

**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 353243

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

|                                                                                                                      |                                             |                               |
|----------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-------------------------------|
| 1. Operator Name and Address<br>Permian Resources Operating, LLC<br>1001 17th Street, Suite 1800<br>Denver, CO 80202 |                                             | 2. OGRID Number<br>372165     |
|                                                                                                                      |                                             | 3. API Number<br>30-025-52197 |
| 4. Property Code<br>334833                                                                                           | 5. Property Name<br>CASA BONITA 8 STATE COM | 6. Well No.<br>123H           |

**7. Surface Location**

|               |              |                 |              |              |                   |               |                   |               |               |
|---------------|--------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|---------------|
| UL - Lot<br>H | Section<br>8 | Township<br>22S | Range<br>35E | Lot Idn<br>H | Feet From<br>2423 | N/S Line<br>N | Feet From<br>1158 | E/W Line<br>E | County<br>Lea |
|---------------|--------------|-----------------|--------------|--------------|-------------------|---------------|-------------------|---------------|---------------|

**8. Proposed Bottom Hole Location**

|               |              |                 |              |              |                  |               |                   |               |               |
|---------------|--------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|
| UL - Lot<br>B | Section<br>5 | Township<br>22S | Range<br>35E | Lot Idn<br>2 | Feet From<br>100 | N/S Line<br>N | Feet From<br>2145 | E/W Line<br>E | County<br>Lea |
|---------------|--------------|-----------------|--------------|--------------|------------------|---------------|-------------------|---------------|---------------|

**9. Pool Information**

|                                  |       |
|----------------------------------|-------|
| WC-025 G-07 S223505N;BONE SPRING | 98136 |
|----------------------------------|-------|

**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>3585 |
| 16. Multiple<br>N         | 17. Proposed Depth<br>17872 | 18. Formation<br>2nd Bone Spring Sand  | 19. Contractor          | 20. Spud Date<br>3/1/2024          |
| Depth to Ground water     |                             | Distance from nearest fresh water well |                         | Distance to nearest surface water  |

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| Surf | 17.5      | 13.375      | 54.5             | 1732          | 1310            | 0             |
| Int1 | 12.25     | 9.625       | 40               | 5625          | 1480            | 0             |
| Prod | 7.875     | 5.5         | 20               | 17872         | 1070            | 9756          |
| Prod | 8.75      | 5.5         | 20               | 10506         | 670             | 5125          |

**Casing/Cement Program: Additional Comments**

|                                                                                                                                                                       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drilling 8.75 hole size for the curve and 7.875 hole size for the lateral for the 5.5 production casing string. Will use DV Tool on Intermediate cement, set at 3825. |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**22. Proposed Blowout Prevention Program**

| Type | Working Pressure | Test Pressure | Manufacturer |
|------|------------------|---------------|--------------|
| 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 checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. | <b>OIL CONSERVATION DIVISION</b> |                                 |
| Signature:                                                                                                                                                                                                                                                                                         |                                  |                                 |
| Printed Name: Electronically filed by Kanicia Schlichting                                                                                                                                                                                                                                          | Approved By: Paul F Kautz        |                                 |
| Title: Regulatory Specialist                                                                                                                                                                                                                                                                       | Title: Geologist                 |                                 |
| Email Address: Kanicia.Schlichting@permianres.com                                                                                                                                                                                                                                                  | Approved Date: 11/14/2023        | Expiration Date: 11/14/2025     |
| Date: 11/2/2023                                                                                                                                                                                                                                                                                    | Phone: 432-232-2875              | Conditions of Approval Attached |

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Phone: (505) 476-3460 Fax (505) 476-3462

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          | <sup>2</sup> Pool Code<br>98136                                | <sup>3</sup> Pool Name<br>WC-025 G-07 S223505N; Bone Spring |
| <sup>4</sup> Property Code       | <sup>5</sup> Property Name<br>CASA BONITA 8 STATE COM          | <sup>6</sup> Well Number<br>#123H                           |
| <sup>7</sup> OGRID No.<br>372165 | <sup>8</sup> Operator Name<br>PERMIAN RESOURCES OPERATING, LLC | <sup>9</sup> Elevation<br>3,585'                            |

<sup>10</sup> Surface Location

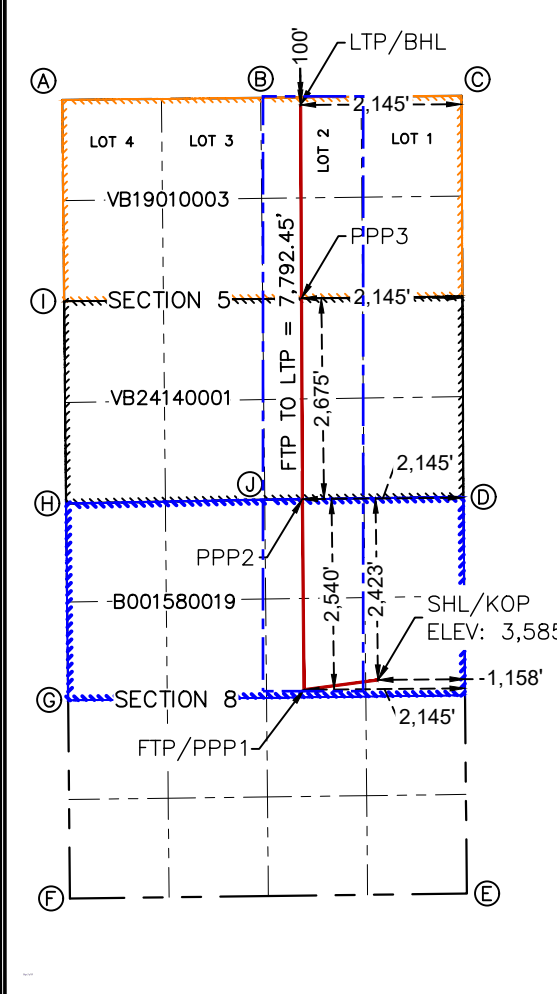
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| H             | 8       | 22 S     | 35 E  |         | 2,423'        | NORTH            | 1,158'        | EAST           | LEA    |

<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| L2            | 5       | 22 S     | 35 E  |         | 100'          | NORTH            | 2,145'        | EAST           | LEA    |

|                                         |                               |                                  |                         |
|-----------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>242.11 | <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>16</p>  | <p><b>SURFACE HOLE LOCATION &amp; KICK-OFF POINT</b><br/>2.423' FNL &amp; 1.158' FEL<br/>NM EAST-NAD 83<br/>NORTH: 513.047.06'<br/>EAST: 834.057.80'<br/>LAT: 32.40686418<br/>LONG: -103.38484416<br/>NM EAST-NAD 27<br/>NORTH: 512.986.10'<br/>EAST: 792.874.17'<br/>LAT: 32.40673949<br/>LONG: -103.38436738</p> <p><b>PENETRATION POINT 2</b><br/>0' FSL &amp; 2.145' FEL<br/>NM EAST-NAD 83<br/>NORTH: 515.456.00'<br/>EAST: 833.049.48'<br/>LAT: 32.41350960<br/>LONG: -103.38804196<br/>NM EAST-NAD 27<br/>NORTH: 515.394.99'<br/>EAST: 791.865.92'<br/>LAT: 32.41338496<br/>LONG: -103.38756483</p> <p><b>LAST TAKE POINT &amp; BOTTOM HOLE LOCATION</b><br/>100' FNL &amp; 2.145' FEL<br/>NM EAST-NAD 83<br/>NORTH: 520.708.37'<br/>EAST: 833.026.33'<br/>LAT: 32.42794601<br/>LONG: -103.38796640<br/>NM EAST-NAD 27<br/>NORTH: 520.647.21'<br/>EAST: 791.842.88'<br/>LAT: 32.42782144<br/>LONG: -103.38748887</p> | <p><b>FIRST TAKE POINT &amp; PENETRATION POINT 1</b><br/>2.540' FNL &amp; 2.145' FEL<br/>NM EAST-NAD 83<br/>NORTH: 512.916.07'<br/>EAST: 833.071.91'<br/>LAT: 32.40652818<br/>LONG: -103.38804207<br/>NM EAST-NAD 27<br/>NORTH: 512.855.13'<br/>EAST: 791.888.30'<br/>LAT: 32.40640351<br/>LONG: -103.38756513</p> <p><b>PENETRATION POINT 3</b><br/>2.675' FSL &amp; 2.145' FEL<br/>NM EAST-NAD 83<br/>NORTH: 518.131.06'<br/>EAST: 833.037.69'<br/>LAT: 32.42086215<br/>LONG: -103.38800349<br/>NM EAST-NAD 27<br/>NORTH: 518.069.97'<br/>EAST: 791.854.19'<br/>LAT: 32.42073754<br/>LONG: -103.38752615</p> | <p><b>17 OPERATOR CERTIFICATION</b><br/>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> 10/31/23<br/>Signature Date<br/>Kanicia Schlichting 10/31/23<br/>Printed Name Date<br/>kanicia.schlichting@permianres.com 10/31/23<br/>Email Address Date</p> |
|                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | <p><b>18 SURVEYOR CERTIFICATION</b><br/>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>Date: 9/12/2023</p> <p><br/>MARK J. MURRAY P.L.S. NO. 12177</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 353243

**PERMIT CONDITIONS OF APPROVAL**

|                                                                                                                             |                                        |
|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| Operator Name and Address:<br>Permian Resources Operating, LLC [372165]<br>1001 17th Street, Suite 1800<br>Denver, CO 80202 | API Number:<br>30-025-52197            |
|                                                                                                                             | Well:<br>CASA BONITA 8 STATE COM #123H |

| OCD<br>Reviewer | Condition                                                                                                                                                                                                                                                            |
|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| pkautz          | Notify OCD 24 hours prior to casing & cement                                                                                                                                                                                                                         |
| pkautz          | Will require a File As Drilled C-102 and a Directional Survey with the C-104                                                                                                                                                                                         |
| pkautz          | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string |
| pkautz          | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system                  |
| pkautz          | Cement is required to circulate on both surface and intermediate1 strings of casing                                                                                                                                                                                  |
| pkautz          | If cement does not circulate on any string , a CBL is required for that string of casing.                                                                                                                                                                            |
| pkautz          | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud                                                                                                                                                                   |

**State of New Mexico**  
**Energy, Minerals and Natural Resources Department**

Oil Conservation Division  
 1220 South St. Francis Dr  
 Santa Fe, NM 87505

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description Effective May 25, 2021

**I. Operator:** Permian Resources Operating, LLC      **OGRID:** 372165      **Date:** 10/12/2023

**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 | Anticipated Gas | Anticipated Prod Water |
|----------------------------------|-----|----------------|-----------------------|-----------------|-----------------|------------------------|
| Casa Bonita 8 State Com 113H     |     | H-8-T22S-R35E  | 2422' FNL – 1191' FEL | 1600 BOPD       | 1900 MCFD       | 11600 BWPD             |
| Casa Bonita 8 State Com 114H     |     | H-8-T22S-R35E  | 2423' FNL – 1026' FEL | 1600 BOPD       | 1900 MCFD       | 11600 BWPD             |
| Casa Bonita 8 State Com 123H     |     | H-8-T22S-R35E  | 2423' FNL – 1158' FEL | 2000 BOPD       | 2400 MCFD       | 12500 BWPD             |
| Casa Bonita 8 State Com 124H     |     | H-8-T22S-R35E  | 2423' FNL – 1059' FEL | 2000 BOPD       | 2400 MCFD       | 12500 BWPD             |
| Casa Bonita 8 State Com 133H     |     | H-8-T22S-R35E  | 2423' FNL – 1125' FEL | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |
| Casa Bonita 8 State Com 134H     |     | H-8-T22S-R35E  | 2423' FNL – 1092' FEL | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |
| Casa Bonita 32 State Com 111H    |     | N-32-T21S-R35E | 316' FSL – 1393' FWL  | 1600 BOPD       | 1900 MCFD       | 11600 BWPD             |
| Casa Bonita 32 State Com 112H    |     | N-32-T21S-R35E | 316' FSL – 1426' FWL  | 1600 BOPD       | 1900 MCFD       | 11600 BWPD             |
| Casa Bonita 32 State Com 121H    |     | N-32-T21S-R35E | 316' FSL – 1360' FWL  | 2000 BOPD       | 2400 MCFD       | 12500 BWPD             |
| Casa Bonita 32 State Com 131H    |     | N-32-T21S-R35E | 316' FSL – 1459' FWL  | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |
| Casa Bonita 32 State Com 132H    |     | N-32-T21S-R35E | 316' FSL – 1492' FWL  | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |
| Butters Stotch 8 State Com 113H  |     | I-8-T22S-R35E  | 2452' FSL – 1190' FEL | 1600 BOPD       | 1900 MCFD       | 11600 BWPD             |
| Butters Stotch 8 State Com 114H  |     | I-8-T22S-R35E  | 2452' FSL – 1025' FEL | 1600 BOPD       | 1900 MCFD       | 11600 BWPD             |
| Butters Stotch 8 State Com 123H  |     | I-8-T22S-R35E  | 2452' FSL – 1157' FEL | 2000 BOPD       | 2400 MCFD       | 12500 BWPD             |
| Butters Stotch 8 State Com 124H  |     | I-8-T22S-R35E  | 2452' FSL – 1058' FEL | 2000 BOPD       | 2400 MCFD       | 12500 BWPD             |
| Butters Stotch 8 State Com 133H  |     | I-8-T22S-R35E  | 2452' FSL – 1124' FEL | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |
| Butters Stotch 8 State Com 134H  |     | I-8-T22S-R35E  | 2452' FSL – 1091' FEL | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |
| Butters Stotch 17 State Com 111H |     | N-17-T22S-R35E | 209' FSL – 1983' FWL  | 1600 BOPD       | 1900 MCFD       | 11600 BWPD             |
| Butters Stotch 17 State Com 122H |     | N-17-T22S-R35E | 210' FSL – 1950' FWL  | 2000 BOPD       | 2400 MCFD       | 12500 BWPD             |
| Butters Stotch 17 State Com 131H |     | N-17-T22S-R35E | 209' FSL – 2016' FWL  | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |
| Butters Stotch 17 State Com 132H |     | N-17-T22S-R35E | 209' FSL – 2049' FWL  | 1400 BOPD       | 1650 MCFD       | 7800 BWPD              |

**IV. Central Delivery Point Name:** Butters Stotch/Casa Bonita CTB [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 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 |
|----------------------------------|-----|-----------|-----------------|------------------------------|------------------------|-----------------------|
| Casa Bonita 8 State Com 113H     |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Casa Bonita 8 State Com 114H     |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Casa Bonita 8 State Com 123H     |     | 3/11/2024 | 3/24/2024       | 5/17/2024                    | 6/12/2024              | 6/12/2024             |
| Casa Bonita 8 State Com 124H     |     | 3/22/2024 | 4/6/2024        | 5/23/2024                    | 6/12/2024              | 6/12/2024             |
| Casa Bonita 8 State Com 133H     |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Casa Bonita 8 State Com 134H     |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Casa Bonita 32 State Com 111H    |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Casa Bonita 32 State Com 112H    |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Casa Bonita 32 State Com 121H    |     | 2/26/2024 | 3/11/2024       | 5/17/2024                    | 6/2/2024               | 6/2/2024              |
| Casa Bonita 32 State Com 131H    |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Casa Bonita 32 State Com 132H    |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Butters Stotch 8 State Com 113H  |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Butters Stotch 8 State Com 114H  |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Butters Stotch 8 State Com 123H  |     | 3/24/2024 | 4/7/2024        | 5/17/2024                    | 6/2/2024               | 6/2/2024              |
| Butters Stotch 8 State Com 124H  |     | 3/3/2024  | 3/19/2024       | 5/14/2024                    | 6/2/2024               | 6/2/2024              |
| Butters Stotch 8 State Com 133H  |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Butters Stotch 8 State Com 134H  |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Butters Stotch 17 State Com 111H |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Butters Stotch 17 State Com 122H |     | 2/13/2024 | 2/26/2024       | 5/17/2024                    | 6/2/2024               | 6/2/2024              |
| Butters Stotch 17 State Com 131H |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |
| Butters Stotch 17 State Com 132H |     | TBD       | TBD             | TBD                          | TBD                    | TBD                   |

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will seize separation equipment to optimize gas capture.

**VII. Operations 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 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, not 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 and update for each Natural Gas Management Plan until the Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
  - (c) OCD may deny or conditionally approve and 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, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:



Printed Name: Tinlee Via

Title: Contract Drilling Engineer

E-mail Address: tinlee.via@permianres.com

Date: 10/24/2023

Phone: 512-755-6018

**OIL CONSERVATION DIVISION****(Only applicable when submitted as a standalone form)**

Approved By:

Title:

Approval Date:

Conditions of Approval:



## Permian Resources Operating, LLC (372165)

**Natural Gas Management Plan Descriptions****VI. Separation Equipment:**

Permian Resources Operating, LLC (Permian) utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations. Our goal is to maintain 5 minutes of retention time in the test vessel and 20 minutes in the heater treater at peak production rates. The gas produced is routed from the separator to the gas sales line.

**VII. Operational Practices:***Drilling*

During Permian's drilling operations it is uncommon for venting or flaring to occur. If flaring is needed due to safety concerns, gas will be routed to a flare and volumes will be estimated.

*Flowback*

During completion/recompletion flowback operations, after separation flowback begins and as soon as it is technically feasible, Permian routes gas through a permanent separator and the controlled facility where the gas is either sold or flared through a high-pressure flare if needed.

*Production*

Per 19.15.27.8.D, Permian's facilities are designed to minimize waste. Our produced gas will only be vented or flared in an emergency or malfunction situation, except as allowed for normal operations noted in 19.15.27.8.D(2) & (4). All gas that is flared is metered. All gas that may be vented will be estimated.

*Performance Standards*

Permian utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations.

All of Permian's permanent storage tanks associated with production operations which are routed to a flare or control device are equipped with an automatic gauging system.

All of Permian's flare stacks, both currently installed and for future installation, are:

- 1) Appropriately sized and designed to ensure proper combustion efficiency.
- 2) Equipped with an automatic ignitor or continuous pilot.
- 3) Anchored and located at least 100 feet from the well and storage tanks.

Permian's field operations and HSE teams have implemented an AVO inspection schedule that adheres to the requirements of 19.15.27.8.E(5).

All of our operations and facilities are designed to minimize waste. We routinely employ the following methods and practices:

- Closed-loop systems
- Enclosed and properly sized tanks



## Permian Resources Operating, LLC (372165)

- Vapor recovery units to maximize recovery of low-pressure gas streams and potential unauthorized emissions
- Low-emitting or electric engines whenever practical
- Combustors and flare stacks in the event of a malfunction or emergency
- Routine facility inspections to identify leaking components, functioning control devices, such as flares and combustors, and repair / replacement of malfunctioning components where applicable

*Measurement or estimation*

Permian measures or estimates the volumes of natural gas vented, flared and/or beneficially used for all of our drilling, completing and producing wells. We utilize accepted industry standards and methodology which can be independently verified. Annual GOR testing is completed on our wells and will be submitted as required by the OCD. None of our equipment is designed to allow diversion around metering elements except during inspection, maintenance and repair operations.

**VIII. Best Management Practices:**

Permian Resources utilizes the following BMPs to minimize venting during active and planned maintenance activities:

- Use a closed-loop process wherever possible during planned maintenance activities, such as blowdowns, liquid removal, and work over operations.
- Employ low-emitting or electric engines for equipment, such as compressors
- Adhere to a strict preventative maintenance program which includes routine facility inspections, identification of component malfunctions, and repairing or replacing components such as hatches, seals, valves, etc. where applicable
- Utilize vapor recovery units (VRU's) to maximize recovery of volumes of low-pressure gas streams and potential unauthorized emissions
- Route low pressure gas and emissions streams to a combustion device to prevent venting where necessary

## **Enhanced Natural Gas Management Plan**

### **Operator's Plan to Manage Production in Response to Increased Line Pressure**

Permian Resources Operating, LLC (Permian) anticipates that its existing wells connected to the same portion of the natural gas gathering system will continue to meet anticipated increases in line pressure caused by the new wells. Permian will actively monitor line pressure throughout the field and will make necessary adjustments to existing production separators' pressures to send gas to sales. Permian also plans to implement automated alarms on all flare meters to alert of flaring events as they occur. The alarms will send notifications to field operations and engineering staff via text message and email at every occurrence of flaring. In addition, Permian plans to implement automated alarms on all flare meters to alert of any continuous flaring event that has continued for at least 4 hours. The alarms will send notifications to field operations and engineering management. Permian personnel will promptly respond to these alarms, communicate with midstream partners, and take the appropriate action to reduce flaring caused by high line pressure from new well production.

# **NEW MEXICO**

**(SP) LEA**

**CASA BONITA PROJECT**

**CASA BONITA 8 ST COM #123H**

**OWB**

**Plan: PWP0**

## **Survey Report - Geographic**

**17 October, 2023**

## Permian Resources

### Survey Report - Geographic

|                  |                            |                                     |                                 |
|------------------|----------------------------|-------------------------------------|---------------------------------|
| <b>Company:</b>  | NEW MEXICO                 | <b>Local Co-ordinate Reference:</b> | Well CASA BONITA 8 ST COM #123H |
| <b>Project:</b>  | (SP) LEA                   | <b>TVD Reference:</b>               | KB @ 3615.0usft                 |
| <b>Site:</b>     | CASA BONITA PROJECT        | <b>MD Reference:</b>                | KB @ 3615.0usft                 |
| <b>Well:</b>     | CASA BONITA 8 ST COM #123H | <b>North Reference:</b>             | Grid                            |
| <b>Wellbore:</b> | OWB                        | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Design:</b>   | PWP0                       | <b>Database:</b>                    | Compass                         |

|                    |                           |                      |                |
|--------------------|---------------------------|----------------------|----------------|
| <b>Project</b>     | (SP) LEA                  |                      |                |
| <b>Map System:</b> | US State Plane 1983       | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | North American Datum 1983 |                      |                |
| <b>Map Zone:</b>   | New Mexico Eastern Zone   |                      |                |

| Site                  |          | CASA BONITA PROJECT |                 |                   |                  |
|-----------------------|----------|---------------------|-----------------|-------------------|------------------|
| Site Position:        |          | Northing:           | 513,047.06 usft | Latitude:         | 32° 24' 24.711 N |
| From:                 | Map      | Easting:            | 834,057.80 usft | Longitude:        | 103° 23' 5.439 W |
| Position Uncertainty: | 0.0 usft | Slot Radius:        | 13-3/16 "       | Grid Convergence: | 0.51 °           |

|                      |                            |          |                     |                 |               |                  |
|----------------------|----------------------------|----------|---------------------|-----------------|---------------|------------------|
| Well                 | CASA BONITA 8 ST COM #123H |          |                     |                 |               |                  |
| Well Position        | +N/-S                      | 0.0 usft | Northing:           | 513,047.06 usft | Latitude:     | 32° 24' 24.711 N |
|                      | +E/-W                      | 0.0 usft | Easting:            | 834,057.80 usft | Longitude:    | 103° 23' 5.439 W |
| Position Uncertainty |                            | 0.0 usft | Wellhead Elevation: | usft            | Ground Level: | 3,585.0 usft     |

|                  |                   |                    |                        |                      |                            |
|------------------|-------------------|--------------------|------------------------|----------------------|----------------------------|
| <b>Wellbore</b>  | OWB               |                    |                        |                      |                            |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination (°)</b> | <b>Dip Angle (°)</b> | <b>Field Strength (nT)</b> |
|                  | IGRF200510        | 12/31/2009         | 7.68                   | 60.44                | 48,923.28864879            |

|                          |                                |                     |                      |                      |  |
|--------------------------|--------------------------------|---------------------|----------------------|----------------------|--|
| <b>Design</b>            | PWP0                           |                     |                      |                      |  |
| <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                  | 352.33               |  |

|                            |                  |                          |                  |                           |  |
|----------------------------|------------------|--------------------------|------------------|---------------------------|--|
| <b>Survey Tool Program</b> | <b>Date</b>      | 10/17/2023               |                  |                           |  |
| <b>From (usft)</b>         | <b>To (usft)</b> | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b>        |  |
| 0.0                        | 17,871.6         | PWP0 (OWB)               | MWD              | OWSG_Rev2_ MWD - Standard |  |

|                              |                        |                    |                              |                     |                     |                            |                           |                  |                  |
|------------------------------|------------------------|--------------------|------------------------------|---------------------|---------------------|----------------------------|---------------------------|------------------|------------------|
| <b>Planned Survey</b>        |                        |                    |                              |                     |                     |                            |                           |                  |                  |
| <b>Measured Depth (usft)</b> | <b>Inclination (°)</b> | <b>Azimuth (°)</b> | <b>Vertical Depth (usft)</b> | <b>+N/-S (usft)</b> | <b>+E/-W (usft)</b> | <b>Map Northing (usft)</b> | <b>Map Easting (usft)</b> | <b>Latitude</b>  | <b>Longitude</b> |
| 0.0                          | 0.00                   | 0.00               | 0.0                          | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 100.0                        | 0.00                   | 0.00               | 100.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 200.0                        | 0.00                   | 0.00               | 200.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 300.0                        | 0.00                   | 0.00               | 300.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 400.0                        | 0.00                   | 0.00               | 400.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 500.0                        | 0.00                   | 0.00               | 500.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 600.0                        | 0.00                   | 0.00               | 600.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 700.0                        | 0.00                   | 0.00               | 700.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 800.0                        | 0.00                   | 0.00               | 800.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 900.0                        | 0.00                   | 0.00               | 900.0                        | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 1,000.0                      | 0.00                   | 0.00               | 1,000.0                      | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |
| 1,100.0                      | 0.00                   | 0.00               | 1,100.0                      | 0.0                 | 0.0                 | 513,047.06                 | 834,057.80                | 32° 24' 24.711 N | 103° 23' 5.439 W |

## Permian Resources

### Survey Report - Geographic

|                  |                            |                                     |                                 |
|------------------|----------------------------|-------------------------------------|---------------------------------|
| <b>Company:</b>  | NEW MEXICO                 | <b>Local Co-ordinate Reference:</b> | Well CASA BONITA 8 ST COM #123H |
| <b>Project:</b>  | (SP) LEA                   | <b>TVD Reference:</b>               | KB @ 3615.0usft                 |
| <b>Site:</b>     | CASA BONITA PROJECT        | <b>MD Reference:</b>                | KB @ 3615.0usft                 |
| <b>Well:</b>     | CASA BONITA 8 ST COM #123H | <b>North Reference:</b>             | Grid                            |
| <b>Wellbore:</b> | OWB                        | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Design:</b>   | PWPO                       | <b>Database:</b>                    | Compass                         |

#### Planned Survey

| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude         | Longitude         |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|------------------|-------------------|
| 1,200.0                     | 0.00               | 0.00           | 1,200.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 1,300.0                     | 0.00               | 0.00           | 1,300.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 1,400.0                     | 0.00               | 0.00           | 1,400.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 1,500.0                     | 0.00               | 0.00           | 1,500.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 1,600.0                     | 0.00               | 0.00           | 1,600.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 1,700.0                     | 0.00               | 0.00           | 1,700.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 1,707.0                     | 0.00               | 0.00           | 1,707.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| <b>RUSTLER</b>              |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 1,800.0                     | 0.00               | 0.00           | 1,800.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 1,900.0                     | 0.00               | 0.00           | 1,900.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 2,000.0                     | 0.00               | 0.00           | 2,000.0                     | 0.0             | 0.0             | 513,047.06                | 834,057.80               | 32° 24' 24.711 N | 103° 23' 5.439 W  |
| 2,100.0                     | 2.00               | 259.60         | 2,100.0                     | -0.3            | -1.7            | 513,046.75                | 834,056.08               | 32° 24' 24.708 N | 103° 23' 5.459 W  |
| 2,200.0                     | 4.00               | 259.60         | 2,199.8                     | -1.3            | -6.9            | 513,045.80                | 834,050.93               | 32° 24' 24.699 N | 103° 23' 5.519 W  |
| 2,216.2                     | 4.32               | 259.60         | 2,216.0                     | -1.5            | -8.0            | 513,045.59                | 834,049.78               | 32° 24' 24.697 N | 103° 23' 5.533 W  |
| <b>SALADO</b>               |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 2,300.0                     | 6.00               | 259.60         | 2,299.5                     | -2.8            | -15.4           | 513,044.23                | 834,042.36               | 32° 24' 24.684 N | 103° 23' 5.619 W  |
| 2,400.0                     | 8.00               | 259.60         | 2,398.7                     | -5.0            | -27.4           | 513,042.03                | 834,030.38               | 32° 24' 24.664 N | 103° 23' 5.759 W  |
| 2,500.0                     | 10.00              | 259.60         | 2,497.5                     | -7.9            | -42.8           | 513,039.20                | 834,014.99               | 32° 24' 24.637 N | 103° 23' 5.939 W  |
| 2,600.0                     | 10.00              | 259.60         | 2,595.9                     | -11.0           | -59.9           | 513,036.07                | 833,997.91               | 32° 24' 24.608 N | 103° 23' 6.139 W  |
| 2,700.0                     | 10.00              | 259.60         | 2,694.4                     | -14.1           | -77.0           | 513,032.93                | 833,980.83               | 32° 24' 24.578 N | 103° 23' 6.338 W  |
| 2,800.0                     | 10.00              | 259.60         | 2,792.9                     | -17.3           | -94.0           | 513,029.80                | 833,963.75               | 32° 24' 24.549 N | 103° 23' 6.538 W  |
| 2,900.0                     | 10.00              | 259.60         | 2,891.4                     | -20.4           | -111.1          | 513,026.66                | 833,946.67               | 32° 24' 24.519 N | 103° 23' 6.737 W  |
| 3,000.0                     | 10.00              | 259.60         | 2,989.9                     | -23.5           | -128.2          | 513,023.52                | 833,929.59               | 32° 24' 24.489 N | 103° 23' 6.937 W  |
| 3,100.0                     | 10.00              | 259.60         | 3,088.3                     | -26.7           | -145.3          | 513,020.39                | 833,912.52               | 32° 24' 24.460 N | 103° 23' 7.136 W  |
| 3,200.0                     | 10.00              | 259.60         | 3,186.8                     | -29.8           | -162.4          | 513,017.25                | 833,895.44               | 32° 24' 24.430 N | 103° 23' 7.336 W  |
| 3,300.0                     | 10.00              | 259.60         | 3,285.3                     | -32.9           | -179.4          | 513,014.12                | 833,878.36               | 32° 24' 24.401 N | 103° 23' 7.535 W  |
| 3,400.0                     | 10.00              | 259.60         | 3,383.8                     | -36.1           | -196.5          | 513,010.98                | 833,861.28               | 32° 24' 24.371 N | 103° 23' 7.735 W  |
| 3,500.0                     | 10.00              | 259.60         | 3,482.3                     | -39.2           | -213.6          | 513,007.85                | 833,844.20               | 32° 24' 24.342 N | 103° 23' 7.934 W  |
| 3,600.0                     | 10.00              | 259.60         | 3,580.8                     | -42.4           | -230.7          | 513,004.71                | 833,827.12               | 32° 24' 24.312 N | 103° 23' 8.134 W  |
| 3,700.0                     | 10.00              | 259.60         | 3,679.2                     | -45.5           | -247.8          | 513,001.58                | 833,810.04               | 32° 24' 24.283 N | 103° 23' 8.333 W  |
| 3,800.0                     | 10.00              | 259.60         | 3,777.7                     | -48.6           | -264.8          | 512,998.44                | 833,792.96               | 32° 24' 24.253 N | 103° 23' 8.533 W  |
| 3,900.0                     | 10.00              | 259.60         | 3,876.2                     | -51.8           | -281.9          | 512,995.30                | 833,775.88               | 32° 24' 24.224 N | 103° 23' 8.732 W  |
| 4,000.0                     | 10.00              | 259.60         | 3,974.7                     | -54.9           | -299.0          | 512,992.17                | 833,758.80               | 32° 24' 24.194 N | 103° 23' 8.932 W  |
| 4,100.0                     | 10.00              | 259.60         | 4,073.2                     | -58.0           | -316.1          | 512,989.03                | 833,741.72               | 32° 24' 24.165 N | 103° 23' 9.132 W  |
| 4,200.0                     | 10.00              | 259.60         | 4,171.6                     | -61.2           | -333.2          | 512,985.90                | 833,724.64               | 32° 24' 24.135 N | 103° 23' 9.331 W  |
| 4,232.9                     | 10.00              | 259.60         | 4,204.0                     | -62.2           | -338.8          | 512,984.87                | 833,719.03               | 32° 24' 24.125 N | 103° 23' 9.397 W  |
| <b>CAPITAN</b>              |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 4,300.0                     | 10.00              | 259.60         | 4,270.1                     | -64.3           | -350.2          | 512,982.76                | 833,707.56               | 32° 24' 24.106 N | 103° 23' 9.531 W  |
| 4,400.0                     | 10.00              | 259.60         | 4,368.6                     | -67.4           | -367.3          | 512,979.63                | 833,690.48               | 32° 24' 24.076 N | 103° 23' 9.730 W  |
| 4,500.0                     | 10.00              | 259.60         | 4,467.1                     | -70.6           | -384.4          | 512,976.49                | 833,673.40               | 32° 24' 24.047 N | 103° 23' 9.930 W  |
| 4,600.0                     | 10.00              | 259.60         | 4,565.6                     | -73.7           | -401.5          | 512,973.35                | 833,656.32               | 32° 24' 24.017 N | 103° 23' 10.129 W |
| 4,700.0                     | 10.00              | 259.60         | 4,664.0                     | -76.8           | -418.6          | 512,970.22                | 833,639.25               | 32° 24' 23.988 N | 103° 23' 10.329 W |
| 4,800.0                     | 10.00              | 259.60         | 4,762.5                     | -80.0           | -435.6          | 512,967.08                | 833,622.17               | 32° 24' 23.958 N | 103° 23' 10.528 W |
| 4,900.0                     | 10.00              | 259.60         | 4,861.0                     | -83.1           | -452.7          | 512,963.95                | 833,605.09               | 32° 24' 23.928 N | 103° 23' 10.728 W |
| 5,000.0                     | 10.00              | 259.60         | 4,959.5                     | -86.2           | -469.8          | 512,960.81                | 833,588.01               | 32° 24' 23.899 N | 103° 23' 10.927 W |
| 5,100.0                     | 10.00              | 259.60         | 5,058.0                     | -89.4           | -486.9          | 512,957.68                | 833,570.93               | 32° 24' 23.869 N | 103° 23' 11.127 W |
| 5,200.0                     | 10.00              | 259.60         | 5,156.4                     | -92.5           | -504.0          | 512,954.54                | 833,553.85               | 32° 24' 23.840 N | 103° 23' 11.326 W |
| 5,300.0                     | 10.00              | 259.60         | 5,254.9                     | -95.7           | -521.0          | 512,951.41                | 833,536.77               | 32° 24' 23.810 N | 103° 23' 11.526 W |
| 5,400.0                     | 10.00              | 259.60         | 5,353.4                     | -98.8           | -538.1          | 512,948.27                | 833,519.69               | 32° 24' 23.781 N | 103° 23' 11.725 W |
| 5,500.0                     | 10.00              | 259.60         | 5,451.9                     | -101.9          | -555.2          | 512,945.13                | 833,502.61               | 32° 24' 23.751 N | 103° 23' 11.925 W |
| 5,600.0                     | 10.00              | 259.60         | 5,550.4                     | -105.1          | -572.3          | 512,942.00                | 833,485.53               | 32° 24' 23.722 N | 103° 23' 12.124 W |
| 5,700.0                     | 10.00              | 259.60         | 5,648.9                     | -108.2          | -589.3          | 512,938.86                | 833,468.45               | 32° 24' 23.692 N | 103° 23' 12.324 W |
| 5,726.6                     | 10.00              | 259.60         | 5,675.0                     | -109.0          | -593.9          | 512,938.03                | 833,463.92               | 32° 24' 23.684 N | 103° 23' 12.377 W |
| <b>CHERRY CANYON</b>        |                    |                |                             |                 |                 |                           |                          |                  |                   |

## Permian Resources

### Survey Report - Geographic

|                  |                            |                                     |                                 |
|------------------|----------------------------|-------------------------------------|---------------------------------|
| <b>Company:</b>  | NEW MEXICO                 | <b>Local Co-ordinate Reference:</b> | Well CASA BONITA 8 ST COM #123H |
| <b>Project:</b>  | (SP) LEA                   | <b>TVD Reference:</b>               | KB @ 3615.0usft                 |
| <b>Site:</b>     | CASA BONITA PROJECT        | <b>MD Reference:</b>                | KB @ 3615.0usft                 |
| <b>Well:</b>     | CASA BONITA 8 ST COM #123H | <b>North Reference:</b>             | Grid                            |
| <b>Wellbore:</b> | OWB                        | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Design:</b>   | PWPO                       | <b>Database:</b>                    | Compass                         |

#### Planned Survey

| Measured<br>Depth<br>(usft)  | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude         | Longitude         |
|------------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|------------------|-------------------|
| 5,800.0                      | 10.00              | 259.60         | 5,747.3                     | -111.3          | -606.4          | 512,935.73                | 833,451.37               | 32° 24' 23.663 N | 103° 23' 12.524 W |
| 5,900.0                      | 10.00              | 259.60         | 5,845.8                     | -114.5          | -623.5          | 512,932.59                | 833,434.29               | 32° 24' 23.633 N | 103° 23' 12.723 W |
| 6,000.0                      | 10.00              | 259.60         | 5,944.3                     | -117.6          | -640.6          | 512,929.46                | 833,417.21               | 32° 24' 23.604 N | 103° 23' 12.923 W |
| 6,041.3                      | 10.00              | 259.60         | 5,985.0                     | -118.9          | -647.6          | 512,928.16                | 833,410.15               | 32° 24' 23.591 N | 103° 23' 13.005 W |
| <b>MANZANITA LIME</b>        |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 6,100.0                      | 10.00              | 259.60         | 6,042.8                     | -120.7          | -657.7          | 512,926.32                | 833,400.13               | 32° 24' 23.574 N | 103° 23' 13.122 W |
| 6,200.0                      | 10.00              | 259.60         | 6,141.3                     | -123.9          | -674.7          | 512,923.18                | 833,383.05               | 32° 24' 23.545 N | 103° 23' 13.322 W |
| 6,300.0                      | 10.00              | 259.60         | 6,239.7                     | -127.0          | -691.8          | 512,920.05                | 833,365.98               | 32° 24' 23.515 N | 103° 23' 13.521 W |
| 6,400.0                      | 10.00              | 259.60         | 6,338.2                     | -130.1          | -708.9          | 512,916.91                | 833,348.90               | 32° 24' 23.486 N | 103° 23' 13.721 W |
| 6,500.0                      | 10.00              | 259.60         | 6,436.7                     | -133.3          | -726.0          | 512,913.78                | 833,331.82               | 32° 24' 23.456 N | 103° 23' 13.920 W |
| 6,600.0                      | 10.00              | 259.60         | 6,535.2                     | -136.4          | -743.1          | 512,910.64                | 833,314.74               | 32° 24' 23.426 N | 103° 23' 14.120 W |
| 6,700.0                      | 10.00              | 259.60         | 6,633.7                     | -139.6          | -760.1          | 512,907.51                | 833,297.66               | 32° 24' 23.397 N | 103° 23' 14.319 W |
| 6,800.0                      | 10.00              | 259.60         | 6,732.1                     | -142.7          | -777.2          | 512,904.37                | 833,280.58               | 32° 24' 23.367 N | 103° 23' 14.519 W |
| 6,900.0                      | 10.00              | 259.60         | 6,830.6                     | -145.8          | -794.3          | 512,901.24                | 833,263.50               | 32° 24' 23.338 N | 103° 23' 14.718 W |
| 7,000.0                      | 10.00              | 259.60         | 6,929.1                     | -149.0          | -811.4          | 512,898.10                | 833,246.42               | 32° 24' 23.308 N | 103° 23' 14.918 W |
| 7,049.7                      | 10.00              | 259.60         | 6,978.0                     | -150.5          | -819.9          | 512,896.54                | 833,237.94               | 32° 24' 23.294 N | 103° 23' 15.017 W |
| <b>BRUSHY CANYON</b>         |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 7,100.0                      | 10.00              | 259.60         | 7,027.6                     | -152.1          | -828.5          | 512,894.96                | 833,229.34               | 32° 24' 23.279 N | 103° 23' 15.117 W |
| 7,200.0                      | 10.00              | 259.60         | 7,126.1                     | -155.2          | -845.5          | 512,891.83                | 833,212.26               | 32° 24' 23.249 N | 103° 23' 15.317 W |
| 7,300.0                      | 10.00              | 259.60         | 7,224.5                     | -158.4          | -862.6          | 512,888.69                | 833,195.18               | 32° 24' 23.220 N | 103° 23' 15.516 W |
| 7,400.0                      | 10.00              | 259.60         | 7,323.0                     | -161.5          | -879.7          | 512,885.56                | 833,178.10               | 32° 24' 23.190 N | 103° 23' 15.716 W |
| 7,500.0                      | 10.00              | 259.60         | 7,421.5                     | -164.6          | -896.8          | 512,882.42                | 833,161.02               | 32° 24' 23.161 N | 103° 23' 15.916 W |
| 7,600.0                      | 10.00              | 259.60         | 7,520.0                     | -167.8          | -913.9          | 512,879.29                | 833,143.94               | 32° 24' 23.131 N | 103° 23' 16.115 W |
| 7,700.0                      | 10.00              | 259.60         | 7,618.5                     | -170.9          | -930.9          | 512,876.15                | 833,126.86               | 32° 24' 23.102 N | 103° 23' 16.315 W |
| 7,771.1                      | 10.00              | 259.60         | 7,688.5                     | -173.1          | -943.1          | 512,873.92                | 833,114.72               | 32° 24' 23.081 N | 103° 23' 16.456 W |
| 7,800.0                      | 9.42               | 259.60         | 7,717.0                     | -174.0          | -947.9          | 512,873.04                | 833,109.93               | 32° 24' 23.072 N | 103° 23' 16.512 W |
| 7,900.0                      | 7.42               | 259.60         | 7,815.9                     | -176.7          | -962.3          | 512,870.40                | 833,095.52               | 32° 24' 23.047 N | 103° 23' 16.681 W |
| 8,000.0                      | 5.42               | 259.60         | 7,915.3                     | -178.7          | -973.3          | 512,868.38                | 833,084.52               | 32° 24' 23.028 N | 103° 23' 16.809 W |
| 8,100.0                      | 3.42               | 259.60         | 8,015.0                     | -180.1          | -980.9          | 512,866.98                | 833,076.93               | 32° 24' 23.015 N | 103° 23' 16.898 W |
| 8,200.0                      | 1.42               | 259.60         | 8,114.9                     | -180.8          | -985.0          | 512,866.22                | 833,072.78               | 32° 24' 23.008 N | 103° 23' 16.946 W |
| 8,271.1                      | 0.00               | 0.00           | 8,186.0                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 8,300.0                      | 0.00               | 0.00           | 8,214.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 8,377.1                      | 0.00               | 0.00           | 8,292.0                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| <b>BONE SPRING LIME</b>      |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 8,400.0                      | 0.00               | 0.00           | 8,314.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 8,500.0                      | 0.00               | 0.00           | 8,414.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 8,514.1                      | 0.00               | 0.00           | 8,429.0                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| <b>AVALON</b>                |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 8,600.0                      | 0.00               | 0.00           | 8,514.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 8,700.0                      | 0.00               | 0.00           | 8,614.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 8,800.0                      | 0.00               | 0.00           | 8,714.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 8,900.0                      | 0.00               | 0.00           | 8,814.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,000.0                      | 0.00               | 0.00           | 8,914.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,100.0                      | 0.00               | 0.00           | 9,014.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,200.0                      | 0.00               | 0.00           | 9,114.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,300.0                      | 0.00               | 0.00           | 9,214.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,400.0                      | 0.00               | 0.00           | 9,314.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,424.1                      | 0.00               | 0.00           | 9,339.0                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| <b>1ST BONE SPRING SAND</b>  |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 9,500.0                      | 0.00               | 0.00           | 9,414.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,600.0                      | 0.00               | 0.00           | 9,514.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,650.1                      | 0.00               | 0.00           | 9,565.0                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |
| <b>2ND BONE SPRING SHALE</b> |                    |                |                             |                 |                 |                           |                          |                  |                   |
| 9,700.0                      | 0.00               | 0.00           | 9,614.9                     | -181.0          | -985.9          | 512,866.06                | 833,071.91               | 32° 24' 23.007 N | 103° 23' 16.957 W |

## Permian Resources

### Survey Report - Geographic

|                  |                            |                                     |                                 |
|------------------|----------------------------|-------------------------------------|---------------------------------|
| <b>Company:</b>  | NEW MEXICO                 | <b>Local Co-ordinate Reference:</b> | Well CASA BONITA 8 ST COM #123H |
| <b>Project:</b>  | (SP) LEA                   | <b>TVD Reference:</b>               | KB @ 3615.0usft                 |
| <b>Site:</b>     | CASA BONITA PROJECT        | <b>MD Reference:</b>                | KB @ 3615.0usft                 |
| <b>Well:</b>     | CASA BONITA 8 ST COM #123H | <b>North Reference:</b>             | Grid                            |
| <b>Wellbore:</b> | OWB                        | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Design:</b>   | PWP0                       | <b>Database:</b>                    | Compass                         |

| Planned Survey              |                 |             |                       |              |              |                     |                    |                  |                   |
|-----------------------------|-----------------|-------------|-----------------------|--------------|--------------|---------------------|--------------------|------------------|-------------------|
| Measured Depth (usft)       | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude         | Longitude         |
| 9,756.6                     | 0.00            | 0.00        | 9,671.5               | -181.0       | -985.9       | 512,866.06          | 833,071.91         | 32° 24' 23.007 N | 103° 23' 16.957 W |
| 9,775.0                     | 2.20            | 359.67      | 9,689.8               | -180.6       | -985.9       | 512,866.41          | 833,071.91         | 32° 24' 23.010 N | 103° 23' 16.957 W |
| 9,800.0                     | 5.20            | 359.67      | 9,714.8               | -179.0       | -985.9       | 512,868.03          | 833,071.90         | 32° 24' 23.026 N | 103° 23' 16.957 W |
| 9,825.0                     | 8.20            | 359.67      | 9,739.6               | -176.1       | -985.9       | 512,870.95          | 833,071.88         | 32° 24' 23.055 N | 103° 23' 16.956 W |
| 9,850.0                     | 11.20           | 359.67      | 9,764.3               | -171.9       | -985.9       | 512,875.16          | 833,071.86         | 32° 24' 23.097 N | 103° 23' 16.956 W |
| 9,875.0                     | 14.20           | 359.67      | 9,788.6               | -166.4       | -986.0       | 512,880.65          | 833,071.82         | 32° 24' 23.151 N | 103° 23' 16.956 W |
| 9,900.0                     | 17.20           | 359.67      | 9,812.7               | -159.6       | -986.0       | 512,887.42          | 833,071.78         | 32° 24' 23.218 N | 103° 23' 16.956 W |
| 9,925.0                     | 20.20           | 359.67      | 9,836.4               | -151.6       | -986.1       | 512,895.43          | 833,071.74         | 32° 24' 23.297 N | 103° 23' 16.956 W |
| 9,950.0                     | 23.20           | 359.67      | 9,859.6               | -142.4       | -986.1       | 512,904.68          | 833,071.68         | 32° 24' 23.389 N | 103° 23' 16.955 W |
| 9,975.0                     | 26.20           | 359.67      | 9,882.3               | -131.9       | -986.2       | 512,915.12          | 833,071.62         | 32° 24' 23.492 N | 103° 23' 16.955 W |
| 10,000.0                    | 29.20           | 359.67      | 9,904.5               | -120.3       | -986.2       | 512,926.74          | 833,071.56         | 32° 24' 23.607 N | 103° 23' 16.954 W |
| 10,011.0                    | 30.52           | 359.67      | 9,914.0               | -114.8       | -986.3       | 512,932.23          | 833,071.52         | 32° 24' 23.661 N | 103° 23' 16.954 W |
| <b>2ND BONE SPRING SAND</b> |                 |             |                       |              |              |                     |                    |                  |                   |
| 10,025.0                    | 32.20           | 359.67      | 9,925.9               | -107.6       | -986.3       | 512,939.51          | 833,071.48         | 32° 24' 23.733 N | 103° 23' 16.954 W |
| 10,050.0                    | 35.20           | 359.67      | 9,946.7               | -93.7        | -986.4       | 512,953.38          | 833,071.40         | 32° 24' 23.871 N | 103° 23' 16.953 W |
| 10,075.0                    | 38.20           | 359.67      | 9,966.8               | -78.7        | -986.5       | 512,968.32          | 833,071.31         | 32° 24' 24.018 N | 103° 23' 16.953 W |
| 10,100.0                    | 41.20           | 359.67      | 9,986.0               | -62.8        | -986.6       | 512,984.28          | 833,071.22         | 32° 24' 24.176 N | 103° 23' 16.952 W |
| 10,125.0                    | 44.20           | 359.67      | 10,004.4              | -45.8        | -986.7       | 513,001.24          | 833,071.12         | 32° 24' 24.344 N | 103° 23' 16.952 W |
| 10,150.0                    | 47.20           | 359.67      | 10,021.8              | -27.9        | -986.8       | 513,019.13          | 833,071.02         | 32° 24' 24.521 N | 103° 23' 16.951 W |
| 10,175.0                    | 50.20           | 359.67      | 10,038.3              | -9.2         | -986.9       | 513,037.91          | 833,070.91         | 32° 24' 24.707 N | 103° 23' 16.951 W |
| 10,200.0                    | 53.20           | 359.67      | 10,053.8              | 10.5         | -987.0       | 513,057.52          | 833,070.80         | 32° 24' 24.901 N | 103° 23' 16.950 W |
| 10,225.0                    | 56.20           | 359.67      | 10,068.3              | 30.9         | -987.1       | 513,077.93          | 833,070.68         | 32° 24' 25.103 N | 103° 23' 16.949 W |
| 10,250.0                    | 59.20           | 359.67      | 10,081.6              | 52.0         | -987.2       | 513,099.05          | 833,070.55         | 32° 24' 25.312 N | 103° 23' 16.948 W |
| 10,275.0                    | 62.20           | 359.67      | 10,093.9              | 73.8         | -987.4       | 513,120.85          | 833,070.43         | 32° 24' 25.528 N | 103° 23' 16.948 W |
| 10,300.0                    | 65.20           | 359.67      | 10,104.9              | 96.2         | -987.5       | 513,143.26          | 833,070.30         | 32° 24' 25.750 N | 103° 23' 16.947 W |
| 10,325.0                    | 68.20           | 359.67      | 10,114.8              | 119.2        | -987.6       | 513,166.22          | 833,070.16         | 32° 24' 25.977 N | 103° 23' 16.946 W |
| 10,350.0                    | 71.20           | 359.67      | 10,123.5              | 142.6        | -987.8       | 513,189.67          | 833,070.03         | 32° 24' 26.209 N | 103° 23' 16.945 W |
| 10,375.0                    | 74.20           | 359.67      | 10,130.9              | 166.5        | -987.9       | 513,213.53          | 833,069.89         | 32° 24' 26.445 N | 103° 23' 16.944 W |
| 10,400.0                    | 77.20           | 359.67      | 10,137.1              | 190.7        | -988.1       | 513,237.76          | 833,069.75         | 32° 24' 26.684 N | 103° 23' 16.943 W |
| 10,425.0                    | 80.20           | 359.67      | 10,142.0              | 215.2        | -988.2       | 513,262.27          | 833,069.61         | 32° 24' 26.927 N | 103° 23' 16.943 W |
| 10,450.0                    | 83.20           | 359.67      | 10,145.6              | 239.9        | -988.3       | 513,287.00          | 833,069.46         | 32° 24' 27.172 N | 103° 23' 16.942 W |
| 10,475.0                    | 86.20           | 359.67      | 10,147.9              | 264.8        | -988.5       | 513,311.89          | 833,069.32         | 32° 24' 27.418 N | 103° 23' 16.941 W |
| 10,500.0                    | 89.20           | 359.67      | 10,148.9              | 289.8        | -988.6       | 513,336.87          | 833,069.17         | 32° 24' 27.665 N | 103° 23' 16.940 W |
| 10,506.6                    | 90.00           | 359.67      | 10,149.0              | 296.5        | -988.7       | 513,343.52          | 833,069.13         | 32° 24' 27.731 N | 103° 23' 16.940 W |
| 10,600.0                    | 90.00           | 359.67      | 10,149.0              | 389.8        | -989.2       | 513,436.87          | 833,068.59         | 32° 24' 28.655 N | 103° 23' 16.936 W |
| 10,700.0                    | 90.00           | 359.67      | 10,149.0              | 489.8        | -989.8       | 513,536.87          | 833,068.01         | 32° 24' 29.644 N | 103° 23' 16.933 W |
| 10,800.0                    | 90.00           | 359.67      | 10,149.0              | 589.8        | -990.4       | 513,636.86          | 833,067.43         | 32° 24' 30.634 N | 103° 23' 16.929 W |
| 10,900.0                    | 90.00           | 359.67      | 10,149.0              | 689.8        | -991.0       | 513,736.86          | 833,066.85         | 32° 24' 31.623 N | 103° 23' 16.926 W |
| 11,000.0                    | 90.00           | 359.67      | 10,149.0              | 789.8        | -991.5       | 513,836.86          | 833,066.27         | 32° 24' 32.613 N | 103° 23' 16.922 W |
| 11,100.0                    | 90.00           | 359.67      | 10,149.0              | 889.8        | -992.1       | 513,936.86          | 833,065.69         | 32° 24' 33.602 N | 103° 23' 16.919 W |
| 11,200.0                    | 90.00           | 359.67      | 10,149.0              | 989.8        | -992.7       | 514,036.86          | 833,065.10         | 32° 24' 34.592 N | 103° 23' 16.915 W |
| 11,300.0                    | 90.00           | 359.67      | 10,149.0              | 1,089.8      | -993.3       | 514,136.86          | 833,064.52         | 32° 24' 35.581 N | 103° 23' 16.912 W |
| 11,400.0                    | 90.00           | 359.67      | 10,149.0              | 1,189.8      | -993.9       | 514,236.85          | 833,063.94         | 32° 24' 36.571 N | 103° 23' 16.908 W |
| 11,500.0                    | 90.00           | 359.67      | 10,149.0              | 1,289.8      | -994.4       | 514,336.85          | 833,063.36         | 32° 24' 37.560 N | 103° 23' 16.905 W |
| 11,600.0                    | 90.00           | 359.67      | 10,149.0              | 1,389.8      | -995.0       | 514,436.85          | 833,062.78         | 32° 24' 38.549 N | 103° 23' 16.901 W |
| 11,700.0                    | 90.00           | 359.67      | 10,149.0              | 1,489.8      | -995.6       | 514,536.85          | 833,062.20         | 32° 24' 39.539 N | 103° 23' 16.898 W |
| 11,800.0                    | 90.00           | 359.67      | 10,149.0              | 1,589.8      | -996.2       | 514,636.85          | 833,061.62         | 32° 24' 40.528 N | 103° 23' 16.894 W |
| 11,900.0                    | 90.00           | 359.67      | 10,149.0              | 1,689.8      | -996.8       | 514,736.85          | 833,061.04         | 32° 24' 41.518 N | 103° 23' 16.890 W |
| 12,000.0                    | 90.00           | 359.67      | 10,149.0              | 1,789.8      | -997.3       | 514,836.84          | 833,060.45         | 32° 24' 42.507 N | 103° 23' 16.887 W |
| 12,100.0                    | 90.00           | 359.67      | 10,149.0              | 1,889.8      | -997.9       | 514,936.84          | 833,059.87         | 32° 24' 43.497 N | 103° 23' 16.883 W |
| 12,200.0                    | 90.00           | 359.67      | 10,149.0              | 1,989.8      | -998.5       | 515,036.84          | 833,059.29         | 32° 24' 44.486 N | 103° 23' 16.880 W |
| 12,300.0                    | 90.00           | 359.67      | 10,149.0              | 2,089.8      | -999.1       | 515,136.84          | 833,058.71         | 32° 24' 45.476 N | 103° 23' 16.876 W |
| 12,400.0                    | 90.00           | 359.67      | 10,149.0              | 2,189.8      | -999.7       | 515,236.84          | 833,058.13         | 32° 24' 46.465 N | 103° 23' 16.873 W |
| 12,500.0                    | 90.00           | 359.67      | 10,149.0              | 2,289.8      | -1,000.3     | 515,336.84          | 833,057.55         | 32° 24' 47.455 N | 103° 23' 16.869 W |
| 12,600.0                    | 90.00           | 359.67      | 10,149.0              | 2,389.8      | -1,000.8     | 515,436.83          | 833,056.97         | 32° 24' 48.444 N | 103° 23' 16.866 W |



## Permian Resources

### Survey Report - Geographic

|                  |                            |                                     |                                 |
|------------------|----------------------------|-------------------------------------|---------------------------------|
| <b>Company:</b>  | NEW MEXICO                 | <b>Local Co-ordinate Reference:</b> | Well CASA BONITA 8 ST COM #123H |
| <b>Project:</b>  | (SP) LEA                   | <b>TVD Reference:</b>               | KB @ 3615.0usft                 |
| <b>Site:</b>     | CASA BONITA PROJECT        | <b>MD Reference:</b>                | KB @ 3615.0usft                 |
| <b>Well:</b>     | CASA BONITA 8 ST COM #123H | <b>North Reference:</b>             | Grid                            |
| <b>Wellbore:</b> | OWB                        | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Design:</b>   | PWPO                       | <b>Database:</b>                    | Compass                         |

| Planned Survey              |                    |                |                             |                 |                 |                           |                          |                  |                   |
|-----------------------------|--------------------|----------------|-----------------------------|-----------------|-----------------|---------------------------|--------------------------|------------------|-------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(°) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Map<br>Northing<br>(usft) | Map<br>Easting<br>(usft) | Latitude         | Longitude         |
| 12,700.0                    | 90.00              | 359.67         | 10,149.0                    | 2,489.8         | -1,001.4        | 515,536.83                | 833,056.39               | 32° 24' 49.434 N | 103° 23' 16.862 W |
| 12,800.0                    | 90.00              | 359.67         | 10,149.0                    | 2,589.8         | -1,002.0        | 515,636.83                | 833,055.80               | 32° 24' 50.423 N | 103° 23' 16.859 W |
| 12,900.0                    | 90.00              | 359.67         | 10,149.0                    | 2,689.8         | -1,002.6        | 515,736.83                | 833,055.22               | 32° 24' 51.413 N | 103° 23' 16.855 W |
| 13,000.0                    | 90.00              | 359.67         | 10,149.0                    | 2,789.8         | -1,003.2        | 515,836.83                | 833,054.64               | 32° 24' 52.402 N | 103° 23' 16.852 W |
| 13,100.0                    | 90.00              | 359.67         | 10,149.0                    | 2,889.8         | -1,003.7        | 515,936.82                | 833,054.06               | 32° 24' 53.392 N | 103° 23' 16.848 W |
| 13,200.0                    | 90.00              | 359.67         | 10,149.0                    | 2,989.8         | -1,004.3        | 516,036.82                | 833,053.48               | 32° 24' 54.381 N | 103° 23' 16.844 W |
| 13,300.0                    | 90.00              | 359.67         | 10,149.0                    | 3,089.8         | -1,004.9        | 516,136.82                | 833,052.90               | 32° 24' 55.371 N | 103° 23' 16.841 W |
| 13,400.0                    | 90.00              | 359.67         | 10,149.0                    | 3,189.8         | -1,005.5        | 516,236.82                | 833,052.32               | 32° 24' 56.360 N | 103° 23' 16.837 W |
| 13,500.0                    | 90.00              | 359.67         | 10,149.0                    | 3,289.8         | -1,006.1        | 516,336.82                | 833,051.74               | 32° 24' 57.350 N | 103° 23' 16.834 W |
| 13,600.0                    | 90.00              | 359.67         | 10,149.0                    | 3,389.8         | -1,006.6        | 516,436.82                | 833,051.16               | 32° 24' 58.339 N | 103° 23' 16.830 W |
| 13,700.0                    | 90.00              | 359.67         | 10,149.0                    | 3,489.8         | -1,007.2        | 516,536.81                | 833,050.57               | 32° 24' 59.328 N | 103° 23' 16.827 W |
| 13,800.0                    | 90.00              | 359.67         | 10,149.0                    | 3,589.8         | -1,007.8        | 516,636.81                | 833,049.99               | 32° 25' 0.318 N  | 103° 23' 16.823 W |
| 13,900.0                    | 90.00              | 359.67         | 10,149.0                    | 3,689.7         | -1,008.4        | 516,736.81                | 833,049.41               | 32° 25' 1.307 N  | 103° 23' 16.820 W |
| 14,000.0                    | 90.00              | 359.67         | 10,149.0                    | 3,789.7         | -1,009.0        | 516,836.81                | 833,048.83               | 32° 25' 2.297 N  | 103° 23' 16.816 W |
| 14,100.0                    | 90.00              | 359.67         | 10,149.0                    | 3,889.7         | -1,009.5        | 516,936.81                | 833,048.25               | 32° 25' 3.286 N  | 103° 23' 16.813 W |
| 14,200.0                    | 90.00              | 359.67         | 10,149.0                    | 3,989.7         | -1,010.1        | 517,036.81                | 833,047.67               | 32° 25' 4.276 N  | 103° 23' 16.809 W |
| 14,300.0                    | 90.00              | 359.67         | 10,149.0                    | 4,089.7         | -1,010.7        | 517,136.80                | 833,047.09               | 32° 25' 5.265 N  | 103° 23' 16.806 W |
| 14,400.0                    | 90.00              | 359.67         | 10,149.0                    | 4,189.7         | -1,011.3        | 517,236.80                | 833,046.51               | 32° 25' 6.255 N  | 103° 23' 16.802 W |
| 14,500.0                    | 90.00              | 359.67         | 10,149.0                    | 4,289.7         | -1,011.9        | 517,336.80                | 833,045.92               | 32° 25' 7.244 N  | 103° 23' 16.798 W |
| 14,600.0                    | 90.00              | 359.67         | 10,149.0                    | 4,389.7         | -1,012.5        | 517,436.80                | 833,045.34               | 32° 25' 8.234 N  | 103° 23' 16.795 W |
| 14,700.0                    | 90.00              | 359.67         | 10,149.0                    | 4,489.7         | -1,013.0        | 517,536.80                | 833,044.76               | 32° 25' 9.223 N  | 103° 23' 16.791 W |
| 14,800.0                    | 90.00              | 359.67         | 10,149.0                    | 4,589.7         | -1,013.6        | 517,636.80                | 833,044.18               | 32° 25' 10.213 N | 103° 23' 16.788 W |
| 14,900.0                    | 90.00              | 359.67         | 10,149.0                    | 4,689.7         | -1,014.2        | 517,736.79                | 833,043.60               | 32° 25' 11.202 N | 103° 23' 16.784 W |
| 15,000.0                    | 90.00              | 359.67         | 10,149.0                    | 4,789.7         | -1,014.8        | 517,836.79                | 833,043.02               | 32° 25' 12.192 N | 103° 23' 16.781 W |
| 15,100.0                    | 90.00              | 359.67         | 10,149.0                    | 4,889.7         | -1,015.4        | 517,936.79                | 833,042.44               | 32° 25' 13.181 N | 103° 23' 16.777 W |
| 15,200.0                    | 90.00              | 359.67         | 10,149.0                    | 4,989.7         | -1,015.9        | 518,036.79                | 833,041.86               | 32° 25' 14.171 N | 103° 23' 16.774 W |
| 15,300.0                    | 90.00              | 359.67         | 10,149.0                    | 5,089.7         | -1,016.5        | 518,136.79                | 833,041.27               | 32° 25' 15.160 N | 103° 23' 16.770 W |
| 15,400.0                    | 90.00              | 359.67         | 10,149.0                    | 5,189.7         | -1,017.1        | 518,236.79                | 833,040.69               | 32° 25' 16.150 N | 103° 23' 16.767 W |
| 15,500.0                    | 90.00              | 359.67         | 10,149.0                    | 5,289.7         | -1,017.7        | 518,336.78                | 833,040.11               | 32° 25' 17.139 N | 103° 23' 16.763 W |
| 15,600.0                    | 90.00              | 359.67         | 10,149.0                    | 5,389.7         | -1,018.3        | 518,436.78                | 833,039.53               | 32° 25' 18.128 N | 103° 23' 16.760 W |
| 15,700.0                    | 90.00              | 359.67         | 10,149.0                    | 5,489.7         | -1,018.8        | 518,536.78                | 833,038.95               | 32° 25' 19.118 N | 103° 23' 16.756 W |
| 15,800.0                    | 90.00              | 359.67         | 10,149.0                    | 5,589.7         | -1,019.4        | 518,636.78                | 833,038.37               | 32° 25' 20.107 N | 103° 23' 16.752 W |
| 15,900.0                    | 90.00              | 359.67         | 10,149.0                    | 5,689.7         | -1,020.0        | 518,736.78                | 833,037.79               | 32° 25' 21.097 N | 103° 23' 16.749 W |
| 16,000.0                    | 90.00              | 359.67         | 10,149.0                    | 5,789.7         | -1,020.6        | 518,836.78                | 833,037.21               | 32° 25' 22.086 N | 103° 23' 16.745 W |
| 16,100.0                    | 90.00              | 359.67         | 10,149.0                    | 5,889.7         | -1,021.2        | 518,936.77                | 833,036.63               | 32° 25' 23.076 N | 103° 23' 16.742 W |
| 16,200.0                    | 90.00              | 359.67         | 10,149.0                    | 5,989.7         | -1,021.8        | 519,036.77                | 833,036.04               | 32° 25' 24.065 N | 103° 23' 16.738 W |
| 16,300.0                    | 90.00              | 359.67         | 10,149.0                    | 6,089.7         | -1,022.3        | 519,136.77                | 833,035.46               | 32° 25' 25.055 N | 103° 23' 16.735 W |
| 16,400.0                    | 90.00              | 359.67         | 10,149.0                    | 6,189.7         | -1,022.9        | 519,236.77                | 833,034.88               | 32° 25' 26.044 N | 103° 23' 16.731 W |
| 16,500.0                    | 90.00              | 359.67         | 10,149.0                    | 6,289.7         | -1,023.5        | 519,336.77                | 833,034.30               | 32° 25' 27.034 N | 103° 23' 16.728 W |
| 16,600.0                    | 90.00              | 359.67         | 10,149.0                    | 6,389.7         | -1,024.1        | 519,436.77                | 833,033.72               | 32° 25' 28.023 N | 103° 23' 16.724 W |
| 16,700.0                    | 90.00              | 359.67         | 10,149.0                    | 6,489.7         | -1,024.7        | 519,536.76                | 833,033.14               | 32° 25' 29.013 N | 103° 23' 16.721 W |
| 16,800.0                    | 90.00              | 359.67         | 10,149.0                    | 6,589.7         | -1,025.2        | 519,636.76                | 833,032.56               | 32° 25' 30.002 N | 103° 23' 16.717 W |
| 16,900.0                    | 90.00              | 359.67         | 10,149.0                    | 6,689.7         | -1,025.8        | 519,736.76                | 833,031.98               | 32° 25' 30.992 N | 103° 23' 16.713 W |
| 17,000.0                    | 90.00              | 359.67         | 10,149.0                    | 6,789.7         | -1,026.4        | 519,836.76                | 833,031.39               | 32° 25' 31.981 N | 103° 23' 16.710 W |
| 17,100.0                    | 90.00              | 359.67         | 10,149.0                    | 6,889.7         | -1,027.0        | 519,936.76                | 833,030.81               | 32° 25' 32.971 N | 103° 23' 16.706 W |
| 17,200.0                    | 90.00              | 359.67         | 10,149.0                    | 6,989.7         | -1,027.6        | 520,036.76                | 833,030.23               | 32° 25' 33.960 N | 103° 23' 16.703 W |
| 17,300.0                    | 90.00              | 359.67         | 10,149.0                    | 7,089.7         | -1,028.1        | 520,136.75                | 833,029.65               | 32° 25' 34.950 N | 103° 23' 16.699 W |
| 17,400.0                    | 90.00              | 359.67         | 10,149.0                    | 7,189.7         | -1,028.7        | 520,236.75                | 833,029.07               | 32° 25' 35.939 N | 103° 23' 16.696 W |
| 17,500.0                    | 90.00              | 359.67         | 10,149.0                    | 7,289.7         | -1,029.3        | 520,336.75                | 833,028.49               | 32° 25' 36.928 N | 103° 23' 16.692 W |
| 17,600.0                    | 90.00              | 359.67         | 10,149.0                    | 7,389.7         | -1,029.9        | 520,436.75                | 833,027.91               | 32° 25' 37.918 N | 103° 23' 16.689 W |
| 17,700.0                    | 90.00              | 359.67         | 10,149.0                    | 7,489.7         | -1,030.5        | 520,536.75                | 833,027.33               | 32° 25' 38.907 N | 103° 23' 16.685 W |
| 17,800.0                    | 90.00              | 359.67         | 10,149.0                    | 7,589.7         | -1,031.1        | 520,636.75                | 833,026.74               | 32° 25' 39.897 N | 103° 23' 16.682 W |
| 17,871.6                    | 90.00              | 359.67         | 10,149.0                    | 7,661.3         | -1,031.5        | 520,708.37                | 833,026.33               | 32° 25' 40.606 N | 103° 23' 16.679 W |

## Permian Resources

### Survey Report - Geographic

|                  |                            |                                     |                                 |
|------------------|----------------------------|-------------------------------------|---------------------------------|
| <b>Company:</b>  | NEW MEXICO                 | <b>Local Co-ordinate Reference:</b> | Well CASA BONITA 8 ST COM #123H |
| <b>Project:</b>  | (SP) LEA                   | <b>TVD Reference:</b>               | KB @ 3615.0usft                 |
| <b>Site:</b>     | CASA BONITA PROJECT        | <b>MD Reference:</b>                | KB @ 3615.0usft                 |
| <b>Well:</b>     | CASA BONITA 8 ST COM #123H | <b>North Reference:</b>             | Grid                            |
| <b>Wellbore:</b> | OWB                        | <b>Survey Calculation Method:</b>   | Minimum Curvature               |
| <b>Design:</b>   | PWP0                       | <b>Database:</b>                    | Compass                         |

#### Design Targets

##### Target Name

| - hit/miss target<br>- Shape                                                                                                 | Dip Angle<br>(°) | Dip Dir.<br>(°) | TVD<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Northing<br>(usft) | Easting<br>(usft) | Latitude         | Longitude         |
|------------------------------------------------------------------------------------------------------------------------------|------------------|-----------------|---------------|-----------------|-----------------|--------------------|-------------------|------------------|-------------------|
| BHL-CASA BONITA 1<br>- plan hits target center<br>- Point                                                                    | 0.00             | 0.00            | 10,149.0      | 7,661.3         | -1,031.5        | 520,708.37         | 833,026.33        | 32° 25' 40.606 N | 103° 23' 16.679 W |
| FTP-CASA BONITA 1:<br>- plan misses target center by 163.4usft at 10156.5usft MD (10026.2 TVD, -23.1 N, -986.8 E)<br>- Point | 0.00             | 0.00            | 10,149.0      | -131.0          | -985.9          | 512,916.07         | 833,071.91        | 32° 24' 23.501 N | 103° 23' 16.951 W |

#### Formations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Name                  | Lithology | Dip<br>(°) | Dip<br>Direction<br>(°) |
|-----------------------------|-----------------------------|-----------------------|-----------|------------|-------------------------|
| 1,707.0                     | 1,707.0                     | RUSTLER               |           |            |                         |
| 2,216.2                     | 2,216.0                     | SALADO                |           |            |                         |
| 4,232.9                     | 4,204.0                     | CAPITAN               |           |            |                         |
| 5,726.6                     | 5,675.0                     | CHERRY CANYON         |           |            |                         |
| 6,041.3                     | 5,985.0                     | MANZANITA LIME        |           |            |                         |
| 7,049.7                     | 6,978.0                     | BRUSHY CANYON         |           |            |                         |
| 8,377.1                     | 8,292.0                     | BONE SPRING LIME      |           |            |                         |
| 8,514.1                     | 8,429.0                     | AVALON                |           |            |                         |
| 9,424.1                     | 9,339.0                     | 1ST BONE SPRING SAND  |           |            |                         |
| 9,650.1                     | 9,565.0                     | 2ND BONE SPRING SHALE |           |            |                         |
| 10,011.0                    | 9,914.0                     | 2ND BONE SPRING SAND  |           |            |                         |

#### Plan Annotations

| Measured<br>Depth<br>(usft) | Vertical<br>Depth<br>(usft) | Local Coordinates |                 | Comment                         |
|-----------------------------|-----------------------------|-------------------|-----------------|---------------------------------|
|                             |                             | +N/-S<br>(usft)   | +E/-W<br>(usft) |                                 |
| 2000                        | 2000                        | 0                 | 0               | Start Build 2.00                |
| 2500                        | 2497                        | -8                | -43             | Start 5271.1 hold at 2500.0 MD  |
| 7771                        | 7689                        | -173              | -943            | Start Drop -2.00                |
| 8271                        | 8186                        | -181              | -986            | Start 1485.5 hold at 8271.1 MD  |
| 9757                        | 9671                        | -181              | -986            | Start DLS 12.00 TFO 359.67      |
| 10,507                      | 10,149                      | 296               | -989            | Start 7365.0 hold at 10506.6 MD |
| 17,872                      | 10,149                      | 7661              | -1031           | TD at 17871.6                   |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

Intent ☐ As Drilled ☐

|                |                |             |
|----------------|----------------|-------------|
| API #          |                |             |
| Operator Name: | Property Name: | Well Number |

## Kick Off Point (KOP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      | NAD      |        |

## First Take Point (FTP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      | NAD      |        |

## Last Take Point (LTP)

|          |         |          |       |     |           |          |      |          |        |
|----------|---------|----------|-------|-----|-----------|----------|------|----------|--------|
| UL       | Section | Township | Range | Lot | Feet      | From N/S | Feet | From E/W | County |
| Latitude |         |          |       |     | Longitude |          |      | NAD      |        |

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

|                |                |             |
|----------------|----------------|-------------|
| API #          |                |             |
| Operator Name: | Property Name: | Well Number |

KZ 06/29/2018