br><b>M</b>                                    | Section<br><b>21</b> | Township<br><b>22-S</b>                                         | Range<br><b>28-E</b> | Lot Idn<br><b>-</b>                                                | Feet from the<br><b>1050'</b>           |
|                                                              |                      |                                                                 |                      | North/South line<br><b>SOUTH</b>                                   | Feet from the<br><b>320'</b>            |
|                                                              |                      |                                                                 |                      | East/West line<br><b>WEST</b>                                      | County<br><b>EDDY</b>                   |
| <sup>11</sup> Bottom Hole Location If Different From Surface |                      |                                                                 |                      |                                                                    |                                         |
| UL or lot no.<br><b>P</b>                                    | Section<br><b>22</b> | Township<br><b>22-S</b>                                         | Range<br><b>28-E</b> | Lot Idn<br><b>-</b>                                                | Feet from the<br><b>660'</b>            |
|                                                              |                      |                                                                 |                      | North/South line<br><b>SOUTH</b>                                   | Feet from the<br><b>110'</b>            |
|                                                              |                      |                                                                 |                      | East/West line<br><b>EAST</b>                                      | County<br><b>EDDY</b>                   |
| <sup>12</sup> Dedicated Acres<br><b>320</b>                  |                      | <sup>13</sup> Joint or Infill                                   |                      | <sup>14</sup> Consolidation Code                                   |                                         |
|                                                              |                      |                                                                 |                      | <sup>15</sup> Order No.                                            |                                         |

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><b>16</b></p> <p><b>SURFACE LOCATION</b><br/>NEW MEXICO EAST<br/>NAD 1927<br/>X=572143<br/>Y=499772<br/>LAT.: N 32.3737713<br/>LONG.: W 104.0996562<br/>NAD 1983<br/>X=613325<br/>Y=499832<br/>LAT.: N 32.3738913<br/>LONG.: W 104.1001546</p>                       |  | <p><b>17 OPERATOR CERTIFICATION</b></p> <p>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><i>Hanna Bollenbach</i> 8/11/22<br/>Signature Date<br/>Hanna Bollenbach<br/>Printed Name<br/>hanna.bollenbach@matadorresources.com<br/>E-mail Address</p> |  |
| <p><b>FIRST PERFORATION POINT</b><br/>NEW MEXICO EAST<br/>NAD 1927<br/>X=571924<br/>Y=499381<br/>LAT.: N 32.3726996<br/>LONG.: W 104.1003694<br/>NAD 1983<br/>X=613106<br/>Y=499441<br/>LAT.: N 32.3728195<br/>LONG.: W 104.1008678</p>                                 |  | <p><b>18 SURVEYOR CERTIFICATION</b></p> <p>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>08/08/2022<br/>Date of Survey<br/>Signature and Seal of Professional Surveyor<br/>MICHAEL B. BROWN<br/>NEW MEXICO<br/>18329<br/>PROFESSIONAL SURVEYOR<br/>Certificate Number</p>                                                                                                                                                                                                                                                                                |  |
| <p><b>LAST PERFORATION POINT/</b><br/><b>BOTTOM HOLE LOCATION</b><br/>NEW MEXICO EAST<br/>NAD 1927<br/>X=582324<br/>Y=499397<br/>LAT.: N 32.3726747<br/>LONG.: W 104.0666838<br/>NAD 1983<br/>X=623506<br/>Y=499457<br/>LAT.: N 32.3727951<br/>LONG.: W 104.0671810</p> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |

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

Form APD Conditions

Permit 323639

**PERMIT CONDITIONS OF APPROVAL**

|                                                                                                             |                                          |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------|
| Operator Name and Address:<br>MATADOR PRODUCTION COMPANY [228937]<br>One Lincoln Centre<br>Dallas, TX 75240 | API Number:<br>30-015-49828              |
|                                                                                                             | Well:<br>ACE STERN VEGAS FEE 22 21 #114H |

| OCD<br>Reviewer | Condition                                                                                                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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       | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud                                                                                                                                                                   |
| 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  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Submit Electronically  
Via E-permitting

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** Matador Production Company **OGRID:** 228937 **Date:** 08/09/2022

**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 114H | TBD | D 21-22S-28E | 1,020' FSL 320' FWL | 1,200                 | 3,500                 | 3,600                            |

**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 114H | TBD | 09/13/2022 | 09/26/2022      | 11/20/2022                   | 12/15/2022             | 12/15/2022            |

**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<br/>DN: cn=Omar Enriquez, o=MG,<br/>email=oenriquez@matadorresources.com,<br/>c=US<br/>Date: 2022.08.09 16:38:43 -0500</small> |
| Printed Name: Omar Enriquez                                                                        |                                                                                                                                                                         |
| Title: Sr. Production Engineer                                                                     |                                                                                                                                                                         |
| E-mail Address: <a href="mailto:oenriquez@matadorresources.com">oenriquez@matadorresources.com</a> |                                                                                                                                                                         |
| Date: 08/09/2022                                                                                   |                                                                                                                                                                         |
| Phone: (972)-587-4638                                                                              |                                                                                                                                                                         |
| <b>OIL CONSERVATION DIVISION</b><br><b>(Only applicable when submitted as a standalone form)</b>   |                                                                                                                                                                         |
| Approved By:                                                                                       |                                                                                                                                                                         |
| Title:                                                                                             |                                                                                                                                                                         |
| Approval Date:                                                                                     |                                                                                                                                                                         |
| Conditions of Approval:                                                                            |                                                                                                                                                                         |

**Addendum to Natural Gas Management Plan for Matador's****Ace Stern Vegas 114H****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 |
|----------------------|-----------------------|-----------------------|----------------------------------|
| Ace Stern Vegas 114H | 1,200                 | 3,500                 | 3,600                            |

**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 #114H**

**Wellbore #1**

**Plan: State Plan #1**

## **Standard Planning Report**

**12 August, 2022**

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | State Plan #1              |                                     |                           |

|                    |                                      |                      |                             |
|--------------------|--------------------------------------|----------------------|-----------------------------|
| <b>Project</b>     | Rustler Breaks,                      |                      |                             |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level              |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                             |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      | Using geodetic scale factor |

| Site                    |     | Ace Stern Vegas       |                 |              |                   |
|-------------------------|-----|-----------------------|-----------------|--------------|-------------------|
| Site Position:<br>From: | Map | Northing:             | 499,867.00 usft | Latitude:    | 32° 22' 25.372 N  |
|                         |     | Easting:              | 613,395.00 usft | Longitude:   | 103° 57' 57.745 W |
|                         |     | Position Uncertainty: | 0.0 usft        | Slot Radius: | 13-3/16 "         |

|                      |                       |                |                     |                 |               |                  |
|----------------------|-----------------------|----------------|---------------------|-----------------|---------------|------------------|
| Well                 | Ace Stern Vegas #114H |                |                     |                 |               |                  |
| Well Position        | +N/-S                 | -95.2 usft     | Northing:           | 499,771.85 usft | Latitude:     | 32° 22' 25.577 N |
|                      | +E/-W                 | -41,254.8 usft | Easting:            | 572,143.37 usft | Longitude:    | 104° 5' 58.762 W |
| Position Uncertainty |                       | 0.0 usft       | Wellhead Elevation: |                 | Ground Level: | 3,067.0 usft     |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF2015          | 8/9/2022           | 6.65                   | 60.05                | 47,445.29903396            |

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

|                                 |                        |                          |                             |                     |
|---------------------------------|------------------------|--------------------------|-----------------------------|---------------------|
| <b>Plan Survey Tool Program</b> | <b>Date</b>            | 8/12/2022                |                             |                     |
| <b>Depth From (usft)</b>        | <b>Depth To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b>            | <b>Remarks</b>      |
| 1                               | 0.0                    | 17,343.6                 | State Plan #1 (Wellbore #1) | MWD                 |
|                                 |                        |                          |                             | OWSG MWD - Standard |

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | 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    |                      |
| 1,200.0               | 0.00            | 0.00        | 1,200.0               | 0.0          | 0.0          | 0.00                    | 0.00                   | 0.00                  | 0.00    |                      |
| 2,000.0               | 8.00            | 206.43      | 1,997.4               | -49.9        | -24.8        | 1.00                    | 1.00                   | 0.00                  | 206.43  |                      |
| 5,680.7               | 8.00            | 206.43      | 5,642.2               | -508.6       | -252.9       | 0.00                    | 0.00                   | 0.00                  | 0.00    |                      |
| 6,214.0               | 0.00            | 0.00        | 6,173.8               | -541.9       | -269.4       | 1.50                    | -1.50                  | 0.00                  | 180.00  |                      |
| 6,546.1               | 0.00            | 0.00        | 6,506.0               | -541.9       | -269.4       | 0.00                    | 0.00                   | 0.00                  | 0.00    | Ace Stern Vegas #1   |
| 7,436.1               | 89.00           | 79.32       | 7,078.9               | -437.6       | 283.8        | 10.00                   | 10.00                  | 0.00                  | 79.32   |                      |
| 7,966.0               | 89.00           | 89.92       | 7,088.1               | -388.0       | 810.5        | 2.00                    | 0.00                   | 2.00                  | 90.09   |                      |
| 12,454.8              | 89.00           | 89.92       | 7,166.4               | -381.7       | 5,298.6      | 0.00                    | 0.00                   | 0.00                  | 0.00    | Start AC - Big Chief |
| 12,588.6              | 89.00           | 85.91       | 7,168.7               | -376.8       | 5,432.2      | 3.00                    | 0.00                   | -3.00                 | -90.01  |                      |
| 14,058.5              | 89.00           | 85.91       | 7,194.3               | -271.9       | 6,898.2      | 0.00                    | 0.00                   | 0.00                  | 0.00    | Avoid Big Chief #2   |
| 14,367.8              | 89.00           | 92.09       | 7,199.7               | -266.5       | 7,207.2      | 2.00                    | 0.00                   | 2.00                  | 90.06   |                      |
| 17,343.8              | 89.00           | 92.09       | 7,251.5               | -375.1       | 10,180.8     | 0.00                    | 0.00                   | 0.00                  | 0.00    | Ace Stern Vegas #1   |

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | 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                  |
| 248.0                                 | 0.00            | 0.00        | 248.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>Depth (Rustler)</b>                |                 |             |                       |              |              |                         |                         |                        |                       |
| 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                  |
| 447.0                                 | 0.00            | 0.00        | 447.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>Depth (Salado)</b>                 |                 |             |                       |              |              |                         |                         |                        |                       |
| 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                  |
| 962.0                                 | 0.00            | 0.00        | 962.0                 | 0.0          | 0.0          | 0.0                     | 0.00                    | 0.00                   | 0.00                  |
| <b>Depth (Castile (T))</b>            |                 |             |                       |              |              |                         |                         |                        |                       |
| 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                  |
| <b>Start Build 1.00</b>               |                 |             |                       |              |              |                         |                         |                        |                       |
| 1,300.0                               | 1.00            | 206.43      | 1,300.0               | -0.8         | -0.4         | -0.4                    | 1.00                    | 1.00                   | 0.00                  |
| 1,400.0                               | 2.00            | 206.43      | 1,400.0               | -3.1         | -1.6         | -1.6                    | 1.00                    | 1.00                   | 0.00                  |
| 1,500.0                               | 3.00            | 206.43      | 1,499.9               | -7.0         | -3.5         | -3.5                    | 1.00                    | 1.00                   | 0.00                  |
| 1,600.0                               | 4.00            | 206.43      | 1,599.7               | -12.5        | -6.2         | -6.2                    | 1.00                    | 1.00                   | 0.00                  |
| 1,700.0                               | 5.00            | 206.43      | 1,699.4               | -19.5        | -9.7         | -9.7                    | 1.00                    | 1.00                   | 0.00                  |
| 1,800.0                               | 6.00            | 206.43      | 1,798.9               | -28.1        | -14.0        | -14.0                   | 1.00                    | 1.00                   | 0.00                  |
| 1,900.0                               | 7.00            | 206.43      | 1,898.3               | -38.2        | -19.0        | -19.1                   | 1.00                    | 1.00                   | 0.00                  |
| 2,000.0                               | 8.00            | 206.43      | 1,997.4               | -49.9        | -24.8        | -24.9                   | 1.00                    | 1.00                   | 0.00                  |
| <b>Start 3680.7 hold at 2000.0 MD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,100.0                               | 8.00            | 206.43      | 2,096.4               | -62.4        | -31.0        | -31.1                   | 0.00                    | 0.00                   | 0.00                  |
| 2,200.0                               | 8.00            | 206.43      | 2,195.5               | -74.9        | -37.2        | -37.3                   | 0.00                    | 0.00                   | 0.00                  |
| 2,300.0                               | 8.00            | 206.43      | 2,294.5               | -87.3        | -43.4        | -43.5                   | 0.00                    | 0.00                   | 0.00                  |
| 2,400.0                               | 8.00            | 206.43      | 2,393.5               | -99.8        | -49.6        | -49.7                   | 0.00                    | 0.00                   | 0.00                  |
| 2,500.0                               | 8.00            | 206.43      | 2,492.5               | -112.2       | -55.8        | -56.0                   | 0.00                    | 0.00                   | 0.00                  |
| 2,564.0                               | 8.00            | 206.43      | 2,556.0               | -120.2       | -59.8        | -59.9                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Depth (G30:CS14-CSB)</b>           |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,600.0                               | 8.00            | 206.43      | 2,591.6               | -124.7       | -62.0        | -62.2                   | 0.00                    | 0.00                   | 0.00                  |
| 2,600.4                               | 8.00            | 206.43      | 2,591.9               | -124.7       | -62.0        | -62.2                   | 0.00                    | 0.00                   | 0.00                  |
| <b>Depth (G26: Bell Cyn.)</b>         |                 |             |                       |              |              |                         |                         |                        |                       |
| 2,700.0                               | 8.00            | 206.43      | 2,690.6               | -137.2       | -68.2        | -68.4                   | 0.00                    | 0.00                   | 0.00                  |
| 2,800.0                               | 8.00            | 206.43      | 2,789.6               | -149.6       | -74.4        | -74.6                   | 0.00                    | 0.00                   | 0.00                  |
| 2,900.0                               | 8.00            | 206.43      | 2,888.6               | -162.1       | -80.6        | -80.8                   | 0.00                    | 0.00                   | 0.00                  |
| 3,000.0                               | 8.00            | 206.43      | 2,987.7               | -174.6       | -86.8        | -87.0                   | 0.00                    | 0.00                   | 0.00                  |
| 3,100.0                               | 8.00            | 206.43      | 3,086.7               | -187.0       | -93.0        | -93.2                   | 0.00                    | 0.00                   | 0.00                  |
| 3,200.0                               | 8.00            | 206.43      | 3,185.7               | -199.5       | -99.2        | -99.4                   | 0.00                    | 0.00                   | 0.00                  |
| 3,284.3                               | 8.00            | 206.43      | 3,269.2               | -210.0       | -104.4       | -104.7                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Depth (G16: Manzanita)</b>         |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,300.0                               | 8.00            | 206.43      | 3,284.8               | -211.9       | -105.4       | -105.7                  | 0.00                    | 0.00                   | 0.00                  |
| 3,392.2                               | 8.00            | 206.43      | 3,376.1               | -223.4       | -111.1       | -111.4                  | 0.00                    | 0.00                   | 0.00                  |
| <b>Depth (G13: Cherry Cyn.)</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 3,400.0                               | 8.00            | 206.43      | 3,383.8               | -224.4       | -111.6       | -111.9                  | 0.00                    | 0.00                   | 0.00                  |
| 3,500.0                               | 8.00            | 206.43      | 3,482.8               | -236.9       | -117.8       | -118.1                  | 0.00                    | 0.00                   | 0.00                  |
| 3,600.0                               | 8.00            | 206.43      | 3,581.8               | -249.3       | -123.9       | -124.3                  | 0.00                    | 0.00                   | 0.00                  |

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | 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) |
| 3,700.0                                        | 8.00            | 206.43      | 3,680.9               | -261.8       | -130.1       | -130.5                  | 0.00                    | 0.00                   | 0.00                  |
| 3,800.0                                        | 8.00            | 206.43      | 3,779.9               | -274.3       | -136.3       | -136.7                  | 0.00                    | 0.00                   | 0.00                  |
| 3,900.0                                        | 8.00            | 206.43      | 3,878.9               | -286.7       | -142.5       | -142.9                  | 0.00                    | 0.00                   | 0.00                  |
| 4,000.0                                        | 8.00            | 206.43      | 3,977.9               | -299.2       | -148.7       | -149.1                  | 0.00                    | 0.00                   | 0.00                  |
| 4,100.0                                        | 8.00            | 206.43      | 4,077.0               | -311.6       | -154.9       | -155.4                  | 0.00                    | 0.00                   | 0.00                  |
| 4,200.0                                        | 8.00            | 206.43      | 4,176.0               | -324.1       | -161.1       | -161.6                  | 0.00                    | 0.00                   | 0.00                  |
| 4,300.0                                        | 8.00            | 206.43      | 4,275.0               | -336.6       | -167.3       | -167.8                  | 0.00                    | 0.00                   | 0.00                  |
| 4,400.0                                        | 8.00            | 206.43      | 4,374.0               | -349.0       | -173.5       | -174.0                  | 0.00                    | 0.00                   | 0.00                  |
| 4,500.0                                        | 8.00            | 206.43      | 4,473.1               | -361.5       | -179.7       | -180.2                  | 0.00                    | 0.00                   | 0.00                  |
| 4,600.0                                        | 8.00            | 206.43      | 4,572.1               | -374.0       | -185.9       | -186.4                  | 0.00                    | 0.00                   | 0.00                  |
| 4,629.9                                        | 8.00            | 206.43      | 4,601.7               | -377.7       | -187.8       | -188.3                  | 0.00                    | 0.00                   | 0.00                  |
| Depth (G7: Brushy Cyn.)                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 4,700.0                                        | 8.00            | 206.43      | 4,671.1               | -386.4       | -192.1       | -192.6                  | 0.00                    | 0.00                   | 0.00                  |
| 4,800.0                                        | 8.00            | 206.43      | 4,770.2               | -398.9       | -198.3       | -198.8                  | 0.00                    | 0.00                   | 0.00                  |
| 4,900.0                                        | 8.00            | 206.43      | 4,869.2               | -411.3       | -204.5       | -205.1                  | 0.00                    | 0.00                   | 0.00                  |
| 5,000.0                                        | 8.00            | 206.43      | 4,968.2               | -423.8       | -210.7       | -211.3                  | 0.00                    | 0.00                   | 0.00                  |
| 5,100.0                                        | 8.00            | 206.43      | 5,067.2               | -436.3       | -216.9       | -217.5                  | 0.00                    | 0.00                   | 0.00                  |
| 5,200.0                                        | 8.00            | 206.43      | 5,166.3               | -448.7       | -223.1       | -223.7                  | 0.00                    | 0.00                   | 0.00                  |
| 5,300.0                                        | 8.00            | 206.43      | 5,265.3               | -461.2       | -229.3       | -229.9                  | 0.00                    | 0.00                   | 0.00                  |
| 5,400.0                                        | 8.00            | 206.43      | 5,364.3               | -473.6       | -235.5       | -236.1                  | 0.00                    | 0.00                   | 0.00                  |
| 5,500.0                                        | 8.00            | 206.43      | 5,463.3               | -486.1       | -241.7       | -242.3                  | 0.00                    | 0.00                   | 0.00                  |
| 5,600.0                                        | 8.00            | 206.43      | 5,562.4               | -498.6       | -247.9       | -248.6                  | 0.00                    | 0.00                   | 0.00                  |
| 5,680.7                                        | 8.00            | 206.43      | 5,642.2               | -508.6       | -252.9       | -253.6                  | 0.00                    | 0.00                   | 0.00                  |
| Start Drop -1.50                               |                 |             |                       |              |              |                         |                         |                        |                       |
| 5,700.0                                        | 7.71            | 206.43      | 5,661.4               | -511.0       | -254.0       | -254.7                  | 1.50                    | -1.50                  | 0.00                  |
| 5,800.0                                        | 6.21            | 206.43      | 5,760.7               | -521.8       | -259.4       | -260.2                  | 1.50                    | -1.50                  | 0.00                  |
| 5,900.0                                        | 4.71            | 206.43      | 5,860.2               | -530.4       | -263.7       | -264.4                  | 1.50                    | -1.50                  | 0.00                  |
| 6,000.0                                        | 3.21            | 206.43      | 5,960.0               | -536.5       | -266.7       | -267.5                  | 1.50                    | -1.50                  | 0.00                  |
| 6,032.4                                        | 2.72            | 206.43      | 5,992.3               | -538.0       | -267.5       | -268.2                  | 1.50                    | -1.50                  | 0.00                  |
| Depth (G4: BSGI (CS9))                         |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,100.0                                        | 1.71            | 206.43      | 6,059.9               | -540.4       | -268.6       | -269.4                  | 1.50                    | -1.50                  | 0.00                  |
| 6,158.4                                        | 0.83            | 206.43      | 6,118.3               | -541.5       | -269.2       | -270.0                  | 1.50                    | -1.50                  | 0.00                  |
| Depth (G4.1: AVALON-SS)                        |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,190.4                                        | 0.35            | 206.43      | 6,150.3               | -541.8       | -269.4       | -270.1                  | 1.50                    | -1.50                  | 0.00                  |
| Depth (G3.3: Avalon SS (B))                    |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,200.0                                        | 0.21            | 206.43      | 6,159.9               | -541.9       | -269.4       | -270.1                  | 1.50                    | -1.50                  | 0.00                  |
| 6,214.0                                        | 0.00            | 0.00        | 6,173.8               | -541.9       | -269.4       | -270.2                  | 1.50                    | -1.50                  | 0.00                  |
| Start 332.2 hold at 6214.0 MD                  |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,300.0                                        | 0.00            | 0.00        | 6,259.9               | -541.9       | -269.4       | -270.2                  | 0.00                    | 0.00                   | 0.00                  |
| 6,400.0                                        | 0.00            | 0.00        | 6,359.9               | -541.9       | -269.4       | -270.2                  | 0.00                    | 0.00                   | 0.00                  |
| 6,500.0                                        | 0.00            | 0.00        | 6,459.9               | -541.9       | -269.4       | -270.2                  | 0.00                    | 0.00                   | 0.00                  |
| 6,517.4                                        | 0.00            | 0.00        | 6,477.3               | -541.9       | -269.4       | -270.2                  | 0.00                    | 0.00                   | 0.00                  |
| Depth (L8.2: U. Avalon Shale)                  |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,546.1                                        | 0.00            | 0.00        | 6,506.0               | -541.9       | -269.4       | -270.2                  | 0.00                    | 0.00                   | 0.00                  |
| Start Build 10.00 - Ace Stern Vegas #114H - VP |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,600.0                                        | 5.39            | 79.32       | 6,559.8               | -541.4       | -266.9       | -267.7                  | 10.00                   | 10.00                  | 0.00                  |
| 6,600.6                                        | 5.44            | 79.32       | 6,560.3               | -541.4       | -266.9       | -267.6                  | 10.00                   | 10.00                  | 0.00                  |
| Depth (L6.3: Avalon Carb)                      |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,680.9                                        | 13.48           | 79.32       | 6,639.6               | -539.0       | -253.9       | -254.6                  | 10.00                   | 10.00                  | 0.00                  |
| Depth (L6.2: L. Avalon Shale)                  |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,700.0                                        | 15.39           | 79.32       | 6,658.0               | -538.1       | -249.2       | -250.0                  | 10.00                   | 10.00                  | 0.00                  |
| 6,769.8                                        | 22.37           | 79.32       | 6,724.0               | -533.9       | -227.0       | -227.8                  | 10.00                   | 10.00                  | 0.00                  |

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | 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) |
| <b>Depth (L5.3: FBSC)</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 6,800.0                               | 25.39           | 79.32       | 6,751.6               | -531.7       | -215.0       | -215.8                  | 10.00                   | 10.00                  | 0.00                  |
| 6,900.0                               | 35.39           | 79.32       | 6,837.8               | -522.3       | -165.4       | -166.1                  | 10.00                   | 10.00                  | 0.00                  |
| 7,000.0                               | 45.39           | 79.32       | 6,913.9               | -510.3       | -101.8       | -102.5                  | 10.00                   | 10.00                  | 0.00                  |
| 7,100.0                               | 55.39           | 79.32       | 6,977.5               | -496.0       | -26.2        | -26.9                   | 10.00                   | 10.00                  | 0.00                  |
| 7,200.0                               | 65.39           | 79.32       | 7,026.9               | -480.0       | 59.1         | 58.5                    | 10.00                   | 10.00                  | 0.00                  |
| 7,232.4                               | 68.62           | 79.32       | 7,039.5               | -474.4       | 88.4         | 87.7                    | 10.00                   | 10.00                  | 0.00                  |
| <b>Depth (L5.1: FBSC)</b>             |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,300.0                               | 75.39           | 79.32       | 7,060.4               | -462.5       | 151.6        | 150.9                   | 10.00                   | 10.00                  | 0.00                  |
| 7,400.0                               | 85.39           | 79.32       | 7,077.1               | -444.3       | 248.3        | 247.7                   | 10.00                   | 10.00                  | 0.00                  |
| 7,436.1                               | 89.00           | 79.32       | 7,078.9               | -437.6       | 283.8        | 283.2                   | 10.00                   | 10.00                  | 0.00                  |
| <b>Start DLS 2.00 TFO 90.09</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 7,500.0                               | 89.00           | 80.60       | 7,080.0               | -426.5       | 346.7        | 346.1                   | 2.00                    | 0.00                   | 2.00                  |
| 7,600.0                               | 89.00           | 82.60       | 7,081.7               | -411.8       | 445.6        | 445.0                   | 2.00                    | 0.00                   | 2.00                  |
| 7,700.0                               | 89.00           | 84.60       | 7,083.5               | -400.7       | 544.9        | 544.4                   | 2.00                    | 0.00                   | 2.00                  |
| 7,800.0                               | 89.00           | 86.60       | 7,085.2               | -393.0       | 644.6        | 644.1                   | 2.00                    | 0.00                   | 2.00                  |
| 7,900.0                               | 89.00           | 88.60       | 7,087.0               | -388.8       | 744.5        | 744.0                   | 2.00                    | 0.00                   | 2.00                  |
| 7,966.0                               | 89.00           | 89.92       | 7,088.1               | -388.0       | 810.5        | 810.0                   | 2.00                    | 0.00                   | 2.00                  |
| <b>Start 4488.8 hold at 7966.0 MD</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 8,000.0                               | 89.00           | 89.92       | 7,088.7               | -387.9       | 844.5        | 843.9                   | 0.00                    | 0.00                   | 0.00                  |
| 8,100.0                               | 89.00           | 89.92       | 7,090.5               | -387.8       | 944.5        | 943.9                   | 0.00                    | 0.00                   | 0.00                  |
| 8,200.0                               | 89.00           | 89.92       | 7,092.2               | -387.6       | 1,044.5      | 1,043.9                 | 0.00                    | 0.00                   | 0.00                  |
| 8,300.0                               | 89.00           | 89.92       | 7,094.0               | -387.5       | 1,144.4      | 1,143.9                 | 0.00                    | 0.00                   | 0.00                  |
| 8,400.0                               | 89.00           | 89.92       | 7,095.7               | -387.4       | 1,244.4      | 1,243.9                 | 0.00                    | 0.00                   | 0.00                  |
| 8,500.0                               | 89.00           | 89.92       | 7,097.4               | -387.2       | 1,344.4      | 1,343.9                 | 0.00                    | 0.00                   | 0.00                  |
| 8,600.0                               | 89.00           | 89.92       | 7,099.2               | -387.1       | 1,444.4      | 1,443.9                 | 0.00                    | 0.00                   | 0.00                  |
| 8,700.0                               | 89.00           | 89.92       | 7,100.9               | -386.9       | 1,544.4      | 1,543.8                 | 0.00                    | 0.00                   | 0.00                  |
| 8,800.0                               | 89.00           | 89.92       | 7,102.7               | -386.8       | 1,644.4      | 1,643.8                 | 0.00                    | 0.00                   | 0.00                  |
| 8,900.0                               | 89.00           | 89.92       | 7,104.4               | -386.7       | 1,744.3      | 1,743.8                 | 0.00                    | 0.00                   | 0.00                  |
| 9,000.0                               | 89.00           | 89.92       | 7,106.2               | -386.5       | 1,844.3      | 1,843.8                 | 0.00                    | 0.00                   | 0.00                  |
| 9,100.0                               | 89.00           | 89.92       | 7,107.9               | -386.4       | 1,944.3      | 1,943.8                 | 0.00                    | 0.00                   | 0.00                  |
| 9,200.0                               | 89.00           | 89.92       | 7,109.7               | -386.2       | 2,044.3      | 2,043.8                 | 0.00                    | 0.00                   | 0.00                  |
| 9,300.0                               | 89.00           | 89.92       | 7,111.4               | -386.1       | 2,144.3      | 2,143.7                 | 0.00                    | 0.00                   | 0.00                  |
| 9,400.0                               | 89.00           | 89.92       | 7,113.1               | -386.0       | 2,244.3      | 2,243.7                 | 0.00                    | 0.00                   | 0.00                  |
| 9,500.0                               | 89.00           | 89.92       | 7,114.9               | -385.8       | 2,344.3      | 2,343.7                 | 0.00                    | 0.00                   | 0.00                  |
| 9,600.0                               | 89.00           | 89.92       | 7,116.6               | -385.7       | 2,444.2      | 2,443.7                 | 0.00                    | 0.00                   | 0.00                  |
| 9,700.0                               | 89.00           | 89.92       | 7,118.4               | -385.5       | 2,544.2      | 2,543.7                 | 0.00                    | 0.00                   | 0.00                  |
| 9,800.0                               | 89.00           | 89.92       | 7,120.1               | -385.4       | 2,644.2      | 2,643.7                 | 0.00                    | 0.00                   | 0.00                  |
| 9,900.0                               | 89.00           | 89.92       | 7,121.9               | -385.3       | 2,744.2      | 2,743.7                 | 0.00                    | 0.00                   | 0.00                  |
| 10,000.0                              | 89.00           | 89.92       | 7,123.6               | -385.1       | 2,844.2      | 2,843.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,100.0                              | 89.00           | 89.92       | 7,125.3               | -385.0       | 2,944.2      | 2,943.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,200.0                              | 89.00           | 89.92       | 7,127.1               | -384.8       | 3,044.1      | 3,043.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,300.0                              | 89.00           | 89.92       | 7,128.8               | -384.7       | 3,144.1      | 3,143.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,400.0                              | 89.00           | 89.92       | 7,130.6               | -384.6       | 3,244.1      | 3,243.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,500.0                              | 89.00           | 89.92       | 7,132.3               | -384.4       | 3,344.1      | 3,343.6                 | 0.00                    | 0.00                   | 0.00                  |
| 10,600.0                              | 89.00           | 89.92       | 7,134.1               | -384.3       | 3,444.1      | 3,443.5                 | 0.00                    | 0.00                   | 0.00                  |
| 10,700.0                              | 89.00           | 89.92       | 7,135.8               | -384.1       | 3,544.1      | 3,543.5                 | 0.00                    | 0.00                   | 0.00                  |
| 10,800.0                              | 89.00           | 89.92       | 7,137.5               | -384.0       | 3,644.1      | 3,643.5                 | 0.00                    | 0.00                   | 0.00                  |
| 10,900.0                              | 89.00           | 89.92       | 7,139.3               | -383.8       | 3,744.0      | 3,743.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,000.0                              | 89.00           | 89.92       | 7,141.0               | -383.7       | 3,844.0      | 3,843.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,100.0                              | 89.00           | 89.92       | 7,142.8               | -383.6       | 3,944.0      | 3,943.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,200.0                              | 89.00           | 89.92       | 7,144.5               | -383.4       | 4,044.0      | 4,043.5                 | 0.00                    | 0.00                   | 0.00                  |
| 11,300.0                              | 89.00           | 89.92       | 7,146.3               | -383.3       | 4,144.0      | 4,143.4                 | 0.00                    | 0.00                   | 0.00                  |

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | 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) |
| 11,400.0                                                   | 89.00           | 89.92       | 7,148.0               | -383.1       | 4,244.0      | 4,243.4                 | 0.00                    | 0.00                   | 0.00                  |
| 11,500.0                                                   | 89.00           | 89.92       | 7,149.8               | -383.0       | 4,344.0      | 4,343.4                 | 0.00                    | 0.00                   | 0.00                  |
| 11,600.0                                                   | 89.00           | 89.92       | 7,151.5               | -382.9       | 4,443.9      | 4,443.4                 | 0.00                    | 0.00                   | 0.00                  |
| 11,700.0                                                   | 89.00           | 89.92       | 7,153.2               | -382.7       | 4,543.9      | 4,543.4                 | 0.00                    | 0.00                   | 0.00                  |
| 11,800.0                                                   | 89.00           | 89.92       | 7,155.0               | -382.6       | 4,643.9      | 4,643.4                 | 0.00                    | 0.00                   | 0.00                  |
| 11,900.0                                                   | 89.00           | 89.92       | 7,156.7               | -382.4       | 4,743.9      | 4,743.4                 | 0.00                    | 0.00                   | 0.00                  |
| 12,000.0                                                   | 89.00           | 89.92       | 7,158.5               | -382.3       | 4,843.9      | 4,843.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,100.0                                                   | 89.00           | 89.92       | 7,160.2               | -382.2       | 4,943.9      | 4,943.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,200.0                                                   | 89.00           | 89.92       | 7,162.0               | -382.0       | 5,043.8      | 5,043.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,300.0                                                   | 89.00           | 89.92       | 7,163.7               | -381.9       | 5,143.8      | 5,143.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,400.0                                                   | 89.00           | 89.92       | 7,165.4               | -381.7       | 5,243.8      | 5,243.3                 | 0.00                    | 0.00                   | 0.00                  |
| 12,454.8                                                   | 89.00           | 89.92       | 7,166.4               | -381.7       | 5,298.6      | 5,298.1                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Start DLS 3.00 TFO -90.01 - Start AC - Big Chief #2</b> |                 |             |                       |              |              |                         |                         |                        |                       |
| 12,500.0                                                   | 89.00           | 88.56       | 7,167.2               | -381.1       | 5,343.8      | 5,343.3                 | 3.00                    | 0.00                   | -3.00                 |
| 12,588.6                                                   | 89.00           | 85.91       | 7,168.7               | -376.8       | 5,432.2      | 5,431.7                 | 3.00                    | 0.00                   | -3.00                 |
| <b>Start 1469.9 hold at 12588.6 MD</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 12,600.0                                                   | 89.00           | 85.91       | 7,168.9               | -376.0       | 5,443.6      | 5,443.1                 | 0.00                    | 0.00                   | 0.00                  |
| 12,700.0                                                   | 89.00           | 85.91       | 7,170.7               | -368.8       | 5,543.4      | 5,542.8                 | 0.00                    | 0.00                   | 0.00                  |
| 12,800.0                                                   | 89.00           | 85.91       | 7,172.4               | -361.7       | 5,643.1      | 5,642.6                 | 0.00                    | 0.00                   | 0.00                  |
| 12,900.0                                                   | 89.00           | 85.91       | 7,174.1               | -354.6       | 5,742.8      | 5,742.3                 | 0.00                    | 0.00                   | 0.00                  |
| 13,000.0                                                   | 89.00           | 85.91       | 7,175.9               | -347.4       | 5,842.6      | 5,842.1                 | 0.00                    | 0.00                   | 0.00                  |
| 13,100.0                                                   | 89.00           | 85.91       | 7,177.6               | -340.3       | 5,942.3      | 5,941.8                 | 0.00                    | 0.00                   | 0.00                  |
| 13,200.0                                                   | 89.00           | 85.91       | 7,179.4               | -333.1       | 6,042.0      | 6,041.5                 | 0.00                    | 0.00                   | 0.00                  |
| 13,300.0                                                   | 89.00           | 85.91       | 7,181.1               | -326.0       | 6,141.7      | 6,141.3                 | 0.00                    | 0.00                   | 0.00                  |
| 13,400.0                                                   | 89.00           | 85.91       | 7,182.8               | -318.9       | 6,241.5      | 6,241.0                 | 0.00                    | 0.00                   | 0.00                  |
| 13,500.0                                                   | 89.00           | 85.91       | 7,184.6               | -311.7       | 6,341.2      | 6,340.8                 | 0.00                    | 0.00                   | 0.00                  |
| 13,600.0                                                   | 89.00           | 85.91       | 7,186.3               | -304.6       | 6,440.9      | 6,440.5                 | 0.00                    | 0.00                   | 0.00                  |
| 13,700.0                                                   | 89.00           | 85.91       | 7,188.1               | -297.4       | 6,540.7      | 6,540.2                 | 0.00                    | 0.00                   | 0.00                  |
| 13,800.0                                                   | 89.00           | 85.91       | 7,189.8               | -290.3       | 6,640.4      | 6,640.0                 | 0.00                    | 0.00                   | 0.00                  |
| 13,900.0                                                   | 89.00           | 85.91       | 7,191.5               | -283.2       | 6,740.1      | 6,739.7                 | 0.00                    | 0.00                   | 0.00                  |
| 14,000.0                                                   | 89.00           | 85.91       | 7,193.3               | -276.0       | 6,839.9      | 6,839.5                 | 0.00                    | 0.00                   | 0.00                  |
| 14,058.5                                                   | 89.00           | 85.91       | 7,194.3               | -271.9       | 6,898.2      | 6,897.8                 | 0.00                    | 0.00                   | 0.00                  |
| <b>Start DLS 2.00 TFO 90.06 - Avoid Big Chief #2</b>       |                 |             |                       |              |              |                         |                         |                        |                       |
| 14,100.0                                                   | 89.00           | 86.74       | 7,195.0               | -269.2       | 6,939.6      | 6,939.2                 | 2.00                    | 0.00                   | 2.00                  |
| 14,200.0                                                   | 89.00           | 88.74       | 7,196.8               | -265.2       | 7,039.5      | 7,039.1                 | 2.00                    | 0.00                   | 2.00                  |
| 14,300.0                                                   | 89.00           | 90.74       | 7,198.5               | -264.8       | 7,139.5      | 7,139.1                 | 2.00                    | 0.00                   | 2.00                  |
| 14,367.8                                                   | 89.00           | 92.09       | 7,199.7               | -266.5       | 7,207.2      | 7,206.9                 | 2.00                    | 0.00                   | 2.00                  |
| <b>Start 2976.0 hold at 14367.8 MD</b>                     |                 |             |                       |              |              |                         |                         |                        |                       |
| 14,400.0                                                   | 89.00           | 92.09       | 7,200.3               | -267.6       | 7,239.4      | 7,239.0                 | 0.00                    | 0.00                   | 0.00                  |
| 14,500.0                                                   | 89.00           | 92.09       | 7,202.0               | -271.3       | 7,339.3      | 7,339.0                 | 0.00                    | 0.00                   | 0.00                  |
| 14,600.0                                                   | 89.00           | 92.09       | 7,203.7               | -274.9       | 7,439.3      | 7,438.9                 | 0.00                    | 0.00                   | 0.00                  |
| 14,700.0                                                   | 89.00           | 92.09       | 7,205.5               | -278.6       | 7,539.2      | 7,538.8                 | 0.00                    | 0.00                   | 0.00                  |
| 14,800.0                                                   | 89.00           | 92.09       | 7,207.2               | -282.2       | 7,639.1      | 7,638.7                 | 0.00                    | 0.00                   | 0.00                  |
| 14,900.0                                                   | 89.00           | 92.09       | 7,209.0               | -285.9       | 7,739.0      | 7,738.6                 | 0.00                    | 0.00                   | 0.00                  |
| 15,000.0                                                   | 89.00           | 92.09       | 7,210.7               | -289.5       | 7,838.9      | 7,838.5                 | 0.00                    | 0.00                   | 0.00                  |
| 15,100.0                                                   | 89.00           | 92.09       | 7,212.4               | -293.2       | 7,938.9      | 7,938.4                 | 0.00                    | 0.00                   | 0.00                  |
| 15,200.0                                                   | 89.00           | 92.09       | 7,214.2               | -296.8       | 8,038.8      | 8,038.3                 | 0.00                    | 0.00                   | 0.00                  |
| 15,300.0                                                   | 89.00           | 92.09       | 7,215.9               | -300.5       | 8,138.7      | 8,138.3                 | 0.00                    | 0.00                   | 0.00                  |
| 15,400.0                                                   | 89.00           | 92.09       | 7,217.7               | -304.2       | 8,238.6      | 8,238.2                 | 0.00                    | 0.00                   | 0.00                  |
| 15,500.0                                                   | 89.00           | 92.09       | 7,219.4               | -307.8       | 8,338.5      | 8,338.1                 | 0.00                    | 0.00                   | 0.00                  |
| 15,600.0                                                   | 89.00           | 92.09       | 7,221.2               | -311.5       | 8,438.4      | 8,438.0                 | 0.00                    | 0.00                   | 0.00                  |
| 15,700.0                                                   | 89.00           | 92.09       | 7,222.9               | -315.1       | 8,538.4      | 8,537.9                 | 0.00                    | 0.00                   | 0.00                  |
| 15,800.0                                                   | 89.00           | 92.09       | 7,224.6               | -318.8       | 8,638.3      | 8,637.8                 | 0.00                    | 0.00                   | 0.00                  |
| 15,900.0                                                   | 89.00           | 92.09       | 7,226.4               | -322.4       | 8,738.2      | 8,737.7                 | 0.00                    | 0.00                   | 0.00                  |

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | 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) |
| 16,000.0                                    | 89.00           | 92.09       | 7,228.1               | -326.1       | 8,838.1      | 8,837.7                 | 0.00                    | 0.00                   | 0.00                  |
| 16,100.0                                    | 89.00           | 92.09       | 7,229.9               | -329.7       | 8,938.0      | 8,937.6                 | 0.00                    | 0.00                   | 0.00                  |
| 16,200.0                                    | 89.00           | 92.09       | 7,231.6               | -333.4       | 9,038.0      | 9,037.5                 | 0.00                    | 0.00                   | 0.00                  |
| 16,300.0                                    | 89.00           | 92.09       | 7,233.3               | -337.0       | 9,137.9      | 9,137.4                 | 0.00                    | 0.00                   | 0.00                  |
| 16,400.0                                    | 89.00           | 92.09       | 7,235.1               | -340.7       | 9,237.8      | 9,237.3                 | 0.00                    | 0.00                   | 0.00                  |
| 16,500.0                                    | 89.00           | 92.09       | 7,236.8               | -344.3       | 9,337.7      | 9,337.2                 | 0.00                    | 0.00                   | 0.00                  |
| 16,600.0                                    | 89.00           | 92.09       | 7,238.6               | -348.0       | 9,437.6      | 9,437.1                 | 0.00                    | 0.00                   | 0.00                  |
| 16,700.0                                    | 89.00           | 92.09       | 7,240.3               | -351.6       | 9,537.5      | 9,537.0                 | 0.00                    | 0.00                   | 0.00                  |
| 16,800.0                                    | 89.00           | 92.09       | 7,242.1               | -355.3       | 9,637.5      | 9,637.0                 | 0.00                    | 0.00                   | 0.00                  |
| 16,900.0                                    | 89.00           | 92.09       | 7,243.8               | -358.9       | 9,737.4      | 9,736.9                 | 0.00                    | 0.00                   | 0.00                  |
| 17,000.0                                    | 89.00           | 92.09       | 7,245.5               | -362.6       | 9,837.3      | 9,836.8                 | 0.00                    | 0.00                   | 0.00                  |
| 17,100.0                                    | 89.00           | 92.09       | 7,247.3               | -366.2       | 9,937.2      | 9,936.7                 | 0.00                    | 0.00                   | 0.00                  |
| 17,200.0                                    | 89.00           | 92.09       | 7,249.0               | -369.9       | 10,037.1     | 10,036.6                | 0.00                    | 0.00                   | 0.00                  |
| 17,300.0                                    | 89.00           | 92.09       | 7,250.8               | -373.5       | 10,137.1     | 10,136.5                | 0.00                    | 0.00                   | 0.00                  |
| 17,343.8                                    | 89.00           | 92.09       | 7,251.5               | -375.1       | 10,180.8     | 10,180.3                | 0.00                    | 0.00                   | 0.00                  |
| TD at 17343.8 - Ace Stern Vegas #114H - BHL |                 |             |                       |              |              |                         |                         |                        |                       |

| Design Targets                                                  |               |              |            |              |              |                 |                |                  |                  |
|-----------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|------------------|------------------|
| Target Name<br>- hit/miss target<br>- Shape                     | Dip Angle (°) | Dip Dir. (°) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude         | Longitude        |
| Ace Stern Vegas #114<br>- plan hits target center<br>- Point    | 0.00          | 0.01         | 6,506.0    | -541.9       | -269.4       | 499,230.00      | 571,874.00     | 32° 22' 20.220 N | 104° 6' 1.917 W  |
| Start AC - Big Chief #:<br>- plan hits target center<br>- Point | 0.00          | 0.00         | 7,166.4    | -381.7       | 5,298.6      | 499,390.21      | 577,441.71     | 32° 22' 21.681 N | 104° 4' 56.991 W |
| Avoid Big Chief #2<br>- plan hits target center<br>- Point      | 0.00          | 0.01         | 7,194.3    | -271.9       | 6,898.2      | 499,500.00      | 579,041.27     | 32° 22' 22.730 N | 104° 4' 38.337 W |
| Ace Stern Vegas #114<br>- plan hits target center<br>- Point    | 0.00          | 0.01         | 7,251.5    | -375.1       | 10,180.8     | 499,396.72      | 582,323.99     | 32° 22' 21.629 N | 104° 4' 0.062 W  |

## Planning Report

|                  |                            |                                     |                           |
|------------------|----------------------------|-------------------------------------|---------------------------|
| <b>Database:</b> | EDM 5000.14 Server         | <b>Local Co-ordinate Reference:</b> | Well Ace Stern Vegas#114H |
| <b>Company:</b>  | Matador Production Company | <b>TVD Reference:</b>               | KB @ 3095.5usft           |
| <b>Project:</b>  | Rustler Breaks             | <b>MD Reference:</b>                | KB @ 3095.5usft           |
| <b>Site:</b>     | Ace Stern Vegas            | <b>North Reference:</b>             | Grid                      |
| <b>Well:</b>     | Ace Stern Vegas #114H      | <b>Survey Calculation Method:</b>   | Minimum Curvature         |
| <b>Wellbore:</b> | Wellbore #1                |                                     |                           |
| <b>Design:</b>   | State Plan #1              |                                     |                           |

## Formations

| Measured Depth (usft) | Vertical Depth (usft) | Name                          | Lithology | Dip (°) | Dip Direction (°) |
|-----------------------|-----------------------|-------------------------------|-----------|---------|-------------------|
| 248.0                 | 248.0                 | Depth (Rustler)               |           | 1.00    | 89.92             |
| 447.0                 | 447.0                 | Depth (Salado)                |           | 1.00    | 89.92             |
| 962.0                 | 962.0                 | Depth (Castile (T))           |           | 1.00    | 89.92             |
| 2,564.0               | 2,556.0               | Depth (G30:CS14-CSB)          |           | 1.00    | 89.92             |
| 2,600.4               | 2,591.9               | Depth (G26: Bell Cyn.)        |           | 1.00    | 89.92             |
| 3,284.3               | 3,269.2               | Depth (G16: Manzanita)        |           | 1.00    | 89.92             |
| 3,392.2               | 3,376.1               | Depth (G13: Cherry Cyn.)      |           | 1.00    | 89.92             |
| 4,629.9               | 4,601.7               | Depth (G7: Brushy Cyn.)       |           | 1.00    | 89.92             |
| 6,032.4               | 5,992.3               | Depth (G4: BSG (CS9))         |           | 1.00    | 89.92             |
| 6,158.4               | 6,118.3               | Depth (G4.1: AVALON-SS)       |           | 1.00    | 89.92             |
| 6,190.4               | 6,150.3               | Depth (G3.3: Avalon SS (B))   |           | 1.00    | 89.92             |
| 6,517.4               | 6,477.3               | Depth (L8.2: U. Avalon Shale) |           | 1.00    | 89.92             |
| 6,600.6               | 6,560.3               | Depth (L6.3: Avalon Carb)     |           | 1.00    | 89.92             |
| 6,680.9               | 6,639.6               | Depth (L6.2: L. Avalon Shale) |           | 1.00    | 89.92             |
| 6,769.8               | 6,724.0               | Depth (L5.3: FBSC)            |           | 1.00    | 89.92             |
| 7,232.4               | 7,039.5               | Depth (L5.1: FBSC)            |           | 1.00    | 89.92             |

## Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                         |
|-----------------------|-----------------------|-------------------|--------------|---------------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                                 |
| 1,200.0               | 1,200.0               | 0.0               | 0.0          | Start Build 1.00                |
| 2,000.0               | 1,997.4               | -49.9             | -24.8        | Start 3680.7 hold at 2000.0 MD  |
| 5,680.7               | 5,642.2               | -508.6            | -252.9       | Start Drop -1.50                |
| 6,214.0               | 6,173.8               | -541.9            | -269.4       | Start 332.2 hold at 6214.0 MD   |
| 6,546.1               | 6,506.0               | -541.9            | -269.4       | Start Build 10.00               |
| 7,436.1               | 7,078.9               | -437.6            | 283.8        | Start DLS 2.00 TFO 90.09        |
| 7,966.0               | 7,088.1               | -388.0            | 810.5        | Start 4488.8 hold at 7966.0 MD  |
| 12,454.8              | 7,166.4               | -381.7            | 5,298.6      | Start DLS 3.00 TFO -90.01       |
| 12,588.6              | 7,168.7               | -376.8            | 5,432.2      | Start 1469.9 hold at 12588.6 MD |
| 14,058.5              | 7,194.3               | -271.9            | 6,898.2      | Start DLS 2.00 TFO 90.06        |
| 14,367.8              | 7,199.7               | -266.5            | 7,207.2      | Start 2976.0 hold at 14367.8 MD |
| 17,343.8              | 7,251.5               | -375.1            | 10,180.8     | TD at 17343.8                   |